Captaris

RightFax

Version 9.3 Feature Pack 1

Administrator's Guide

v. 1.1

Edition

Information in this document applies to version 9.3 Feature Pack 1 of the RightFax Administrator's Guide.

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Captaris
10885 NE 4th Street
Suite 400
Bellevue, WA 98004
(425) 455-6000
http://www.captaris.com

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Chapter 1
Introduction

About the RightFax System

The RightFax system is a comprehensive network fax solution for creating, sending, receiving, and managing faxes directly from a user's desktop computer. RightFax features and intuitive design make faxing as easy as printing to a network printer.

A user can enhance the fax by adding a cover page, overlaying a form, attaching documents, and inserting graphics.

FaxUtil is the RightFax mailbox where users create, view, print, and manage faxes. With FaxUtil, users can forward, route, and delete faxes. They can view other users' fax mailboxes and delegate views into their personal fax mailboxes.

The RightFax fax server manages network print queues assigned to faxing, converts outgoing faxes, schedules outgoing faxes, and routes incoming faxes. Routing can be optimized with Intelligent Least-cost Routing™ rules. The server consists of several services that run on one server computer or several networked computers to distribute heavy workloads.

Similarly, RightFax fax board services can be installed on remote servers to distribute the workload across several computers and to provide expanded channel capacity and system redundancy.

A RightFax e-mail gateway acts as a communication link between the RightFax server and an e-mail server. With an e-mail gateway, the user's customary e-mail client software can serve as the fax client. RightFax includes e-mail gateways for Novell GroupWise and SMTP/POP3. Advanced gateways for Microsoft Exchange and Lotus Notes are available as separate modules.

Using This Guide

The *RightFax Administrator's Guide* is designed for RightFax administrators who will be installing and configuring the RightFax software on both client and server computers. This guide assumes you have knowledge of the Windows NT® based operating systems operating systems, as well as knowledge of networking systems and your own organization's network.

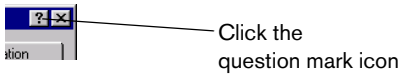
Other Resources for RightFax Users

Because your RightFax servers can support dozens, hundreds, or even thousands of fax users, RightFax has designed its end-user documentation to be thorough, easy-to-use, and easily accessible.

In addition to the user's guides, quick reference cards give you quick and easy access to the most common fax management features of the FaxUtil, Microsoft Exchange, Lotus Notes, and Web Client fax client applications. These useful cards are compact and can be easily distributed throughout even the largest organizations.

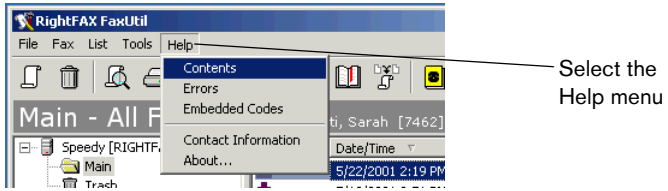
Getting Help Online

Most of the RightFax windows and dialog boxes include context-sensitive help. Typically, this help describes each field and option in a dialog box. This context-sensitive help can be launched from the question mark icon in the title bar of a dialog box.



- Click this icon, and then click any option on the dialog box to view its definition.
- Or, press F1 to view a definition.

Online help for tasks or conceptual topics also is available. View this help by selecting the **Help** menu. You can browse the help for a topic or use the index to look up key words and terms.

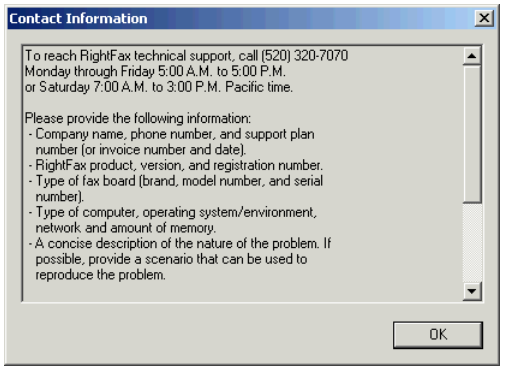


The RightFax Web site offers the latest product information. Updated documentation, a searchable customer support knowledgebase, software downloads, and the latest product offerings are all online at www.captaris.com/rightfax.

Editing Contact Information in FaxUtil

In the FaxUtil **Help** menu, users can select **Contact Information**, and a dialog box opens that lists RightFax technical support contact information.

Figure 1.1 The Contact Information Dialog Box



This contact information appears in English with RightFax contact information, but you can edit the text to provide customized information. To do so, edit the text file Contact.txt located in the \RightFax\Bin folder on the RightFax server. You can enter 24 lines of text and up to 59 characters per line.

Captaris Training Services

RightFax training gives you the skills to optimize your RightFax solution. Our comprehensive technical, administrative, and user training programs produce full utilization and understanding of RightFax products. Regular classes are held at the state-of-the-art RightFax Training Center in Tucson, Arizona, throughout the year, or you can choose the convenience of training at one of our regional locations. Training materials and computer-based training tools are also available. For more information on RightFax training, please

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Captaris Implementation Services

Captaris Implementation Services offers a team of highly skilled engineers who are experts in the deployment, implementation, and integration of RightFax solutions. Implementation services include installation and configuration, upgrades, configuration review, and advanced integration services. Whether it's through remote dial-in, an on-site implementation, or a combination of both, the Implementation Services team can quickly integrate RightFax solutions with your existing applications.

Customer Support

Your *Customer Support Guide* includes detailed information about the support options available to RightFax customers. Please fill out the *RightFax Software Warranty & Registration Card* and return it immediately. If you have questions of a technical nature, contact your organization's RightFax administrator or network administrator before calling the RightFax customer support department. On the RightFax Web site, a database of customer support knowledge contains a wealth of information on installing, configuring, and maintaining RightFax software.

RightFax Customer Support:

Captaris
Suite 210
6303 E. Tanque Verde
Tucson, Arizona 85715 USA

Voice: (520) 320-7070
Fax: (520) 321-7461
Web: www.captaris.com/rightfax
E-mail: tech@captaris.com

5:00 A.M. to 5:00 P.M. Pacific time, Monday through Friday

7:00 A.M. to 3:00 P.M. Pacific time, Saturday

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Chapter 2

Understanding the RightFax Servers

Thank you for choosing RightFax fax server software. With this comprehensive network fax solution, you can create, send, receive, and manage faxes directly from your desktop computer, saving time, money, and manpower. The RightFax system features and intuitive design make faxing as easy as printing to a network printer. Administrators will find that because it is a native Windows service, RightFax is easy to install, configure, and manage. RightFax offers the following versions of its fax server software:

- RightFax Business Server
- RightFax Enterprise Server
- RightFax Enterprise or Business Server with the Integration Module
- RightFax Satellite Server

RightFax Business Server

This RightFax server supports unlimited user accounts. It includes one fax channel, but is expandable to up to 30 fax channels.

RightFax Enterprise Server

This RightFax server supports unlimited user accounts. It includes three WorkServers and one fax channel, expandable to support unlimited fax channels. This server includes the RightFax Web Client™ and the OCR Router™, OCR Converter™, Docs-on-Demand™, and TeleConnect™ modules.

The Enterprise server is also available as a product suite that includes the RightFax Enterprise server, plus the Gateway for Microsoft® Exchange, the Gateway for Lotus Notes®, the Document Management Connector™, and the SNMP Alerting™, and PDF modules.

RightFax Server with the Integration Module

The RightFax server and the RightFax Integration Module enable applications for information exchange. The Integration Module integrates RightFax with applications on mainframe, mid-range, and local area network host systems.

- The RightFax Small Business Integration Module can be installed on the RightFax Business and Enterprise servers.
- The RightFax Enterprise Integration Module can be installed on the Enterprise server.

RightFax Satellite Server

This RightFax server supports up to 15 user accounts. It includes two WorkServers and two fax channels.

How RightFax Works

RightFax is comprised of these basic components:

- Fax image files
- Fax database (SQL)
- Fax server services
- Fax client programs

Before configuring RightFax for your particular network installation, you should understand the function of each component.

Fax image files

All sent and received faxes are stored as compressed graphic image files (CCITT Group III format) in the RightFax\Image folder. Fax image files are assigned file names by the RightFax server and these file names are directly referenced by the RightFax SQL database.

Each individual page of a fax is saved as a separate file. All files associated with a single fax will have the same file name, but different file extensions will indicate the page number. File extensions for RightFax image files are numeric, starting with number 301, indicating the first page of the fax. The file extension increments by 1 for each subsequent page of the fax.

Warning *If you re-name RightFax image files, they will not be recognized by the RightFax server.*

A typical fax consumes 35 Kb, though some can be as large as 150 Kb or as small as 5 Kb per page. Because fax images can consume a large amount of disk space, you should dedicate at least 500 Mb of storage to your RightFax server. More space may be required depending on the number of faxes sent and received, and how frequently old faxes are deleted.

Note *RightFax monitors the amount of free disk space on the server and will shut down certain processing elements when available disk space falls below 50 Mb. When sufficient disk space is restored, fax processing continues automatically.*

Fax database

RightFax uses a SQL database to manage RightFax system objects (such as users, groups, and printers) and to organize, track, and route faxes. RightFax provides some database management and diagnostic utilities. Third-party and custom SQL utilities can also be applied to the RightFax database. For more information on the RightFax database and applicable SQL database management tools, see Chapter 29, "Backing Up and Maintaining the RightFax Software and Database".

Fax server services

The RightFax fax server consists of several services: the RightFax Server module, RightFax WorkServer modules, RightFax RPC Server module, RightFax Database module, RightFax Queue Handler, RightFax BoardServer module and, optionally, the e-mail gateway and integration modules. In most cases, all the services run on the same machine so that the Server module can automatically start and stop the programs as necessary. However, the RightFax WorkServer and BoardServer modules can run on different computers to redistribute heavy workloads.

The RightFax Server Module

Manages the network print queues assigned to faxing, controls the conversion of outgoing faxes, and works with the BoardServer module to schedule outgoing faxes and route incoming faxes.

The RightFax WorkServer Module

Performs one or more functions on behalf of the RightFax Server module. It periodically asks the RightFax database if its services have been requested, executes requested tasks, and notifies the database when tasks are complete. You can configure multiple WorkServer modules to handle processor-intensive tasks such as print-to-fax file conversions. For example, one WorkServer can convert PCL-5 print files into fax images, while another WorkServer separately handles automatic printing of incoming faxes.

The RightFax DocTransport Module

Lets you configure the methods by which RightFax will be able to transmit documents. This module lets you configure fax boards for conventional fax transmission, as well as set up RightFax for SMS messaging, Fax-over-IP, DOCplus, and Eicon fax boards.

The RightFax BoardServer Module

Acts as an interpreter between the fax boards and the Server module. It handles requests to schedule outgoing faxes for transmission and informs the Server module when a new fax has been received and needs to be processed. Multiple BoardServer modules can be installed on remote servers to distribute the workload across several machines and provide expanded channel capacity and system redundancy.

The RightFax Database Module

This is the fax database manager. It accesses the SQL fax database to provide client programs with the information used in fax transactions including deleting, forwarding, creating, viewing, and printing faxes.

The RightFax RPC Module

Acts an interpreter between the RightFax client programs and the fax database on the server.

The RightFax Queue Handler

Monitors the HPFAX print queue for inbound jobs and directs them to RightFax for processing.

RightFax client programs

FaxUtil

FaxUtil is RightFax's Windows-based client application. With FaxUtil, users can view, print, and manage their faxes.

RightFax Web Access

RightFax Web Access is RightFax's browser-based client application. It includes all the functionality of FaxUtil, but can be accessed by users from any compatible Web browser.

Enterprise Fax Manager

Enterprise Fax Manager is the primary RightFax administrator application. With Enterprise Fax Manager, the RightFax administrator can manage users, groups, printers, least-cost routing, and the general functions of the fax system.

Enterprise Fax Manager Web Edition

Enterprise Fax Manager Web Edition is a browser-based RightFax management tool. It includes all the functionality of Enterprise Fax manager, but can be accessed from any compatible Web browser.

Installing the RightFax Server

For information and instructions on installing the RightFax server software, refer to the *RightFax Installation Guide*.

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Chapter 3

Configuring the RightFax Server Module

The RightFax Server module manages the network print queues assigned to faxing, controls the conversion of outgoing faxes, and works with the RightFax BoardServer module to schedule outgoing faxes and route inbound faxes. You can configure the RightFax Server module to customize global fax settings, inbound fax routing, and notifications about document processing and server status.

Although the default configuration of the RightFax Server module allows you to send and receive fax documents, you should configure it to meet the needs of your enterprise immediately after installing the RightFax server software.

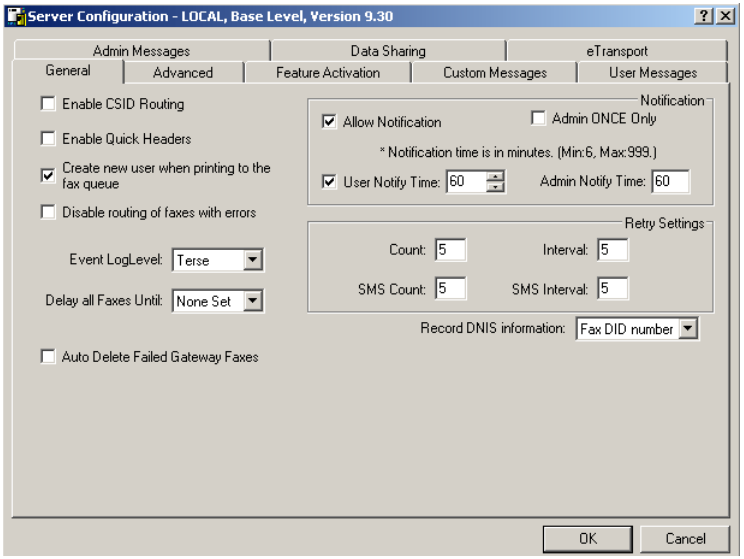
To configure the RightFax Server module

1. On the RightFax server, select **Start > Programs > Enterprise Fax Manager**. This runs Enterprise Fax Manager, the RightFax server administration tool. For more information on Enterprise Fax Manager, see Chapter 8, "Managing Fax Servers with Enterprise Fax Manager".
2. Click the name of the RightFax server to configure in the tree in the left pane of the Enterprise Fax Manager window. A list of services appears at the lower-right pane of the window.
3. In the **Service Name** list, double-click **RightFax Server Module. The Server Configuration** dialog box opens.

The rest of this chapter explains each of the options in this dialog box.

Configuring the General Tab

Figure 3.1 The Server Configuration Dialog Box General Tab



Enable CSID Routing Enables automatic inbound routing using CSID (caller subscriber identification). CSID data is information about the calling party sent to the fax board by the phone company. The CSID is different for each caller, and can be anything from a phone number to a company name.

For CSID routing to work, you must create a CSID routing table that lists RightFax routing codes and the CSIDs to be routed to them. For more information on CSID routing and creating a CSID routing table see "Configuring CSID Routing" on page 236.

Enable Quick Headers Allows a second line to be added below the TTI line (the line listing the date, time, page number, total pages, and fax ID at the very top of each fax page). After the quick header is enabled, you can customize the text in the BoardServer module (see "Quick Header Format" on page 72. If this check box is selected, quick headers will be applied to all outgoing faxes.

Note *Intel® Dialogic® fax boards do not support the Quick Header feature.*

Create New User when Printing to the Fax Queue Assigns a new RightFax user ID to network users who print to the fax queue but don't have a RightFax user ID. RightFax uses the "Default" user ID as a template when creating new users.

Disable Routing of Faxes with Errors When enabled, this option will prevent routing of incomplete faxes through an email gateway or network directory. Faxes are still available through FaxUtil and will have a status of 'Incompletely Received'.

Event LogLevel Specify the level of information logged in the Application Event Log under the service name "RightFax Server Module." You can select the following options:

- **None.** No information is saved.
- **Terse.** Records critical errors only.
- **Normal.** Records errors and major events only.
- **Verbose.** Records all significant events and is most useful for tracking and resolving problems.

Caution *If you leave this value set to "Verbose" for long periods of time, the Event Log can become full which may prevent new events from being logged.*

Delay All Faxes Until Specify the time of day after which all faxes sent by users without RightFax administrative access will be sent. To not delay faxes, select "None set."

Forced delays can also be set for groups of RightFax users. For more information on groups, see Chapter 10, "Creating Groups of Users".

Number of Fax Queues to Create Specify the number of fax print queues to create to allow multiple users to send simultaneous print-to-fax jobs with Windows Terminal Server. This is the maximum number of sessions that can simultaneously access the RightFax print queue. The number of queues you specify depends on the number of fax users supported by Terminal Server. Specify as many print queues as necessary to prevent sessions from hanging in the print queue.

If you are *not* supporting multiple sessions on a Windows Terminal Server, this option should be set to "1."

Record DNIS Information Specify where to store DNIS (dialed number identification service) information for each incoming fax. DNIS is specially encoded data that may be included with your incoming calls as a service provided by your phone company. RightFax fax records do not include a field dedicated to storing DNIS information, so you must use one of three existing fields:

- Select "Fax DID number" to save DNIS information where the originating phone number is saved.
- Select "Billing code 1" to save DNIS information in the fax Billing Code 1 field.
- Select "Billing code 2" to save DNIS information in the fax Billing Code 2 field.
- Select "Don't record" to discard DNIS information.

Note Because it overwrites any data in the location you specify, DNIS information should be saved to a field that is not used by your RightFax system.

Notification settings

Notification settings can be changed without stopping and re-starting the RightFax services.

Allow Notification Enables fax notifications to be sent to RightFax users. When this check box is selected, users receive notification messages based on the notification options specified in FaxUtil.

Admin Once Only Notifies the group administrator and alternate administrator of their users' unviewed faxes one time only.

User Notify Time Specify the length of time in minutes that the server will attempt to notify a user of an unviewed fax before it notifies the user's group administrator.

Admin Notify Time Specify the length of time in minutes that the server will notify a user's group administrator of unviewed faxes.

Note *By default, the RightFax server sends periodic notifications to users every five minutes. To re-define this interval, add a REG_DWORD value called Notify_Freq to HKEY_LOCAL_MACHINE\Software \RightFax\FaxServer and set the value data to the number of minutes you want there to be between notifications.*

Retry settings

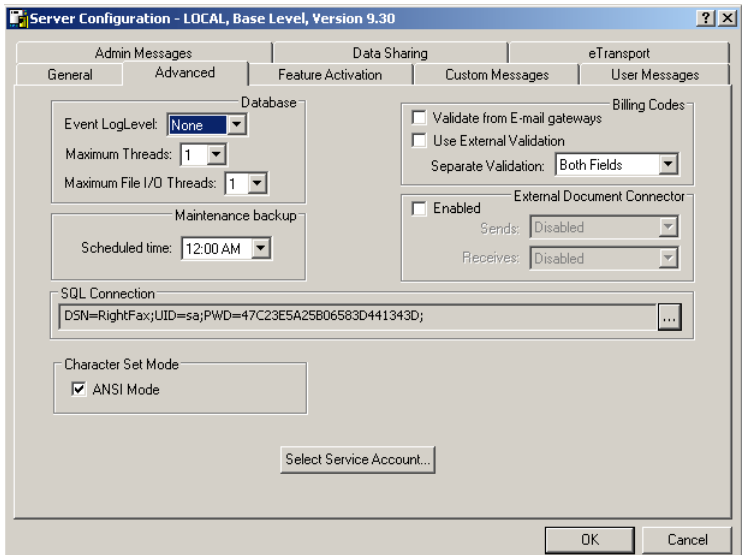
Count Specify the number of times (including the first attempt) an outgoing fax transmission will be attempted after it encounters a non-fatal error (for example, a busy signal).

Interval Specify the minimum delay in minutes before a failed fax transmission is rescheduled to send.

If a fax has not been successfully sent after the specified number of retries, it will be saved in the sender's FaxUtil mailbox with the status message: "ED:Fax Number Busy." ("ED" stands for "Error, Transmission Dropped"). The sender can force RightFax to manually retry sending the fax by clicking the fax and press CTRL+K.

Configuring the Advanced Tab

Figure 3.2 The Server Configuration Dialog Box Advanced Tab



Database settings

Event LogLevel Specify the level of information logged in the Application Event Log under the name "RightFax Database Module." You can select the following options:

- **None.** No information is saved.
- **Terse.** Records critical errors only.
- **Normal.** Records errors and major events only.
- **Verbose.** Records all significant events and is most useful for tracking and resolving problems.

Caution *If you leave this value set to "Verbose" for long periods of time, the Event Log can become full which may prevent new events from being logged.*

Maximum Threads Sets the number of database I/O threads reserved to service client requests.

The RightFax Database module can respond to database requests from multiple clients and multiple protocols at the same time. The efficiency of this process depends on the number of database I/O threads available. Because each thread uses resources (file handles, CPU time, and memory), you should never increase the number of threads to more than 10. If a database request occurs when all the threads are busy, the request will wait in line to be serviced.

Maximum File I/O Threads Sets the number of file I/O threads reserved to service client requests.

The RightFax Database module can respond to file I/O requests from multiple clients and multiple protocols at the same time. The efficiency of this process depends on the number of file I/O threads available. Because each thread uses resources (file handles, CPU time, and memory), setting this value too high will deplete the server's resources for other tasks. If a file I/O request occurs when all the threads are busy, the request will wait in line to be serviced.

Billing code settings

Billing code settings can be changed without stopping and restarting the RightFax services.

Validate from E-mail Gateways Validates all billing codes added to fax-bound e-mail messages. If a billing code cannot be validated, the fax will not send and the user will receive notification that the fax did not send due to an invalid billing code. If this check box is *not* selected, billing codes may be added to fax-bound e-mail messages but will not be validated prior to sending (in other words, any billing code will be accepted).

Use External Validation Tells RightFax to use an external program to verify billing codes on outbound faxes. This gives the user the ability to validate faxes based on several different criteria, not just billing codes. To work, a program must be written with the RightFax API to perform the verification of billing codes. For information on downloading and using the RightFax API, visit the Captaris implementation services Web site at www.captaris.com/implementation_services.

Separate Validation Customizes the way in which required billing codes are validated against the RightFax database. Selecting "Both Fields" requires both **Billing Code 1** and **Billing Code 2** fields contain valid codes. "Field 1 or Field 2" requires either of the billing code fields to contain a valid code, but not necessarily both. "Field 1 Only" requires only the **Billing Code 1** field contain a valid code. "Field 2 Only" requires only the **Billing Code 2** field contain a valid code.

External document connector

The external document connector settings are used for integrations between RightFax and third-party systems. These settings should only be set by following the instructions for integrating with a third-party system.

Click to clear the **Enabled** check box to disable and prevent the external document connector from writing large amounts of unused data to the server hard drive.

SQL Connection

This field displays the connection string that defines the RightFax server's connection to the SQL database. You can make changes to the SQL connection by clicking the **[...]** button on the right. For more information on changing and editing the connection to the RightFax database on the SQL server, see "Changing the Connection to the SQL Server" on page 301.

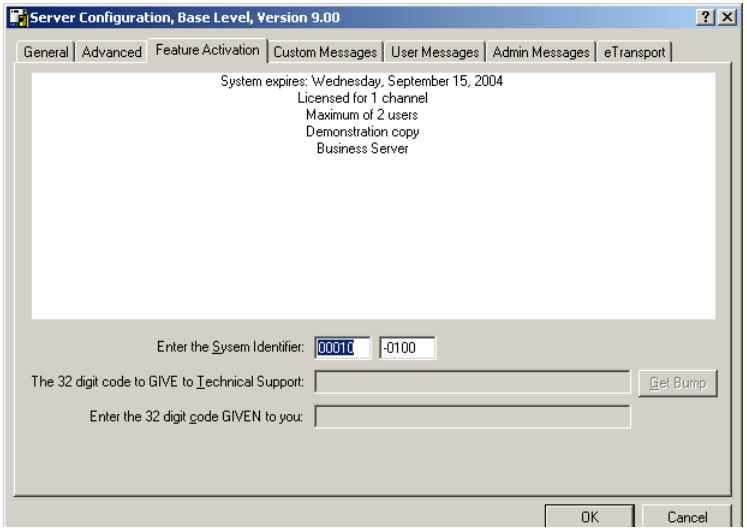
Select Service Account Click this button to select a service account for the RightFax Server and RightFax Database services. Specifying an account for these services is only required if you want to connect to the SQL database using NT authentication. Enabling NT authentication to the SQL server requires additional

configuration. For instructions on configuring network authentication to the SQL server, see "Configuring Windows Authentication to the SQL Server" on page 303.

Configuring the Feature Activation Tab

The **Feature Activation** tab is used to view and modify the number of fax channels, users, and RightFax modules that you have licensed. This tab can also be used to re-activate a copy of RightFax when the usage timer has expired.

Figure 3.3 The Server Configuration Dialog Box Feature Activation Tab

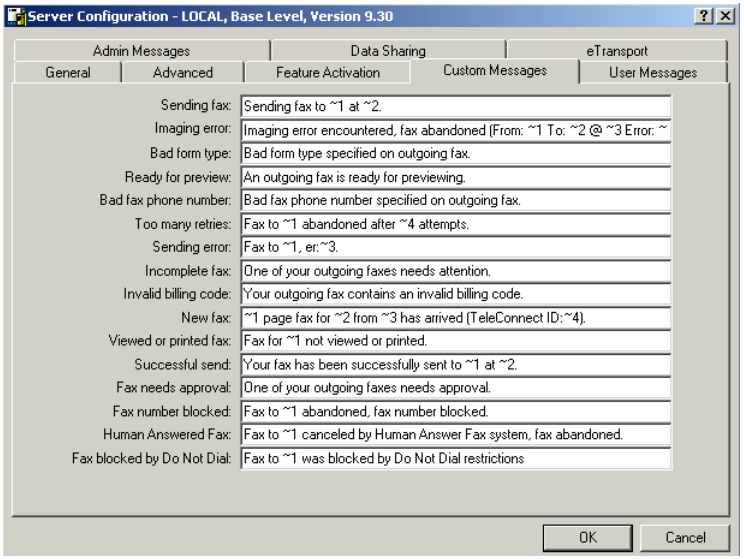


To license additional channels, users, and RightFax components, you must obtain bump codes from Captaris by calling RightFax customer support. For more information on using bump codes to upgrade your server, add additional fax channels, and add new RightFax components, refer to the *RightFax Installation Guide*.

Configuring the Custom Messages Tab

These options let you customize the text of messages that are sent for fax status notifications for users (described on page 133).

Figure 3.4 The Server Configuration Dialog Box Custom Messages Tab



Notification messages can contain a combination of text and variable data. Each message has its own available data variable options, described in the following table.

Table 3a Notification Message Options

Notification message	Variable options	When used
Bad fax phone number	~1 = User ID ~2 = Fax phone number	The fax number contains invalid characters.
Bad form type	~1 = User ID	A bad form was specified.

Table 3a Notification Message Options (Continued)

Notification message	Variable options	When used
Fax blocked by Do Not Dial	~1 = Recipient's name ~2 = Recipient's fax number ~3 = Fax error code ~4 = Sender's user ID ~5 = Billing code 1 ~6 = Billing code 2 ~7 = Recipient's company ~8 = An HTML link to the fax on the WebUtil client (if applicable)	A fax was not sent because the destination fax number was blocked by the Do Not Dial feature. (described on page 208.)
Fax needs approval	~1 = User ID ~2 = Recipient's name ~3 = Recipient's fax number	One of the sender's outgoing faxes needs approval.
Fax number blocked	~1 = Recipient's name ~2 = Recipient's fax number ~3 = Fax error code ~4 = Number of retries ~5 = Billing code 1 ~6 = Billing code 2 ~7 = URL link to the fax on the RightFax server (this option can only be used with a RightFax e-mail gateway	The recipient's fax number is blocked by the RightFax BoardServer. Fax numbers can be blocked using the following options: Dialing rules. The call blocking Windows Registry entry on the BoardServer.
Human Answered Fax	~1 = Recipient's name ~2 = Recipient's fax number ~3 = Fax error code ~4 = Number of retries ~5 = User ID	The fax was canceled (not accepted) by the recipient when the recipient responded to the RightFax voice prompt.
Imaging error	~1 = User ID ~2 = Recipient's name ~3 = Recipient's fax number ~4 = Error encountered	The server cannot generate a fax image.

Table 3a Notification Message Options (Continued)

Notification message	Variable options	When used
Incomplete fax	~1 = User ID ~2 = Unique ID of the fax	The sender did not complete all of the required fax information fields.
Invalid billing code	~1 = User ID ~2 = Billing code 1 ~3 = Billing code 2	The sender did not provide a valid billing code.
New fax	~1 = Number of pages received ~2 = User ID ~3 = Received remote ID ~4 = TeleConnect ID ~5 = Unique ID of fax ~6 = URL link to the fax on the RightFax server this option can only be used with a RightFax e-mail gateway)	A new fax was received.
Ready for preview	~1 = User ID ~2 = Recipient's name ~3 = Recipient's fax number ~4 = Billing code 1 ~5 = Billing code 2	The fax was held for preview and is now ready.
Sending error	~1 = Recipient's name ~2 = Recipient's fax number ~3 = Fax error code ~4 = Number of retries ~5 = User ID ~6 = Billing code 1 ~7 = Billing code 2 ~8 = Recipient's company	The fax could not be sent.

Table 3a Notification Message Options (Continued)

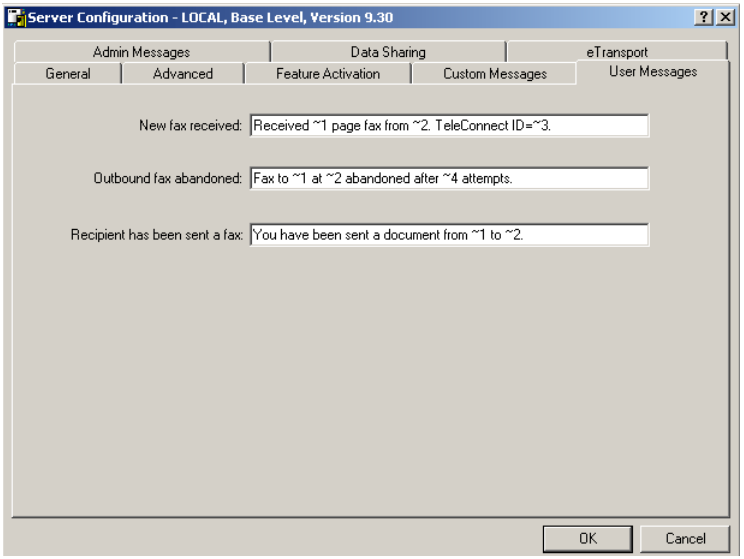
Notification message	Variable options	When used
Sending fax	~1 = Recipient's name ~2 = Recipient's fax number ~3 = User ID ~4 = Recipient's company	The fax starts to send or is still sending after a few minutes.
Successful send	~1 = Recipient's name ~2 = Recipient's fax number ~3 = Recipient's company ~4 = URL link to the fax on the RightFax server (this option can only be used with a RightFax e-mail gateway)	The fax transmission was successful.
Too many retries	~1 = Recipient's name ~2 = Recipient's fax number ~3 = Fax error code ~4 = Number of retries ~5 = User ID ~6 = Billing code 1 ~7 = Billing code 2 ~8 = Recipient's company ~9 = URL link to the fax on the RightFax server (this option can only be used with a RightFax e-mail gateway)	The fax was abandoned after the maximum number of send attempts.
Viewed or printed fax	~1 = User ID	A received fax has not been viewed or printed.

To return a notification message to the default setting, select the text, delete it, and then click **OK**. The next time you open the dialog box, the default message will be listed.

Configuring the User Messages Tab

These options let you customize the text of SMS or pager messages that are sent for fax status notifications for users (described on page 129). For more information on configuring SMS and pager notifications, see Chapter 16, "Adding SMS and Pager Services".

Figure 3.5 The Server Configuration Dialog Box User Messages Tab



For each message type, enter the custom message text you want. Some messages also let you add variables that are specific to the event you are being notified of. Each pager alert has its own set of available variables, described in the following table.

Table 3b User Message variables

Alert	Variables	When used
New fax received	~1 = Page count ~2 = CSID or ANI of sender ~3 = TeleConnect ID ~4 = CSID ~5 = ANI	Sent to a RightFax user when a new fax is received.
Outgoing fax abandoned	~1 = Recipient's name ~2 = Recipient's fax number ~3 = Short error description (last attempt) ~4 = Send attempts ~5 = Owner ID ~6 = Billing code 1 ~7 = Billing code 2 ~8 = Recipient's company ~6 = URL link to the fax on the RightFax server (requires the Gateway for Microsoft Exchange)	Sent to a RightFax user whose outbound fax has failed to send for any reason.
Recipient has been sent a fax	~1 = From name ~2 = To name	Sent to the fax recipient to notify that a fax has been sent from the RightFax server. The fax recipient notification address is entered by the RightFax client user when creating a new outbound fax.

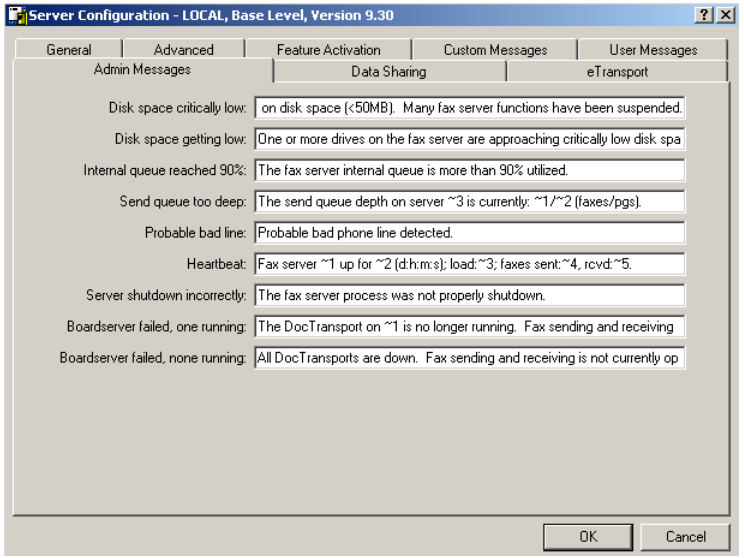
To return a notification message to the default setting, select the text, delete it, and then click **OK**. The next time you open the dialog box, the default message will be listed.

Configuring the Admin Messages Tab

These options let you customize the text of SMS or pager administrative alerts (described on page 130). For more information on configuring SMS and pager notifications in RightFax, see Chapter 16, "Adding SMS and Pager Services".

RightFax Enterprise versions 8.7 and higher include a more comprehensive Alerting and Monitoring service that lets you select from hundreds of server statistics to monitor and define the event thresholds, alert types, and alert messages to send. For more information on the RightFax Alerting and Monitoring service, see Chapter 17, "Using the Alerting and Monitoring Service".

Figure 3.6 The Server Configuration Dialog Box Admin Messages Tab



For each message type, enter the custom message text you want. Some messages also let you add variables that are specific to the event you are being notified of. Each pager alert has its own set of available variables, described in the following table.

Table 3c Admin Message Settings

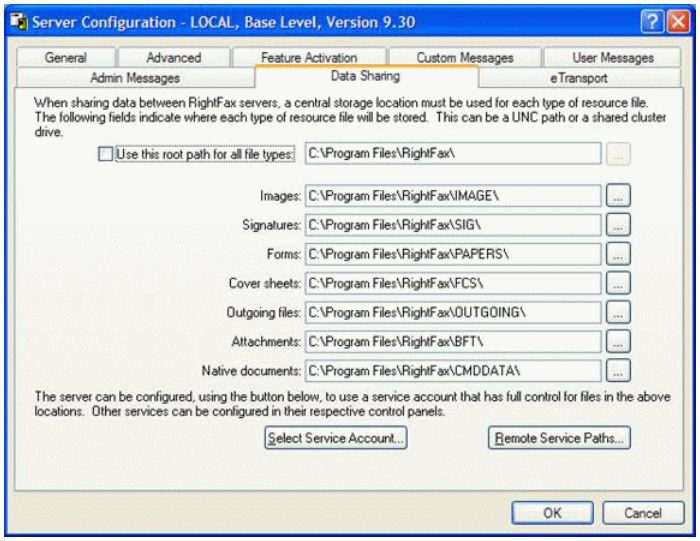
Alert	Default message	Variables
BoardServer failed, none running	All BoardServers are down. Fax sending and receiving is not currently operating.	None
BoardServer failed, one running	The BoardServer on ~1 is no longer running. Fax sending and receiving operations are functioning on other BoardServers.	~1 = BoardServer machine
Disk space critically low	One or more drives on the fax server are critically low on disk space (<50MB). Many fax server functions have been suspended.	None
Disk space getting low	One or more drives on the fax server are approaching critically low disk space (<150MB).	None
Heartbeat (periodic status)	Fax server ~1 up for ~2 (d:h:m:s); load:~3; faxes sent:~4, rcvd:~5.	~1 = Fax server name ~2 = Up time (dd:hh:mm:ss) ~3 = Fax server internal queue usage ~4 = Total faxes sent since install date ~5 = Total faxes received since install date
Internal queue reached 90%	The fax server internal queue is more than 90% utilized.	None
Probable bad line	Probable bad phone line detected.	None
Send queue too deep	The send queue depth on server ~3 is currently: ~1/~2 (faxes/pgs).	~1 = Queue depth (faxes) ~2 = Queue depth (pages) ~3 = BoardServer machine
Server shutdown incorrectly	The fax server process was not properly shut down.	~1 = Fax server name

*To return a notification message to the default setting, select the text, delete it, and then click **OK**. The next time you open the dialog box, the default message will be listed.*

Configuring the Data Sharing Tab

The capacity of RightFax servers can be multiplied by combining two or more servers that share a common SQL database. This is accomplished by installing and configuring multiple RightFax servers to share a RightFax database and corresponding resource folders. See the *RightFax Installation Guide* for installation instructions.

Figure 3.7 The Server Configuration Dialog Box Data Sharing Tab



The fields within the Data Sharing tab represent folders that must be shared among all the RightFax servers within a Data Sharing environment. Share permissions must be given to the account used to run both the Server module and DocTransport module. This account must have full control of these folders. Choosing this account can be done by click the **Select Service Account** button.

The **Remote Service Paths** button (avaiable with Hotfix 1) allows you to specify paths to the \RightFax\Image directory on Remote DocTransport servers.

For Example:

\\<*Shared Storage*>*RightFax**Image*

\\<*Shared Storage*>*D$**RightFax**Image*

\\<*ip address*>*RightFax**Image*

\\<*Shared Storage*>|*RightFax**Image*

A complete list and description of the shared data folders is provided below.

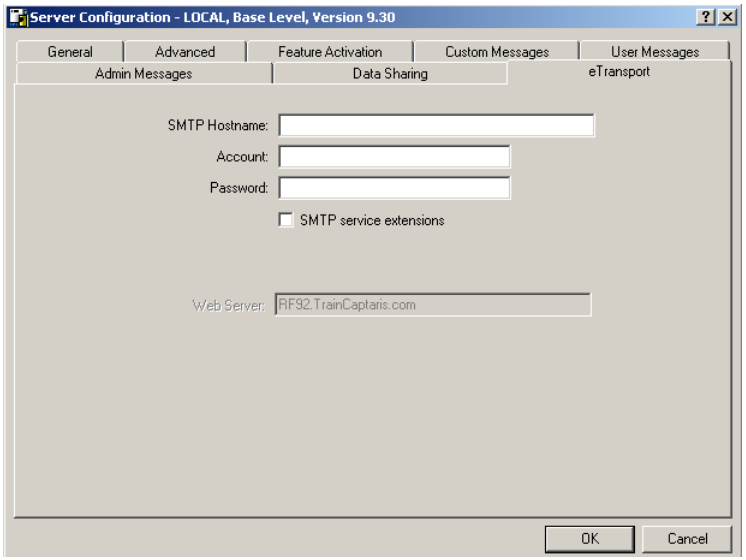
- Image (contains sent and received faxes stored as compressed graphic image files).
- SIG (contains graphic images of user signatures for placement on faxes).
- Papers (contains the names of overlay form files).
- FCS (contains fax cover sheets).
- Outgoing (contains outbound files from all submission methods that are held while being processed into fax images, such as temporary fax queue spool files).
- BFT (contains text files created by the OCR process).
- CmdData (contains transaction files for each fax sent via e-mail or via SecureDocs).

Each of these folders can be located in common disk storage, such as a storage area network (SAN), network share on file server, or network access to a local drive on one of the RightFax servers. The folders must be accessible to all the servers in the shared configuration.

Configuring the eTransport Tab

The eTransport options configure the server to send outbound fax documents to e-mail addresses in addition to fax numbers.

Figure 3.8 The Server Configuration Dialog Box eTransport Tab



SMTP Hostname Enter the name of the SMTP mail server to which outbound documents sent to e-mail addresses via the RightFax client applications will be sent. If no SMTP mail server is specified here, RightFax users using the FaxUtil client will not have the option to address fax documents to an e-mail address.

Account If the SMTP mail server requires an account name in order to gain access, enter the account name in this box.

Password Enter the password for the account name that you entered in the **Account Name** box.

SMTP service extensions If the SMTP mail server uses SMTP service extensions, select this check box. SMTP service extensions start an SMTP session by issuing the EHLO command instead of the HELO command.

Web Server Enter the Internet host name of the machine running the IIS server that the RightFax SecureDocs module is installed on. This field is required if you have installed the RightFax SecureDocs Module. For more information on this option and configuring RightFax for certified document delivery, refer to the *RightFax SecureDocs Module Guide*.

Web Site Enter the name of the folder on the IIS server that contains the certified document delivery Web site. This field is required if you have installed the SecureDocs Module. For more information on this option and configuring the RightFax server for certified document delivery, refer to the *RightFax SecureDocs Module Guide*.

Starting and Stopping the RightFax Server

The RightFax server is comprised of several services, called “modules.” These are:

- Server module
- BoardServer module
- Database module
- Queue Handler
- RPC Server module
- WorkServer module
- Integration module (optional)
- E-mail Gateway module (optional)

These services are configured and started during installation. You should only need to stop and start RightFax services during server or network maintenance.

Starting or stopping the RightFax server requires starting or stopping the separate processes. There are two ways to start or stop the processes.

Starting the Server Using the Services Program

In Windows Control Panel, start the Services program. In the list of services, you will see several RightFax modules. To start the RightFax server, click the RightFax BoardServer module and click **Start**. Next, click the RightFax Server module and click **Start**. This will start the RightFax Database module, RightFax Server module, and the RightFax WorkServer modules.

Starting the Server at a Command Prompt

In a command prompt window at any prompt, enter the following command:

net start *serviceshortname*

(for example, net start rfserver)

Note *You should never start the RightFax Database module, WorkServer modules, or E-mail Gateway modules directly. They must be started by the RightFax Server module.*

Stopping the RightFax Server

To stop the RightFax server from Windows Control Panel, click **Stop** on the RightFax Server module and the RightFax BoardServer module services.

To stop the RightFax server from a command prompt, type the following:

net stop *serviceshortname*

(for example, net stop rfboard)

Understanding the Services

The following table describes each RightFax service and tells whether the service is started automatically or manually by Windows on startup. Note that if the startup is automatic, it can be stopped and started as needed.

Table 3d RightFax Services

Service name	Short name	Startup	Description
RightFax BoardServer module	RFBOARD	Auto	The communication link between RightFax and the fax hardware.
RightFax Database module	RFDB	Manual	A multi-threaded module that handles communication between the database files (located in the RightFax\Database folder) and the fax clients.
RightFax E-mail Gateway module	RFEMAIL	Manual	The communication bridge to an optional e-mail gateway.
RightFax Paging module	RFPAGE	Auto	Monitors RightFax for pager notification events and handles communication between RightFax and the SMS or pager services.
RightFax Integration module	RFPROD	Auto	Allows applications on a mainframe to send custom faxes through the fax server.
RightFax Queue Handler	RFQUEUE	Auto	Monitors the RightFax print queue for jobs to be forwarded to the server for fax conversion.

Table 3d RightFax Services (Continued)

Service name	Short name	Startup	Description
RightFax RPC Server module	RFRPC	Auto	The communication bridge to fax clients that use IPX, SPX or TCP/IP via remote procedure calls.
RightFax Server module	RFSERVER	Auto	The bridge between all other RightFax services. Also responsible for stopping and starting the WorkServer, Database, and e-mail gateway modules.
RightFax WorkServer modules	RFWORK#	Manual	One or more modules responsible for RightFax's most processor-intensive functions such as cover sheet generation, PCL5-to-fax conversion, and optical character recognition.

Understanding the Fax Server Internal Event Queue

The Fax Server module is responsible for queueing and monitoring each of the fax server internal processes, which are collectively called the "Event Queue." The status of the Event Queue is measured as a percentage of server resources that are occupied with Fax Server module functions (such as sending and routing faxes).

The Event Queue is represented as the ratio of fax traffic volume to server resources. The higher the traffic volume, the higher this number will be. The Event Queue status is displayed in Enterprise Fax Manager when you open and select a RightFax server.

When the Event Queue of a RightFax server reaches 90 percent, the server will suspend certain functions. At 90 percent, all new outbound and inbound faxes will be held (temporarily set aside) while the server processes the existing workload. After the Event Queue falls to 75 percent, these held faxes will be scheduled for processing along with all new fax traffic.

This internal workload regulation is handled by the Fax Server module and cannot be overridden. If the fax server is consistently reaching the 90 percent capacity level, you should consider upgrading the fax server's system resources and/or fax channels.

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Chapter 4

Configuring the WorkServer Modules

Each RightFax WorkServer module performs one or more processor-intensive functions on behalf of the RightFax Server module. They regularly query the Database module for jobs to be serviced, execute those tasks, and notify the database when finished.

Product integrations with Kofax and Peoplesoft can be enabled through the RightFax WorkServers. Additional product integrations, including advanced Xerox, HP, and Sharp integrations are now available or will soon be available for download from the Captaris Web site.

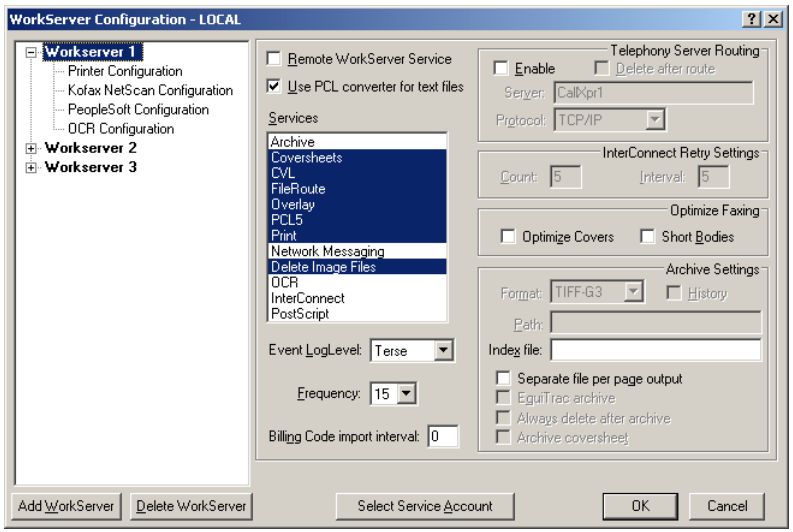
Although the default configuration of the RightFax WorkServer modules allows you to send and receive fax documents, you should configure the WorkServer modules to meet the needs of your enterprise immediately after installing the RightFax server software.

To configure the RightFax WorkServer modules

1. On the RightFax server, select **Start > Programs > Enterprise Fax Manager**. This runs Enterprise Fax Manager, the RightFax server administration tool. For more information on Enterprise Fax Manager, see Chapter 8, "Managing Fax Servers with Enterprise Fax Manager".
2. Click the name of the RightFax server to configure in the tree in the left pane of the Enterprise Fax Manager window. A list of services appears at the lower-right pane of the window.
3. In the **Service Name** list, double-click **RightFax WorkServer1 Module**. The **WorkServer Configuration** dialog box opens.

The rest of this chapter explains each of the options in this dialog box.

Figure 4.1 The WorkServer Configuration Dialog Box



Each WorkServer is configured separately. To configure a WorkServer, click the WorkServer number or one of its configuration options in the left pane.

Remote WorkServer Service Tells RightFax that this WorkServer will execute on a separate Windows machine on the network. If this check box is selected, the WorkServer service will not be started automatically by the RightFax Server service. For more information on running WorkServers remotely, see "Installing WorkServers on Remote Computers" on page 45.

Use PCL Converters for Text Files Uses the RightFax Printer Control Language (PCL) conversion engine when converting PCL files and ASCII text files to fax format. This conversion usually produces more accurate fax images of PCL and ASCII text files than the RightFax native document conversion engine. If you notice that PCL or ASCII text files are not converting to fax format as accurately as you expect, click to clear this check box to return to using the RightFax native document conversion engine.

Services Specify the tasks that the selected WorkServer will perform. Only selected services will be performed by the selected WorkServer. The following table lists each WorkServer service and its function.

Table 4a WorkServer Services

Service	Function
Archive	Archive sent faxes.
Cover sheets	Create cover sheets.
CVL	Handle faxes with multiple LIBDOC or LIBDOC2 and ADDDOC embedded codes.
Delete Image Files	Delete fax image files.
FileRoute	Route received faxes to network folders.
InterConnect	Route received faxes to another RightFax server.

Table 4a WorkServer Services (Continued)

Service	Function
Network Messaging	Network broadcast notifications. ***Important*** *If you are using Windows 2003 and wish to use Network Broadcast notifications, you must open the Control Panel and enable the Messenger service, which is disabled by default.*
OCR	Optical Character Recognition (requires the RightFax OCR Converter or OCR Router module).
Overlay	Overlay faxes with forms.
PCL5	PCL5-to-fax conversion.
PostScript	PostScript-to-fax conversion (requires the RightFax PDF or SecureDocs module).
Print	Handle requests for both on-demand and automatic fax printing.

You can assign a single task to multiple WorkServers or dedicate a WorkServer to one task only. How you configure your WorkServers depends on your organization's needs and fax server workload. In most cases, the default task does not need to be changed.

Event LogLevel Specify the level of information logged in the Application Event Log under the service name "RightFax WorkServer Module." You can select the following options:

- **None.** No information is saved.
- **Terse.** Records critical errors only.
- **Normal.** Records errors and major events only.
- **Verbose.** Records all significant events and is most useful for tracking and resolving problems.

Caution *If you leave this value set to "Verbose" for long periods of time, the Event Log can become full which may prevent new events from being logged.*

Frequency Specify how often, in seconds, the WorkServer will query the Database module for new requests. If you only have one WorkServer module, 5 to 10 seconds is an appropriate setting. However, if you run multiple WorkServers, a lower frequency (for example, 15) will prevent requests from overloading the Database module. This prevents the WorkServers from keeping the Database module so busy that clients cannot be serviced in a timely manner.

Billing Code Import Interval The interval in minutes that the WorkServer will check for a new billing code delta file (used to query billing codes from external billing code source). At each interval, the WorkServer checks for a file called Codechg.csv in its own (the WorkServer) folder. If the file exists, the WorkServer imports the additions, changes, and deletions specified in the file. For more information on using billing codes from an external source, "Importing Billing Codes"on page 160.

Telephony server routing

Enable Allows the RightFax system to integrate with your enterprise telephony server system. For information on custom integrations with your fax server, refer to your telephony server documentation.

Caution *Any WorkServer that has telephony server routing enabled will be dedicated to telephony routing only thus all other WorkServer activities will be ignored. For this reason, you must have only one Workserver configured for telephony routing and at least one additional WorkServer that is not assigned to perform telephony routing.*

Server Specify the name of the telephony server on your network to integrate with the RightFax server.

Protocol Select the network protocol to use for communicating between the RightFax and telephony servers.

InterConnect retry settings

RightFax InterConnect allows faxes received on one RightFax Enterprise server to be automatically routed to a fax mailbox of the same name on a different RightFax Enterprise server on the same network. With InterConnect, interoffice faxes can be sent via the network that links the RightFax Enterprise servers in each office, rather than via the phone lines, saving time and potential long distance phone charges. For more information on configuring InterConnect routing see "RightFax InterConnect"on page 209.

These settings will only be available if you have selected "InterConnect" under **Services** (described in "Services"on page 36.)

Count Specify the number of times the originating fax server will attempt to forward the fax to the destination fax server when it encounters a non-fatal error (e.g., server temporarily down).

Interval Specify the time delay, in minutes, between retries.

Optimize faxing

Short Covers Makes fax cover sheets only as long as the cover sheet text requires (ignoring any blank space at the end of the cover sheet), potentially reducing transmission times. This may produce a partial page on some destination fax machines.

If this check box is not selected, cover sheets will be padded to fill an entire page.

Short Bodies Makes each page in the body of the fax only as long as the text requires (ignoring any blank space at the end of pages), potentially reducing transmission times. This may produce partial pages on some destination fax machines.

If this check box is not selected, each fax page will be padded to fill an entire page.

Archive settings

RightFax can save a copy of each user's outbound faxes. This fax "archive" feature is useful for tracking and storing all of your organization's outbound faxes or for integrating RightFax with image tracking software systems.

Archived faxes are saved in a network folder that you specify and can include an optional fax history file and archive log entry. Archived faxes are saved using unique file names generated by RightFax with a file extension corresponding to the file format used for the archive.

Each fax is archived individually upon completion, whether or not the fax was successfully sent. A fax will be archived one time for each recipient, so one fax sent to a group of ten recipients will be archived as ten separate faxes.

Each RightFax user is individually configured for fax archiving. To enable fax archiving for a user, select the **Archive Sent Faxes** check box in the **User Permissions** tab of the **User Edit** dialog box in Enterprise Fax Manager (see "Archive Sent Faxes"on page 125.) Also, in order to archive sent faxes, at least one of the WorkServers must have "Archive" selected under **Services** (see "Services"on page 36.) For each WorkServer that will manage archiving, you must also complete the archive settings here.

Format Specify the file format used when archiving faxes. The file format you should choose depends on how you plan to use the archived faxes. By default, files are archived in a multi-page TIFF-G3 format with Group III data compression.

History Includes each fax's transmission history with the archived fax image. The fax history is a separate ASCII file saved in the archive folder using the same file name as the fax but with the extension.trx.

Path Specify the folder, in UNC format, where archived faxes will be stored. The WorkServer will create the specified path if it doesn't already exist.

The path can be customized using special variables that are replaced in the path name each time a fax is archived. Using variables in the path name lets you archive faxes to separate folders based on the sender, the date, the fax destination, or any combination of these. The following table lists each of the archive path variables and their definitions.

Table 4b Archive Path Macros

Variable	Definition
~1	Date (YYYYMMDD)
~2	Day of the week (SUN-SAT)
~3	Month (JAN-DEC)
~4	Year (YYYY)
~5	Day of the month (DD)
~6	Month as decimal (01–12)
~7	User ID (up to 11 characters in 8.3 FAT format)
~8	Week as decimal (00–51)
~9	Billing Code #1 (up to 11 characters in 8.3 FAT format)
~0	Billing Code #2 (up to 11 characters in 8.3 FAT format)
~A	Remote ID (left to right, up to 11 characters in 8.3 FAT format)
~B	Remote ID (right to left, up to 11 characters in 8.3 FAT format)
~C	Group ID (up to 11 characters in 8.3 FAT format)

Example For example, this path:
\\Faxserver\Archive\~C\~7\~3~4 might look like this after variable replacement:
\\Faxserver\Archive\DEVELOPM.ENT\JDOE\JAN1999

In this example, all of the faxes sent by user ID "JDoe" in the "Development" group will be stored in a unique archive folder, organized into separate subfolders each month.

The total path length, after variable replacement, cannot exceed 128 characters. If you do not enter a path, no faxes will be archived.

Caution *Because "~1" is interpreted as a macro in the path name, you cannot use short path names (i.e. \Progra~1\RightFax\Archive) in this field. You must use enter the full path names.*

Index file Specify the UNC path and file name of the file where all archive events will be logged. The index is a comma-delimited ASCII file. Each index entry appears on a separate line and includes 24 data fields. The following table lists all of the fields for each index entry in the order the fields appear.

Table 4c Index File Fields

Field	Type	Length	Definition
Owner_ID	String	21	User ID of the fax "owner"
To_FaxNum	String	31	Recipient's fax number
To_ContactNum	String	31	Recipient's phone number
To_Name	String	59	Recipient's name
To_Company	String	59	Recipient's company name
To_CityState	String	59	Recipient's city and state
From_Name	String	59	Sender's name
From_PhoneNum	String	31	Sender's phone number
Billinfo1	String	15	Billing code 1

Table 4c Index File Fields (Continued)

Field	Type	Length	Definition
Billinfo2	String	15	Billing code 2
FaxDIDNum	String	31	DID routing number
OperatorNum	String	31	Organization's general phone number
GeneralFaxNum	String	31	Organization's general fax number
RemoteID	String	21	Received remote ID
Send_Time	Integer	N/A	Total time on fax board, in seconds
Fax_Status	Integer	N/A	A number corresponding to the fax's last reported status.
Fax_Termstat	Integer	N/A	A number corresponding to the fax's last reported transmission status.
NumPages	Integer	N/A	Includes optional cover sheet, if any
FineMode	Integer	N/A	0=normal, 1=fine
Received	Integer	N/A	0=sent, 1=received
FaxDate	String	10	Date the fax record was last modified (mm/dd/yyyy)
FaxTime	String	5	Time fax record last modified (hh:mm)
UniqueID	String	15	Unique ID for the fax assigned by RightFax server
Archived_Name	String	256	File name used for the image archive
NewLine	N/A	N/A	(CR–LF combination record separator)

Because this log file is dynamic, if you plan to use a third-party application to access the log information you must make sure the file is opened in shared mode. Also, no third-party application should be granted write access, and should not be configured so as to keep the log file open for more than 10 to 20 seconds. The optimal method for third-party access is to make a copy of the log file, and then access data from the copy.

If no log file name is specified, RightFax will not log archive events.

Separate file per page output Archives each page of each fax as a separate TIFF file (i.e., a five-page fax will be archived as five separate files). This check box will only be available if you have selected "TIFF-G3" or "TIFF-G4" in the **Format** box (see "Format"on page 38.)

EquiTrac Archive Logs all successfully sent faxes to a file called RightFax.txt in the WorkServer folder. The EquiTrac Archive log is a comma-delimited ASCII file. Each log entry appears on a separate line and includes nine data fields. The following table lists all of the fields for each log entry in the order the fields appear.

Table 4d EquiTrac Archive Log Fields

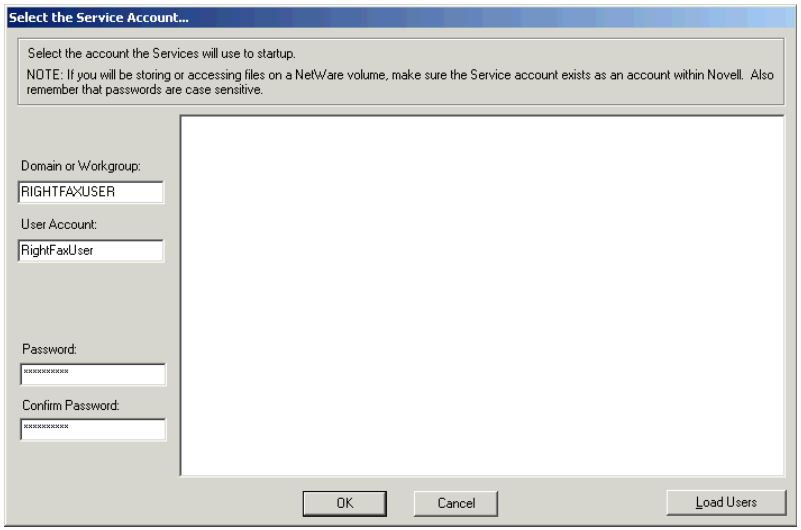
Field	Maximum length or format
RightFax user ID	21 characters
Phone number dialed	31 characters
BillInfo1	15 characters
BillInfo2	15 characters
Fax transmission duration	hh:mm:ss
Number of pages in fax	###
Fax error code	Always 32, indicating success
Fax date	mm/dd/yy
Fax time	hh:mm

Always Delete After Archive Removes all archived faxes from the user's FaxUtil mailbox.

Selecting a Service Account

All RightFax WorkServers log on to the network as services using a Windows user account that you specify. This user account must have access to all the network resources required by the tasks (services) managed by your WorkServer modules. This account is initially selected during the RightFax installation. To change the WorkServer module service account, click **Select Service Account**. The **Select Service Account** dialog box opens.

Figure 4.2 The Select the Service Account Dialog Box



Enter the new service account in the **Domain or Workgroup** and **User Account** boxes. You can also click **Load Users** to scan for and list *all* user accounts on the network, and then click a user account in the list to automatically fill in the **Domain or Workgroup**

and **User Account** boxes. Enter the case-sensitive password for the selected user account in both the **Password** and **Confirm Password** boxes. Click **OK** to apply the new service account.

Warning *If you manually type a name in the Domain or Workgroup field that is longer than 15 characters, you may encounter errors in services performed by the WorkServer. To avoid this, you should select the user by clicking the Load Users button when the desired user account resides on a domain whose name is longer than 15 characters.*

Note *If you will be storing or accessing files on a NetWare volume, you must make sure the WorkServers' service accounts also exist as accounts within Novell.*

Adding and Deleting WorkServers

By default, three WorkServer modules are installed on the RightFax server. Two WorkServer modules are devoted to the most frequent tasks, and one is dedicated to network messaging and deleting image files only. This default setup is optimal for most RightFax configurations. However, changing the default configuration may be necessary, depending on your fax server usage. For example, if the server is used primarily for broadcast faxing, WorkServer #3 can be configured to perform the greater than average load of PCL5 conversions, instead of the unnecessary network notification function.

Here are some additional reasons for adding more WorkServers:

- If running OCR (Optical Character Recognition), either for routing or conversion purposes, you may want to dedicate a separate WorkServer to performing this processor intensive task.
- If the majority of your conversions are PostScript, you may want to dedicate a separate WorkServer to this task.
- If you do a great deal of fax printing, you may want to dedicate a separate WorkServer to performing this task as well.

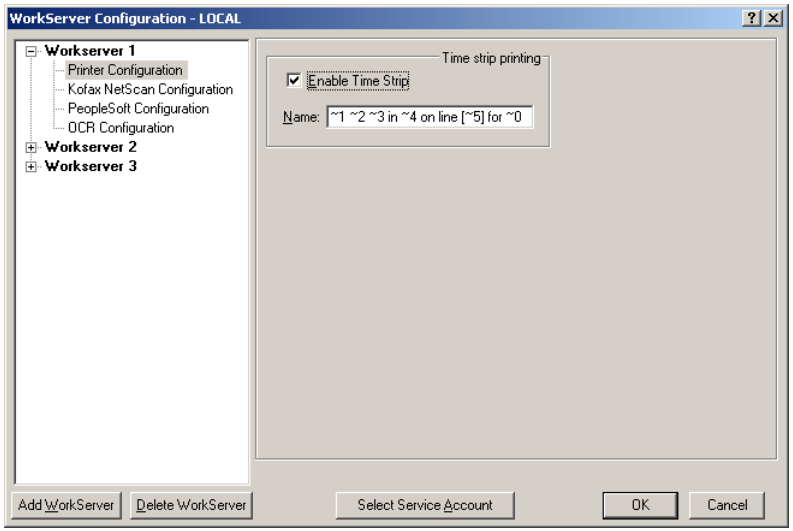
To add a new WorkServer, click **Add WorkServer**. To delete an existing WorkServer, click the WorkServer to remove and click **Delete WorkServer**. When you delete a WorkServer, the other WorkServers will arrange themselves so they remain sequential. For example, if you delete WorkServer #1, WorkServer #2 will move to the WorkServer #1 position and WorkServer #3 will move to the WorkServer #2 position.

Printing a Time Strip on Faxes

The WorkServer module can print a time strip at the top of every fax that is printed to a network printer. The time strip can include the time of arrival of received faxes, elapsed transmission time, time printed, and the fax image file name.

Click **Printer Configuration** under the selected WorkServer.

Figure 4.3 The WorkServer Printer Configuration Dialog Box



Enable Time Strip Enables printing a time strip at the top of every fax that is printed to a network printer.

Note *Although the time strip is printed as black text by default, RightFax can print the time strip on the first page of each fax as white text on a black background. This can be useful for manually sorting through printed faxes. To enable the reversed time strip feature, edit the Windows registry. Add a REG_DWORD value called PrintTimeReverse to HKEY_LOCAL_MACHINE\Software\RightFax\Workserver and set the value data to 1.*

Name Specify what information to print in the Time Strip. The Time Strip can contain any combination of text and variables. The following table lists each of the variable options that can be used in this box.

Table 4e Time Strip Macros

Macro	Definition
~1	The word "Sent" or "Received"
~2	Last transmission/receive date (MM/DD/YYYY)
~3	Last transmission/receive time (HH:MM)
~4	Last connection duration
~5	Last channel used
~6	WorkServer number
~7	Image file name
~8	Date and time printed (MM/DD/YYYY HH:MM)
~9	Unique ID
~0	RightFax user ID
~A	Remote ID
~B	Name of the fax recipient
~C	Fax number of the fax recipient
~D	Company name of the fax recipient

Table 4e Time Strip Macros (Continued)

Macro	Definition
~E	Last transmission/receive date (YYYY/MM/DD)
~F	Date and time printed (YYYY/MM/DD HH:MM)

Example The entry **Fax ~1: ~2 ~3** might produce this text at the top of a printed fax: **Fax received: 01/05/99 10:42**.

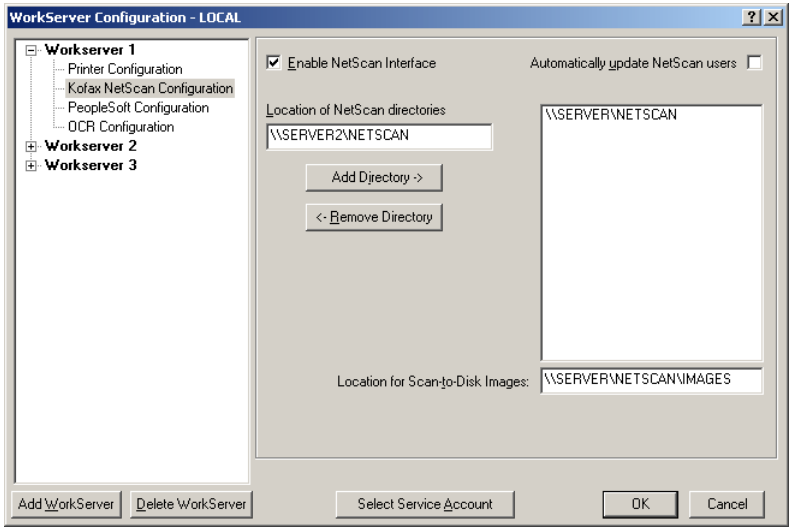
Configuring Kofax NetScan

RightFax can be configured to work in conjunction with the Kofax NetScan network integration tool for scanners. Using the Kofax NetScan, you can scan documents directly into the FaxUtil mailbox of any RightFax user on your network. This makes it convenient to fax printed pages when no electronic version is available.

Scanned images appear in the selected FaxUtil mailbox with the message "Info not complete." Images can then be faxed by double-clicking the image in FaxUtil and completing the required boxes in the **Fax Information** dialog box. For information on FaxUtil, refer to the FaxUtil online help. For information on using the **Fax Information** dialog box see "Using the Fax Information Dialog Box" on page 248.

In order to integrate RightFax with the Kofax NetScan, at least one WorkServer must have the Kofax integration enabled. Each WorkServer is separately configured for Kofax NetScan integration. Click Kofax NetScan Configuration under the selected WorkServer.

Figure 4.4 The WorkServer Kofax NetScan Configuration Dialog Box



Enable NetScan Interface Enables RightFax integration with a Kofax NetScan. Communication and integration with the Kofax NetScan will only be handled by the WorkServers with this check box selected.

Automatically Update NetScan Users Updates NetScan users with the latest list of RightFax users every six hours or every time the RightFax Server module is restarted. If this check box is not selected, the NetScan can only be updated by selecting **Synchronize External Systems** from the **Utility** menu in Enterprise Fax Manager (see "Synchronizing the RightFax Server with External Systems" on page 118).

Location of NetScan Directories Specify the UNC path to the folders that RightFax will monitor for new NetScan images. To add a directory, type the UNC path in the **Location of NetScan Directories** box and click **Add Directory**. To remove a directory, click the directory and click **Remove Directory**.

Location for Scan-to-Disk Images Specify the UNC path to the folder where images that are scanned to disk from the Kofax NetScan will be saved.

For more information about configuring the Kofax NetScan for RightFax integration, refer to your NetScan documentation.

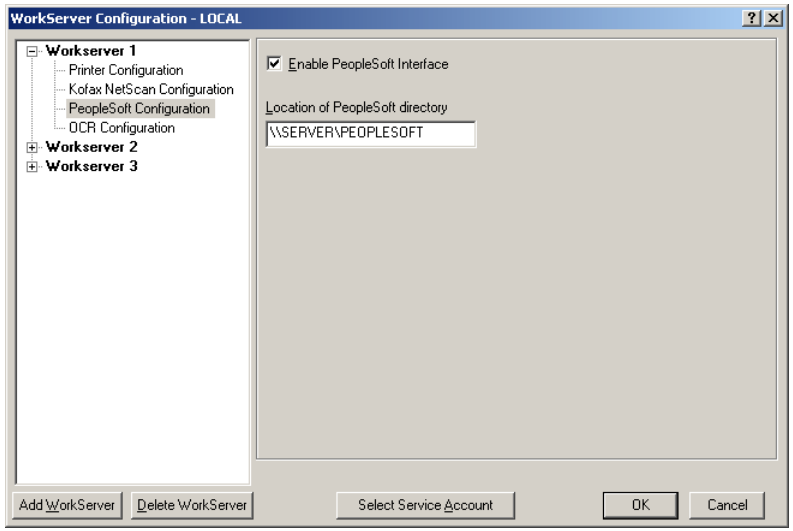
Configuring PeopleSoft

PeopleSoft is an application for enterprise resource planning that lets companies manage multiple resources from one integrated platform. To use PeopleSoft with the RightFax server, you must purchase a separate license. PeopleSoft must be used with the RightFax Enterprise or Business Integration Module.

RightFax queries PeopleSoft for outgoing faxes, overriding the PeopleSoft built-in ObjectFax server. This lets you combine the benefits of RightFax least-cost routing and load balancing features with your PeopleSoft platform.

To configure RightFax to work with PeopleSoft, at least one WorkServer must have the PeopleSoft integration enabled. Each WorkServer is separately configured for PeopleSoft integration. Click **PeopleSoft Configuration** under the selected WorkServer.

Figure 4.5 The WorkServer PeopleSoft Configuration Dialog Box



Enable PeopleSoft Interface Enables RightFax integration with PeopleSoft. Communication and integration with the PeopleSoft system will be handled by the WorkServers with this check box selected.

Location of PeopleSoft directory Specify the UNC path to the folder where PeopleSoft stores its outgoing fax jobs. The service account for this WorkServer (see "Selecting a Service Account" on page 40) must have read and write access to this folder.

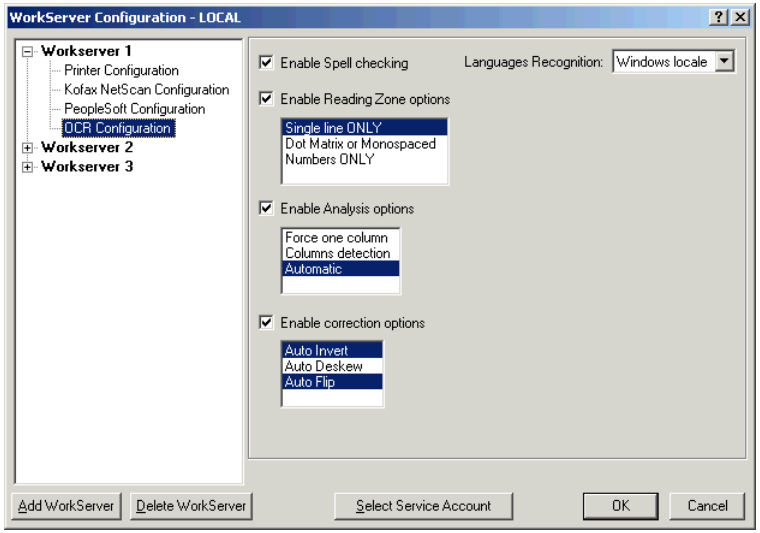
Configuring OCR Document Conversion

RightFax gives you several options for specifying the layout of documents converted to text using optical character recognition (OCR). As a general rule, the more accurately you specify the layout of a document to OCR, the more accurate the conversion to text will be. Conversely, any documents that do not conform to the specifics you enter may not convert as accurately as if no specifics were given.

If you frequently receive and OCR only one type of document, it may be a good idea to specify the document layout here. However, if you receive and OCR many varied types of documents, it may be a good idea to disable these options. Some experimentation may be necessary to determine the combination of options that provides your organization with the best OCR conversions.

WorkServers that have the OCR service selected (see "Services" on page 36) can have additional OCR options configured. Click **OCR Configuration** under the selected WorkServer.

Figure 4.6 The WorkServer OCR Configuration Dialog Box



Enable Spell Checking Compares converted text to a built-in spell checker in order to improve accuracy. Words that are not found by the spell checker are converted to the word that most closely matches.

Languages Recognition Specify the language of incoming faxes. Select “Windows Locale” to use the default Windows language setting.

Caution *Due to the low resolution inherent to fax images, languages that contain small accent marks or multiple, similar accent marks may fail to convert properly. For these languages, Captaris recommends increasing the font size to improve the accuracy of conversion.*

Enable Reading Zone Options Specify how the fax images to convert are expected to look. After this option is enabled, you can select any or all of the listed options. Select “Single Line Only” if the expected fax image will consist of one line of text only. Select “Dot Matrix or Monospaced” if the expected fax image will consist of dot matrix characters and/or contain monospaced lines. Select “Numbers Only” if the expected fax image will contain numbers but no text.

Enable Analysis Options Specify the column layout of the fax images to convert. After this option is enabled, you can select any or all of the listed options. Select “Force 1 Column” if the expected fax image will consist of one column of text only. Select “Columns Detection” if the expected fax image will consist of text formatted into multiple columns. Select “Automatic” if the expected fax image will contain one or more columns of text.

Enable Correction Options Detects and corrects text orientation problems prior to converting the image to text. After this option is enabled, you can select any or all of the listed options. Select “Auto Invert” if some or all of the expected fax image will be displayed as light characters on a dark background. Select “Auto Deskew” to detect and correct when the fax image has been pulled skewed through a fax machine. Select “Auto Flip” to detect and correct when the fax image has been transmitted either sideways or upside down.

Installing WorkServers on Remote Computers

The RightFax server lets you install and operate remote WorkServers (WorkServers running on computers other than the RightFax server). This lets you transfer selected processor-intensive functions to other machines, freeing up resources on your RightFax server. Running remote WorkServers should only be considered for systems with 24 or more fax channels in high volume fax broadcast situations. Three or four properly configured WorkServers installed locally on the RightFax server are sufficient to handle the fax load in most other installations.

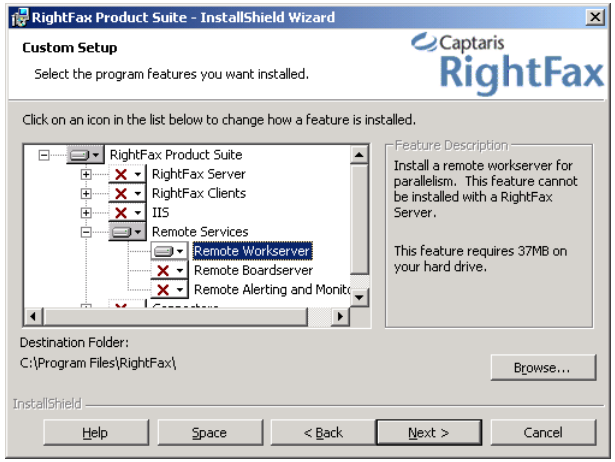
Warning *After you install a remote WorkServer, you cannot delete any WorkServers from your RightFax configuration. This will disrupt the order of the services and the remaining WorkServers may fail to function as expected.*

To install a RightFax WorkServer on a remote computer

1. Make sure that the remote WorkServer you are installing and the RightFax server it will be pointing to are the same version. You cannot configure a remote WorkServer to work with a lower version RightFax server.
2. If you have not already done so, create a share of the RightFax folder on the fax server computer named “RightFax”. You must add at least one NT account that has both read and write access to this share.
3. Log on to the remote computer using an NT account with read and write access to the shared RightFax folder on the fax server.
4. Insert the RightFax server CD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the CD and run AutoRun.exe.
5. In the menu of install options, select the option to install the RightFax product suite. The RightFax install wizard opens.

6. Click **Next** at the opening screen to view the RightFax license agreement. You must accept the license agreement in order to continue the installation. Click **Next**.
7. Enter your name, organization name, and your product serial number when prompted. Your product serial number is printed on a label attached to the product box. Click **Next**.
8. On the **Setup Type** screen, select **Custom** and then click **Next**.
9. Expand the tree of install components. Remove the install option for all components except **Remote Workserver** under **Remote Services**. Click **Next**.

Figure 4.7 The Remote WorkServer install option



10. When prompted for a RightFax server name, enter the name of the server that you want to connect to. Click **Next**.
11. Click **Install**. When the installation is complete, the new WorkServer will be displayed in the list of WorkServers in the RightFax WorkServer configuration application on the RightFax server (described earlier in this chapter).

Changing the remote WorkServer's service account

When it is installed, the remote WorkServer uses the same service account information as the WorkServers on the RightFax server. If this is a local administrative account on the RightFax server, the remote WorkServer service may not be able to log on to the network. If so, you must change the service account used by the remote WorkServer so that it has administrative permissions to the computer on which it is installed. To change the WorkServer's service account on the remote computer, open Windows Control Panel and select **Administrative Tools > Services**. The WorkServer is listed in the services as **RightFax WorkServer Module**. Double-click the service name to open its configuration dialog. You can specify a new service account name on the **Log On** tab. You must repeat this procedure locally at the WorkServer before the changes will take effect.

■ ■ ■

Chapter 5

Configuring the DocTransport and BoardServer Modules

The RightFax DocTransport module lets you configure the methods by which RightFax will be able to transmit documents. This module lets you configure fax boards for conventional fax transmission, as well as set up RightFax for SMS messaging, Fax-over-IP and Eicon fax boards.

The RightFax BoardServer module acts as an interpreter between the some fax board drivers and the RightFax Server module for conventional fax transmission. It handles requests to schedule outgoing faxes for transmission and informs the Server module when a new fax has been received and needs to be processed. The BoardServer module can only be configured from within the DocTransport module which oversees its functions. The DocTransport module is also responsible for starting and stopping the BoardServer module.

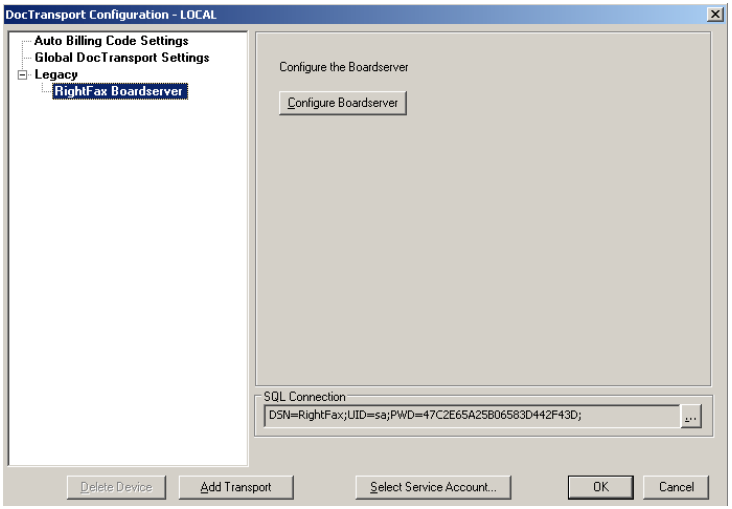
The DocTransport module must be properly configured to allow the RightFax server to send and receive documents. RightFax supports a maximum of 120 fax channels per DocTransport service which includes all channels in the BoardServer module as well.

Caution *Manually stopping or starting the BoardServer module will cease the scheduling of all faxes. To stop the BoardServer module you must stop the DocTransport module to initiate a proper BoardServer shutdown. To restart the BoardServer, simply start DocTransport as it is designed to automatically start the BoardServer module. This also applies when running the BoardServer in debug mode.*

Configuring the RightFax DocTransport Module

1. On the RightFax server, select **Start > Programs > Enterprise Fax Manager**.
2. In the Enterprise Fax Manager application, click the name of the RightFax server to configure in the tree in the left pane. A list of services appears at the lower-right pane of the window.
3. In the **Service Name** list, double-click **RightFax DocTransport Module**. The **DocTransport Configuration** dialog box opens.

Figure 5.1 The *DocTransport Configuration* dialog box



Adding transport methods

By default, the DocTransport module includes the RightFax BoardServer module set up as a transport method. With the BoardServer module, you can configure most supported fax boards for conventional fax transmission and receipt. You can also add the following transport methods.

Table 5a Additional transport methods

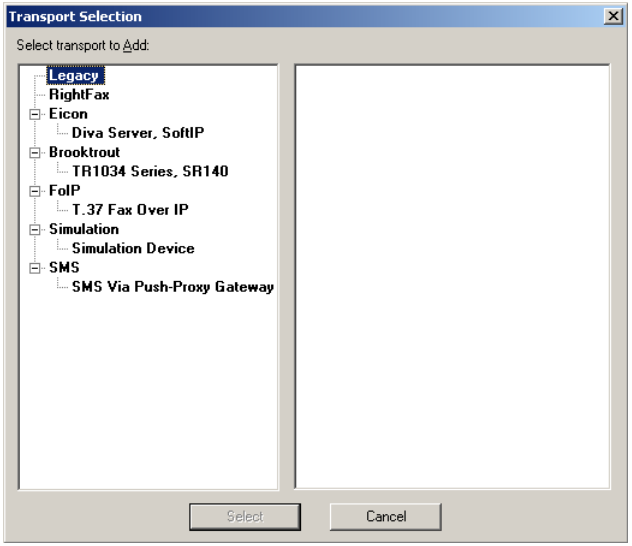
Transport method	Description
Eicon Diva Server	Required if you will be installing any of the following Eicon fax boards: • Eicon Diva Server BRI-2M • Eicon Diva Server 4BRI-8M • Eicon Diva Server PRI/E1/T1 • Eicon Diva Server PRI/E1-30
Brooktrout TR1034 Series, SR140	Required if you will be installing any Brooktrout TR1034-series fax boards or the Brooktrout SR140 software platform of Fax over IP.
T.37 Fax over IP	Required if you will be creating administrative dialing rules that route faxes to T.37-compatible fax machines. ***Note*** *You must configure the gateway if you plan to send faxes directly to IP addresses and wish to collect route codes.*
Simulation Device	Allows simulated fax sending. Outgoing faxes will appear to send but will not. Simulation mode can be used with no fax boards installed.
SMS Via Push Proxy Gateway	Required if you install and plan to use the Push Proxy Gateway. The *RightFax Push Proxy Gateway Guide* provides configuration information for this transport type.

If your RightFax configuration does not include any of these transport methods, you will need to configure only the RightFax BoardServer module to properly match your fax board configuration. To open the BoardServer configuration program, select **RightFax BoardServer** under **Legacy** on the pane on the left side of the **DocTransport Configuration** dialog box, and then click the **Configure Boardserver** button. For information on configuring the RightFax BoardServer module, see "Configuring the RightFax BoardServer" on page 67.

To add one or more of the optional transport methods to the DocTransport module

1. Click the **Add Transport** button. This opens the **Transport Selection** dialog box.

Figure 5.2 The *Transport Selection* dialog box



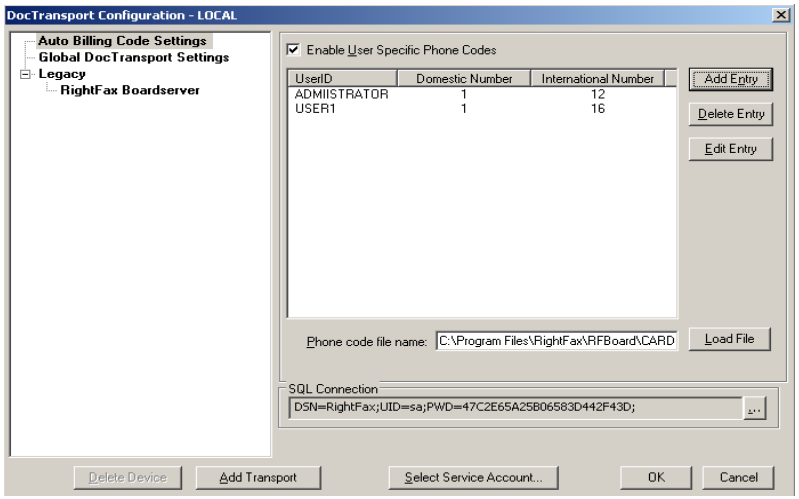
2. Expand the tree in the left pane and select the transport method to add.

3. If you select either **Eicon Diva Server** or **Brooktrout TR1034 Series, SR140**, you must select a specific fax board in the right pane.
4. Click **Select** to add the new transport method.
5. Repeat these steps for each optional transport method you want to add.
6. After you have added all of the transport methods you will be using, each must be properly configured for your system. The rest of this chapter describes how to configure each of the transport options in the DocTransport module.

Configuring automated billing codes

This feature automatically applies billing codes to outbound faxes based on the user ID of the sender. To configure automatic billing codes, click **Auto Billing Code Settings** in the left pane.

Figure 5.3 DocTransport Configuration *Auto Billing Code Settings*.



Enable User Specific Phone Codes Enables the Automatic Billing Codes feature.

To assign domestic and international phone codes to specific RightFax users, you must create a list of RightFax users and their phone codes.

Click **Add Entry** to add a new entry to the list. This opens a dialog box asking you to enter a RightFax user ID and that user's domestic and international long distance phone codes. When you click **OK** to close the dialog box, the new entry is immediately displayed in the **DocTransport Configuration** dialog box.

To edit an entry, click the entry in the list and click **Edit Entry**. To delete an entry, click the entry and click **Delete Entry**.

To load a list of RightFax user IDs and phone codes from a file, type the path and file name in the **Phone Codes File Name** box and click **Load File**. The file name you specify must be a tab-delimited ASCII file. Each entry in this file must include the RightFax user ID, domestic phone code, and international phone code. Individual entries are separated by a carriage return

Example

JDoe	1345	0345
JSmith	1678	0678
BJones	1111	0111

After you load the file, any additions, deletions, and editing changes you make in the **DocTransport Configuration** dialog box will be saved.

To distinguish international and domestic long distance calls

After you have created a list of RightFax users and their phone codes, you must specify dialing rules that tell RightFax when to dial those codes.

When creating dialing rules, the character "F" added to the dial string will be replaced with the user's domestic phone code. The character "G" added to the dial string will be replaced with the user's international phone code.

Example For example, for international calls, you might create a dialing rule like this:

Pattern	Append
011+	wGii

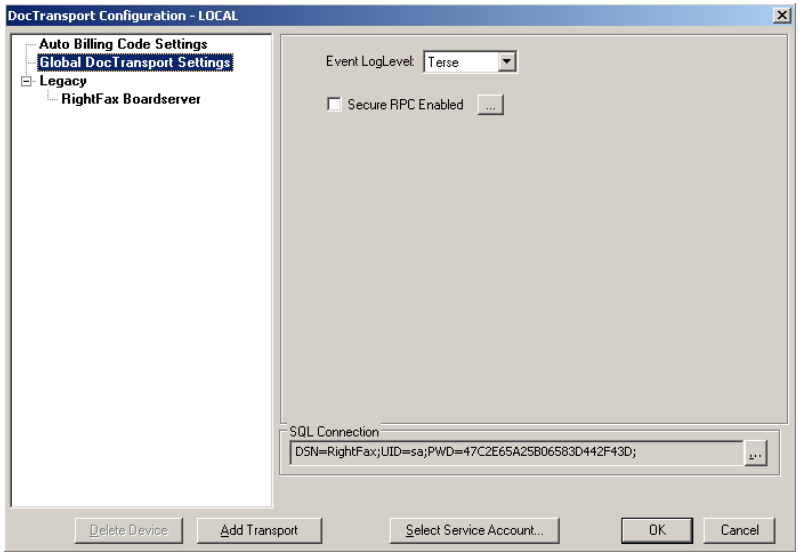
This tells RightFax that if the first three digits of an outgoing fax number are "011" (the international dialing prefix) then wait for a dial tone (w), look up the user's international billing code and dial it (G), and then wait 10 seconds before dialing the number (ii).

For more information on creating dialing rules in RightFax, see "Adding dialing rules" on page 198.

Configuring Global DocTransport Settings

Global board settings in the DocTransport module are global settings that apply only to the transport methods enabled in DocTransport. RightFax will use these settings regardless of the transport method, fax board, or channel in use. To configure Global DocTransport Settings, select **Global DocTransport Settings** in the left pane. The rest of this section describes the options on this screen.

Figure 5.4 The DocTransport *Global DocTransport Settings* configuration



Event LogLevel Specify the level of information logged in the Application Event Log under the service name "RightFax DocTransport Module." You can select the following options:

- **None.** No information is saved.
- **Terse.** Records critical errors only.
- **Normal.** Records errors and major events only.
- **Verbose.** Records all significant events and is most useful for tracking and resolving problems.

Caution *If you leave this value set to "Verbose" for long periods of time, the Event Log can become full which may prevent new events from being logged.*

Secure RPC Enabled Encrypts the data exchanged between multiple RightFax DocTransports (e.g., Remote BoardServers) or between a RightFax DocTransport module and the FaxStat

program. Any DocTransport service on any other RightFax server communicating with this server must be started using a valid account and password rather than a local system account.

If you select this option, you must specify a user account that the DocTransport service can use for authentication to and from other DocTransport modules on the network. To specify a user account, click the **[...]** button to the right of this option and enter a login name and password.The quick header line can be customized using special macros that are replaced in the quick header of each fax.

Configuring Brooktrout 1034 and Trufax Fax Boards

Brooktrout 1034-series and Trufax-series fax boards must be added and configured in the DocTransport module. Brooktrout related settings are configured using the Brooktrout Configuration Tool provided by Brooktrout. Each Brooktrout 1034 and Trufax-series board added to DocTransport must be configured separately.

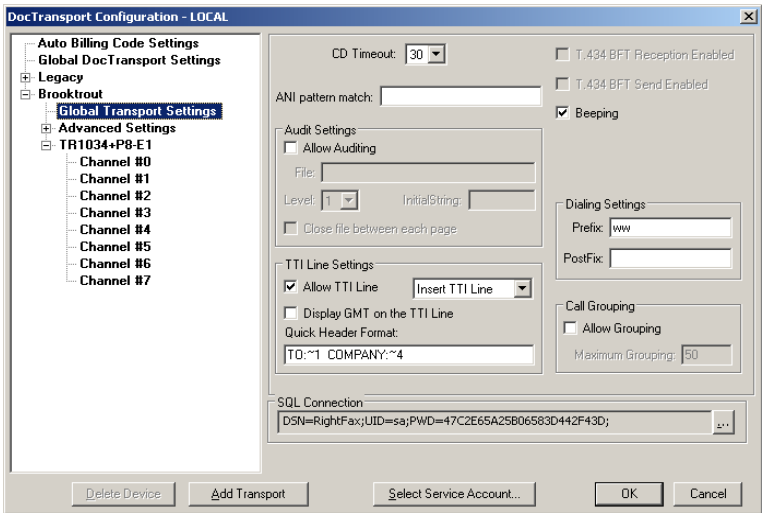
After you have specified the installed Brooktrout fax boards in DocTransport (described in "Adding transport methods" on page 48), expand the **Brooktrout** option in the list in the left pane and select an Brooktrout board in the list.

Note *Brooktrout Trufax 100 PCI and 200 PCI fax boards are configured using the Legacy BoardServer transport.*

Configuring Brooktrout Global Transport Settings

Brooktrout Global Transport Settings in the DocTransport module are global settings that apply to all of the Brooktrout 1034-series and Trufax-series fax boards and channels configured in the DocTransport module. RightFax will use these settings regardless of the fax board or fax channel in use. To configure global transport settings, select **Global Transport Settings** in the left pane. The rest of this section describes the options on this screen.

Figure 5.5 The Brooktrout 1034 *Global Transport Settings* configuration



CD Timeout Specify the length of time, in seconds, that the RightFax server will wait for a fax answer tone (CED tone) from a remote fax machine when sending a fax.

Event LogLevel Specify the level of information logged in the Application Event Log under the service name "RightFax DocTransport Module." You can select the following options:

- **None.** No information is saved.
- **Terse.** Records critical errors only.
- **Normal.** Records errors and major events only.
- **Verbose.** Records all significant events and is most useful for tracking and resolving problems.

Caution *If you leave this value set to "Verbose" for long periods of time, the Event Log can become full which may prevent new events from being logged.*

ANI Pattern Match Specify the pattern of the dialing party information string that will be received during incoming calls.

RightFax collects information about the dialing party's phone number for display in FaxUtil and for CSID routing (if used). However, some organizations receive additional information (such as ANI or DNIS) along with the caller's phone number. This box specifies the pattern of the extra data so that it can be removed prior to display or routing.

The ANI matching pattern is defined using these symbols.

Table 5b ANI Pattern Matching Symbols

Symbol	Definition
*	Matches one or more "star" characters in the source string.
#	Matches one or more "pound" characters in the source string.
X	Matches one or more digits belonging to the ANI number.
Y	Matches one or more digits belonging to the DNIS number.
Z	Matches one or more digits which are discarded.
0–9 A–D	Valid phone digits (literal digits). Separate literal digits from max-modifiers with a space.

A digit can be added after any of these symbols to specify the exact number of characters to expect.

Example For example, the "2" in the pattern x2*y indicates that the pattern will contain a maximum of two ANI digits at the beginning of the string.

Here are some examples of **ANI Pattern Match** settings and the strings they match:

Setting	Matches
1x10*y	1xxxxxxxxx***...yyy...
x2z*y2 9	xxzzz...***...yy9
x#1z	xxx...#zzz...

Allow Auditing Tells the DocTransport module to record a log of all incoming and outgoing faxes.

File Specify the path and file name of the log file to use. If the file does not exist, RightFax will create it when it logs the first entry. To output the log file directly to a network printer, enter the printer port instead of a file name. If you output to a network printer, you must also select the **Close File Between Each Page** check box.

Level Specify the level of information to include in the log. There are four levels of detail. Level 1 prints a single line summary of each fax event, Level 2 prints a detailed description of each fax event, Level 3 outputs a comma-delimited file, and Level 4 outputs a tab-delimited file.

If you set **Level** to "3," each fax event will be saved to a comma-delimited file. Each log entry appears on a separate line and includes 15 data fields. The following table lists all of the fields for each log entry in the order the fields appear.

Table 5c Audit Log Level 3 Field Descriptions

Field name	Type/format	Length	Description
Direction	String	1	Sent/received flag ("S" or "R")
Date sent	MM/DD/YYYY	10	Date that the call was initiated
Time sent	HH:MM	5	Time that the call was initiated
Channel	Numeric	2	Channel used by RightFax (0–32)
Duration	Numeric	5	Total transmission time in seconds
Phone number	Alphanumeric	31	Sent faxes: Fax number dialed Received faxes: Routing code (DID or DTMF) used
Remote ID	String	49	Remote fax machine ID
Result	String	59	Result of the fax transmission
Page count	String	79	Number of pages transmitted
Contact number	String	31	Sent faxes only: The recipient's voice number
Contact name	String	59	Sent faxes only: The recipient's name.
Company name	String	59	Sent faxes only: The recipient's company name
User ID	String	21	Sent faxes only: RightFax user ID of the sender
Billing code 1	String	15	Sent faxes only: Billing code 1
Billing code 2	String	15	Sent faxes only: Billing code 2

If you set **Level** to "4," a new file is created each hour containing that hour's fax events. Because a separate file is created for each hour's fax events, do not specify a file name in the **File** box. You can optionally specify a path to a folder where the log files, which are given default names, will be saved.

Each log entry appears on a separate line and includes 28 data fields. The following table lists all of the fields for each log entry in the order the fields appear.

Table 5d Audit Log Level 4 Field Descriptions

Field name	Type	Length	Description
Direction	String	1	Sent/received flag ("S" or "R").
Date sent	YYYYMMDD	8	Date that the call was initiated.
Time sent	HHMM	4	Time that the call was initiated.
Channel	Numeric	5	Channel used by RightFax.
Duration	Numeric	5	Total transmission time (in seconds).

Table 5d Audit Log Level 4 Field Descriptions (Continued)

Field name	Type	Length	Description
Phone number	String	127	Fax number dialed.
Remote ID	String	47	CSID of recipient fax machine.
Good pages	Numeric	5	Number of pages transmitted successfully.
Page count	Numeric	5	Total number of pages in the fax.
Board type	Numeric	1	Type of fax board used to send the fax 0 = Brooktrout 1 = GammaLink
BT call status	Numeric	5	Brooktrout call result status value (unused for GammaLink channels).
BT call line status	Numeric	5	Brooktrout call result line status value (unused for GammaLink channels).
BT fax status	Numeric	5	Brooktrout fax result status value (=32606 if GammaLink channel used).
BT fax line status	Numeric	5	Brooktrout fax result line status value (GammaLink result code if previous value equals 32606).

Table 5d Audit Log Level 4 Field Descriptions (Continued)

Field name	Type	Length	Description
CDR flags	Numeric	4	Hex value of CDR flags 0x0001 = PartialRetry 0x0002 = SchedRemote 0x0004 = SendForRemote 0x0008 = Has_ANI 0x0010 = Had_AOC 0x0020 = Had_ISDNCauseVal
AOC value 1	Numeric	9	AOC data value #1 (only valid if indicated by flags).
AOC value 2	Numeric	9	AOC data value #2 (only valid if indicated by flags).
AOC value 3	Numeric	9	AOC data value #3 (only valid if indicated by flags).
ISDN cause value	String	5	ISDN call setup cause value (only valid if indicated by flags).
Sender ID	String	21	RightFax user ID of the sender.
To name	String	59	The recipient's name.
From name	String	59	Name of sender (descriptive name, not the ID).
Contact number	String	31	The recipient's voice number.
Company name	String	59	The recipient's company name.
Billing code 1	String	15	Billing code 1.
Billing code 2	String	15	Billing code 2.

Table 5d Audit Log Level 4 Field Descriptions (Continued)

Field name	Type	Length	Description
Secure CSID	String	21	CSID match code for secure send operation.
Unique ID	String	15	Assigned unique ID for fax job.
Source server	String	47	Source server IP address or name.

InitialString This is a text message that will be included in the audit file at the beginning of every page.

This line can contain control codes that can be used to convey page formatting or other information to the application reading the file. To add control codes to this string, use the following notation.

Table 5e InitialString Control Codes

Notation	Example	Represents
\x##	\x1b	Hexadecimal character values
\###	\027	Decimal character values
^x	^[	ASCII representation of a control character

Close File Between Each Page Closes the log file after each entry. This allows you to output the log to a network printer.

Allow TTI Line The transmit terminal information (TTI) line is a line of text that prints at the top of each received fax page. The TTI line includes the transmitting fax machine, the date and time of the transmission, the fax page number, and the total page count. Follow these steps to optionally add your organization's name to the TTI line:

1. Open Windows Control Panel and run the RightFax DocTransport application.
2. Click on each fax channel for each fax board listed in the left pane.
3. Type the desired company name in the **Fax ID** box.
4. Repeat these steps on all RightFax servers and Remote BoardServer computers.

Select this option to place a TTI line at the top of every page of a fax. The date format in your TTI line is a function of the Windows international or regional settings as installed on the fax server.

If this check box is selected, you must also specify how the TTI line should be placed on the fax page.

Note *Brooktrout Trufax fax boards do not support the TTI line feature.*

- Select **Overlay TTI Line** to add the TTI line text to add any existing text or image on the first line of the fax. Note that this can obscure the TTI information. With Brooktrout fax boards, this option functions the same as inserting the TTI line.
- Select **Replace TTI Line** to replace any existing text or image on the first line of the fax with the TTI line. This erases existing fax data from the first line but ensures that the overall length of the fax stays the same.
- Select **Insert TTI Line** to add a new line to the top of the fax page for the TTI information. This retains any fax data on the first line but increases the length of the fax by one line.

Display GMT on the TTI Line Displays the local time relative to Greenwich Mean Time (GMT). If this option is *not* selected, the TTI line will display the local time at the fax's place of origin.

Quick Header Format Specify heading text to include under the TTI line on outbound faxes. Quick headers must be enabled in the **General** tab of the RightFax Server module **Configuration** dialog box (see "Enable Quick Headers" on page 22).

The quick header line can be customized using special macros that are replaced in the quick header of each fax.

Table 5f Quick header macros

Macro	Definition
~1	To-name field (59 characters maximum)
~2	Shortened to-name (23 characters maximum)
~3	To-contact number field (31 characters maximum)
~4	To-company field (59 characters maximum)
~5	Shortened to-company field (23 characters maximum)
~6	BillInfo1 field (15 characters maximum)
~7	BillInfo2 field (15 characters maximum)
~8	Unique ID (15 characters maximum)

Example For example, the setting Please deliver to: ~2 at ~5 might appear in a fax Quick Header as Please deliver to: Jane Doe at Acme, Inc.

Beeping Tells the computer in which the fax boards are installed to beep each time a call is placed or received.

Dialing Settings Prefix This field specifies one or more dialing characters to add at the beginning of every outbound fax number dialed by the server. The default setting (WW) instructs the fax boards to automatically detect a dial tone before dialing. For a list of valid dialing characters, please see page 201, of the *Administrator's Guide*.

Dialing Settings Postfix This field specifies one or more dialing characters to add at the end of every outbound fax number dialed by the fax server. For a list of valid dialing characters, please see page 201, of the *Administrator's Guide*.

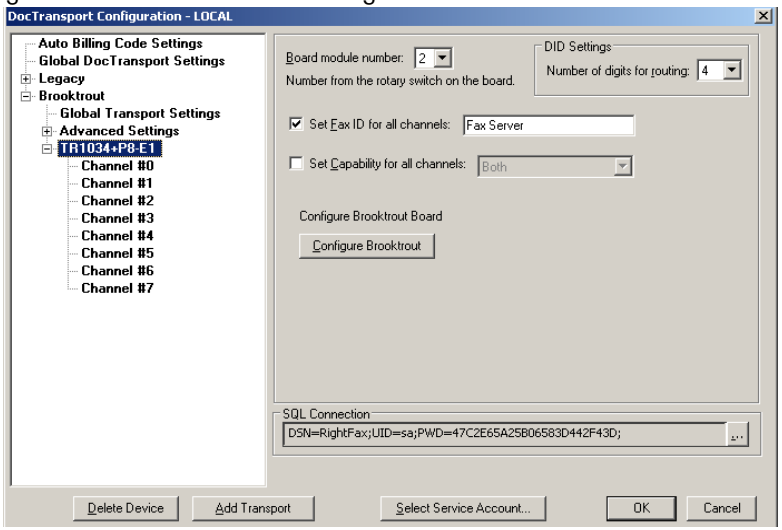
Call Grouping Whenever a fax is placed in the fax queue, Call Grouping checks the queue for another fax going to the same number. If another fax to the same number is scheduled, it keeps the line open and transmits the second fax, saving the time and money of redialing and reconnecting a second time. The Call Grouping feature is only available for use with Brooktrout fax boards. This option enables the Call Grouping feature for all Brooktrout1034 and Trufax-series fax boards.

Maximum Grouping This field specifies the maximum number of pages (1-256) that the fax server will send to one phone number before hanging up and sending another set of faxes.

Configuring Brooktrout 1034 and Trufax fax boards

After you have added a new Brooktrout fax board, it must be configured to work with RightFax. To configure the board, click the board name in the Board/Channel list in the left pane.

Figure 5.6 Brooktrout Board Configuration



Board Model Specify the nationality type of fax board installed. This may or may not be the country in which you reside.

Set Fax ID for All Channels You can specify a fax ID for all the channels on this fax board. The fax ID is transmitted by each channel on this fax board to remote fax machines. Usually, this is set to your company name or general fax number. To specify a unique fax ID for each channel, see "Configuring Brooktrout 1034 and Trufax fax channels" on page 58.

Set Capability for All Channels Sets the same capability (dial-only, answer-only, or both) for all the channels on the fax board. To specify the capability of each channel separately, see "Configuring Brooktrout 1034 and Trufax fax channels" on page 58.

Configure Brooktrout Opens the **Brooktrout Configuration Tool** for configuring Brooktrout-related board settings. For more information about the settings within the Brooktrout Configuration Tool, see Brooktrout documentation.

Opening the Brooktrout Configuration Tool

After you have configured DocTransport, you must configure Brooktrout-related board settings using the **Brooktrout Configuration Tool** provided by Brooktrout. For more information about the settings within the Brooktrout Configuration Tool, see Brooktrout documentation. Follow these steps to open the Brooktrout Configuration Tool:

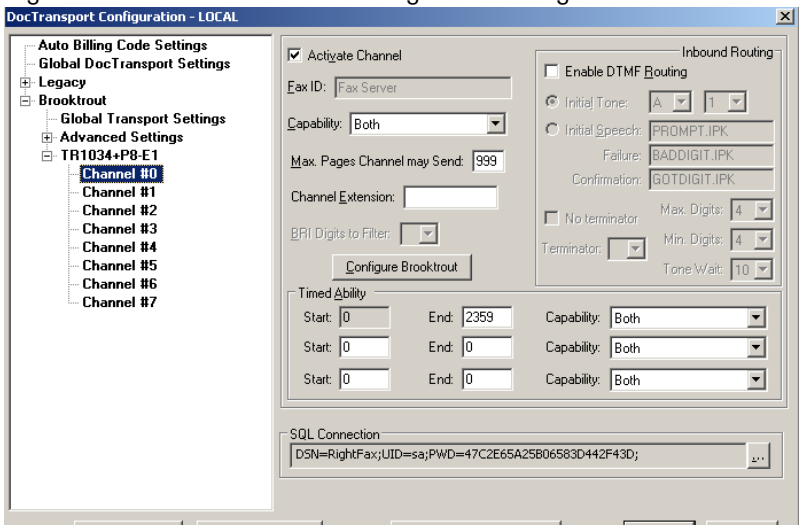
1. In the DocTransport Configuration program, click your 1034-series of Trufax-series fax board.
2. Click the Configure Brooktrout button located on the right side of the DocTransport configuration program. The Brooktrout Configuration Tool opens.

Note *The Brooktrout Configuration Tool can also be opened from the Windows Programs list (Start > Programs > Brooktrout Configuration Tool.*

Configuring Brooktrout 1034 and Trufax fax channels

Each fax channel on a Brooktrout 1034-series and Trufax-series fax board can be individually configured. To configure a channel, click the channel number in the Board/Channel list.

Figure 5.7 Brooktrout Channel Configuration Dialog Box



Activate Channel Activates this channel for use by RightFax. To deactivate the channel, click to clear this check box.

Caution *If you install two TR1034 fax boards in one computer, all 24 fax channels must be activated on the first board before any fax channels on the second board will function. This is because disabling any fax channels on a TR1034 fax board automatically disables all subsequent TR1034 channels. For example, if you have two fractional T1 lines with 12 channels plugged into the first TR1034 board and 12 channels plugged into the second board, the T1 status LED on the second board will not light and its fax channels will not be accessible by RightFax.*

Fax ID Specify the fax ID for this channel only. The fax ID is transmitted to remote fax machines to identify the sender. Usually, this is set to your company name or general fax number. This box will not be available if you selected the **Set Fax ID for all Channels** check box when configuring the Brooktrout board (see "Configuring Brooktrout 1034 and Trufax fax boards" on page 57).

Capability Sets the capability (dial-only, answer-only, or both) for this channel.

Max. Pages This Channel May Send Sets the maximum number of pages per fax that can be sent by this channel, from 0 to 999 (up to 1000 pages per fax). This lets you reserve channels for smaller faxes.

Channel Extension Assigns a routing code to all incoming faxes on this channel if no routing information is specified. Because DID, T1 with DNIS, and ISDN telephone lines require routing codes, this setting only applies to loop-start lines and T1 lines without DNIS. The **Channel Extension** is also used when DTMF routing is enabled on the line but the caller does not enter a routing code.

Configure Brooktrout Opens the **Brooktrout Configuration Tool** for configuring Brooktrout-related board settings. For more information about the settings within the Brooktrout Configuration Tool, see Brooktrout documentation.

Timed ability This feature changes the capability (send-only, answer-only, or both) of the fax channel at defined times. For example, you can set a channel to answer-only during business hours, and then switch it to both dial and answer after hours so it can be used for broadcast faxing in the evening.

You can define up to three time periods. Times are indicated in 24 hour military time ("0000" represents midnight, "1200" represents noon, and "1730" represents 5:30 p.m.).

Start Specify the beginning of the time period. The first time period always has its **Start** time set to "0000" (midnight).

End Specify the end of the time period. You must always specify the end time of the last time period as "2359".

Capability Sets the capability (dial-only, answer-only, or both) for this time period.

Inbound routing These settings all apply if you will be using DTMF routing. DTMF routing is a method for routing faxes directly to an individual based on the routing code entered manually by the caller.

Enable DTMF Routing Enables DTMF inbound routing for this channel.

Initial Tone Prompts callers to enter a routing code for the fax by playing a tone. When this option is selected, you must also select the tone to play and the duration of the tone in seconds. For information on the available tones, refer to your Brooktrout documentation.

Initial Speech Prompts callers to enter a routing code for the fax by playing a voice prompt. This requires a special voice module license for your Brooktrout board.

When this option is selected, you must also specify the file of the voice prompt. The default file, Prompt.ipk is located in the RightFax\RFBoard folder. This prompt file can be played or re-recorded via telephone.

To play the voice prompt for review, go to a command prompt on the server and enter this command:

\rfboard\voice -p -c*PhoneNum* **prompt.ipk**

where *PhoneNum* is the phone number the Brooktrout board will dial to play back the prompt.

The board will dial the phone number you specified. When you answer the phone, it will play the message. Hang up when the playback is complete.

To record a new voice prompt

1. Save a backup copy of the old Prompt.ipk file.
2. From a command prompt on the server, enter this command:

   \rfboard\voice -r -c*phonenum* **-u0 prompt.ipk**

   where *phonenum* is the phone number the Brooktrout board will dial to initiate the recording.
3. The board will dial the phone number you specified. When you answer the phone, it will begin recording your message. Press the [#] key (pound key) when you are done.

Failure Specify the file to play when a caller does not enter enough DTMF digits to route the fax. The default file, Baddigit.ipk is located in the RightFax\RFBoard folder. This prompt file can be played or re-recorded via telephone. For information on playing and recording voice prompts, see “Initial Speech” on page 75.

Confirmation Specify the file to play when a caller has correctly entered DTMF digits for routing. The default file, Gotdigit.ipk is located in the RightFax\RFBoard folder. This prompt file can be played or re-recorded via telephone. For information on playing and recording voice prompts see “Initial Speech” on page 75.

No Terminator Tells RightFax to accept the DTMF code entered by the caller as soon as the correct number of digits have been entered. No additional terminator key needs to be pressed.

Terminator Specify the key (on the phone) that the caller must press when finished entering DTMF digits. This is necessary when the **Max. Digits** and **Min. Digits** are *not* set to the same value. Because in this case the routing code can be a variable number of digits, the caller must provide some indication of when he has finished entering DTMF digits.

Max. Digits Specify the maximum number of DTMF digits that can be entered by the caller.

Min. Digits Specify the minimum number of DTMF digits that can be entered by the caller.

Tone Wait Specify the length of time in seconds to wait after the prompt is played for the caller to enter a routing code. If you have specified a terminator key (described previously), the caller must enter the code and the terminator in this length of time.

Brooktrout SR140 Boardless Fax Over IP

The Brooktrout SR140 transport is a software-only edition of fax over IP that uses the H.323 and SIP protocols. SR140 does not require a fax board. All SR140 channels require license key activation. Do not attempt SR140 setup and configuration prior to activating your SR140 license keys.

Licensing Brooktrout SR140 Channels

The Brooktrout License Manager, provided by Brooktrout allows you to self-active your SR140 license key. Instructions and an activation wizard are included with Brooktrout License Manager. Using this method requires an active internet connection. Alternatively, you may activate your SR140 channels by contacting RightFax technical support at (520) 320-7070. A support representative will guide you through the activation process.

For more information about SR140 licensing, see Answer ID 4939 at the Captaris knowledge base located at *http://www.captaris.com/Scripts/captaris.cfg/php.exe/enduser/std_alp.php*

Important *To activate your SR140 channels, you must have an SR140 license card. This card contains your SR140 license key and is included with the purchase of SR140 channels.*

To open Brooktrout License Manager

1. Click the Windows **Start** button > **Programs List** > **Cantata License Manager.** The Brooktrout License Manager opens.

   Self-activation instructions can be found by clicking **?** along the Brooktrout License Manager toolbar.

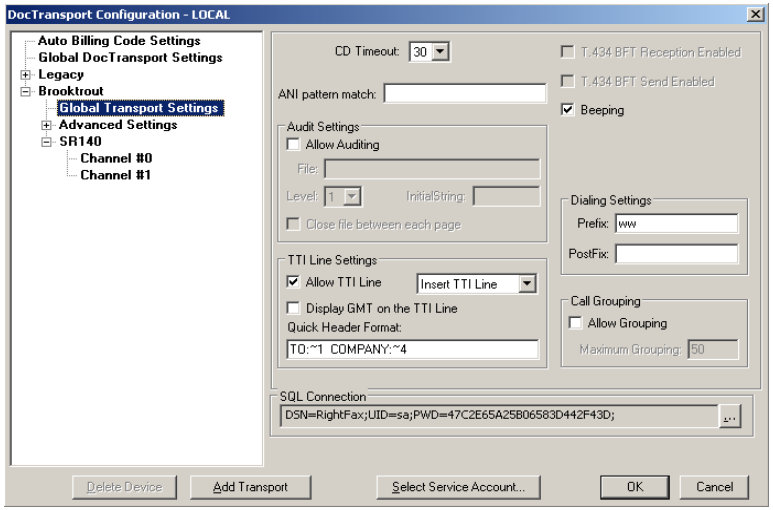
Adding the SR140 Transport

After you have activated your SR140 license you must add the installed Brooktrout fax boards in DocTransport (described in "Adding transport methods" on page 48), expand the **Brooktrout** option in the list in the left pane and select an Brooktrout board in the list.

Configuring Brooktrout SR140 Global Transport Settings

Brooktrout SR140 Global Transport Settings in the DocTransport module are global settings that apply to all Brooktrout SR140 channels configured in the DocTransport module. RightFax will use these settings regardless of the fax board or fax channel in use. To configure global transport settings, select **Global Transport Settings** in the left pane. The rest of this section describes the options on this screen.

Figure 5.8 Brooktrout SR140 *Global Transport Settings* configuration



CD Timeout Specify the length of time, in seconds, that the RightFax server will wait for a fax answer tone (CED tone) from a remote fax machine when sending a fax.

Event LogLevel Specify the level of information logged in the Application Event Log under the service name "RightFax DocTransport Module." You can select the following options:

- **None.** No information is saved.
- **Terse.** Records critical errors only.
- **Normal.** Records errors and major events only.
- **Verbose.** Records all significant events and is most useful for tracking and resolving problems.

Caution *If you leave this value set to "Verbose" for long periods of time, the Event Log can become full which may prevent new events from being logged.*

ANI Pattern Match Specify the pattern of the dialing party information string that will be received during incoming calls.

RightFax collects information about the dialing party's phone number for display in FaxUtil and for CSID routing (if used). However, some organizations receive additional information (such as ANI or DNIS) along with the caller's phone number. This box specifies the pattern of the extra data so that it can be removed prior to display or routing.

The ANI matching pattern is defined using these symbols.

Table 5g ANI Pattern Matching Symbols

Symbol	Definition
*	Matches one or more "star" characters in the source string.
#	Matches one or more "pound" characters in the source string.
X	Matches one or more digits belonging to the ANI number.
Y	Matches one or more digits belonging to the DNIS number.

Table 5g ANI Pattern Matching Symbols (Continued)

Symbol	Definition
Z	Matches one or more digits which are discarded.
0–9 A–D	Valid phone digits (literal digits). Separate literal digits from max-modifiers with a space.

A digit can be added after any of these symbols to specify the exact number of characters to expect.

Example For example, the "2" in the pattern x2*y indicates that the pattern will contain a maximum of two ANI digits at the beginning of the string.

Here are some examples of **ANI Pattern Match** settings and the strings they match:

Setting	Matches
1x10*y	1xxxxxxxxx***...yyy...
x2z*y2 9	xxzzz...***...yy9
x#1z	xxx...#zzz...

Allow Auditing Tells the DocTransport module to record a log of all incoming and outgoing faxes.

File Specify the path and file name of the log file to use. If the file does not exist, RightFax will create it when it logs the first entry. To output the log file directly to a network printer, enter the printer port instead of a file name. If you output to a network printer, you must also select the **Close File Between Each Page** check box.

Level Specify the level of information to include in the log. There are four levels of detail. Level 1 prints a single line summary of each fax event, Level 2 prints a detailed description of each fax event, Level 3 outputs a comma-delimited file, and Level 4 outputs a tab-delimited file.

If you set **Level** to "3," each fax event will be saved to a comma-delimited file. Each log entry appears on a separate line and includes 15 data fields. The following table lists all of the fields for each log entry in the order the fields appear.

Table 5h Audit Log Level 3 Field Descriptions

Field name	Type/format	Length	Description
Direction	String	1	Sent/received flag ("S" or "R")
Date sent	MM/DD/YYYY	10	Date that the call was initiated
Time sent	HH:MM	5	Time that the call was initiated
Channel	Numeric	2	Channel used by RightFax (0–32)
Duration	Numeric	5	Total transmission time in seconds
Phone number	Alphanumeric	31	Sent faxes: Fax number dialed Received faxes: Routing code (DID or DTMF) used
Remote ID	String	49	Remote fax machine ID
Result	String	59	Result of the fax transmission
Page count	String	79	Number of pages transmitted
Contact number	String	31	Sent faxes only: The recipient's voice number
Contact name	String	59	Sent faxes only: The recipient's name.
Company name	String	59	Sent faxes only: The recipient's company name
User ID	String	21	Sent faxes only: RightFax user ID of the sender
Billing code 1	String	15	Sent faxes only: Billing code 1
Billing code 2	String	15	Sent faxes only: Billing code 2

If you set **Level** to "4," a new file is created each hour containing that hour's fax events. Because a separate file is created for each hour's fax events, do not specify a file name in the **File** box. You can optionally specify a path to a folder where the log files, which are given default names, will be saved.

Each log entry appears on a separate line and includes 28 data fields. The following table lists all of the fields for each log entry in the order the fields appear.

Table 5i Audit Log Level 4 Field Descriptions

Field name	Type	Length	Description
Direction	String	1	Sent/received flag ("S" or "R").
Date sent	YYYYMMDD	8	Date that the call was initiated.
Time sent	HHMM	4	Time that the call was initiated.
Channel	Numeric	5	Channel used by RightFax.
Duration	Numeric	5	Total transmission time (in seconds).

Table 5i Audit Log Level 4 Field Descriptions (Continued)

Field name	Type	Length	Description
Phone number	String	127	Fax number dialed.
Remote ID	String	47	CSID of recipient fax machine.
Good pages	Numeric	5	Number of pages transmitted successfully.
Page count	Numeric	5	Total number of pages in the fax.
Board type	Numeric	1	Type of fax board used to send the fax 0 = Brooktrout 1 = GammaLink
BT call status	Numeric	5	Brooktrout call result status value (unused for GammaLink channels).
BT call line status	Numeric	5	Brooktrout call result line status value (unused for GammaLink channels).
BT fax status	Numeric	5	Brooktrout fax result status value (=32606 if GammaLink channel used).
BT fax line status	Numeric	5	Brooktrout fax result line status value (GammaLink result code if previous value equals 32606).

Table 5i Audit Log Level 4 Field Descriptions (Continued)

Field name	Type	Length	Description
CDR flags	Numeric	4	Hex value of CDR flags 0x0001 = PartialRetry 0x0002 = SchedRemote 0x0004 = SendForRemote 0x0008 = Has_ANI 0x0010 = Had_AOC 0x0020 = Had_ISDNCauseVal
AOC value 1	Numeric	9	AOC data value #1 (only valid if indicated by flags).
AOC value 2	Numeric	9	AOC data value #2 (only valid if indicated by flags).
AOC value 3	Numeric	9	AOC data value #3 (only valid if indicated by flags).
ISDN cause value	String	5	ISDN call setup cause value (only valid if indicated by flags).
Sender ID	String	21	RightFax user ID of the sender.
To name	String	59	The recipient's name.
From name	String	59	Name of sender (descriptive name, not the ID).
Contact number	String	31	The recipient's voice number.
Company name	String	59	The recipient's company name.
Billing code 1	String	15	Billing code 1.
Billing code 2	String	15	Billing code 2.

Table 5i Audit Log Level 4 Field Descriptions (Continued)

Field name	Type	Length	Description
Secure CSID	String	21	CSID match code for secure send operation.
Unique ID	String	15	Assigned unique ID for fax job.
Source server	String	47	Source server IP address or name.

InitialString This is a text message that will be included in the audit file at the beginning of every page.

This line can contain control codes that can be used to convey page formatting or other information to the application reading the file. To add control codes to this string, use the following notation.

Table 5j InitialString Control Codes

Notation	Example	Represents
\x##	\x1b	Hexadecimal character values
\###	\027	Decimal character values
^x	^[	ASCII representation of a control character

Close File Between Each Page Closes the log file after each entry. This allows you to output the log to a network printer.

Allow TTI Line The transmit terminal information (TTI) line is a line of text that prints at the top of each received fax page. The TTI line includes the transmitting fax machine, the date and time of the transmission, the fax page number, and the total page count. Follow these steps to optionally add your organization's name to the TTI line:

1. Open Windows Control Panel and run the RightFax DocTransport application.
2. Click on each fax channel for each fax board listed in the left pane.
3. Type the desired company name in the **Fax ID** box.
4. Repeat these steps on all RightFax servers and Remote BoardServer computers.

Select this option to place a TTI line at the top of every page of a fax. The date format in your TTI line is a function of the Windows international or regional settings as installed on the fax server.

If this check box is selected, you must also specify how the TTI line should be placed on the fax page.

- Select **Overlay TTI Line** to add the TTI line text to add any existing text or image on the first line of the fax. Note that this can obscure the TTI information. With Brooktrout fax boards, this option functions the same as inserting the TTI line.
- Select **Replace TTI Line** to replace any existing text or image on the first line of the fax with the TTI line. This erases existing fax data from the first line but ensures that the overall length of the fax stays the same.
- Select **Insert TTI Line** to add a new line to the top of the fax page for the TTI information. This retains any fax data on the first line but increases the length of the fax by one line.

Display GMT on the TTI Line Displays the local time relative to Greenwich Mean Time (GMT). If this option is *not* selected, the TTI line will display the local time at the fax's place of origin.

Quick Header Format Specify heading text to include under the TTI line on outbound faxes. Quick headers must be enabled in the **General** tab of the RightFax Server module **Configuration** dialog box (see "Enable Quick Headers" on page 22).

The quick header line can be customized using special macros that are replaced in the quick header of each fax.

Table 5k Quick header macros

Macro	Definition
~1	To-name field (59 characters maximum)
~2	Shortened to-name (23 characters maximum)
~3	To-contact number field (31 characters maximum)
~4	To-company field (59 characters maximum)
~5	Shortened to-company field (23 characters maximum)
~6	BillInfo1 field (15 characters maximum)
~7	BillInfo2 field (15 characters maximum)
~8	Unique ID (15 characters maximum)

Example For example, the setting Please deliver to: ~2 at ~5 might appear in a fax Quick Header as Please deliver to: Jane Doe at Acme, Inc.

Beeping Tells the computer in which the fax boards are installed to beep each time a call is placed or received.

Dialing Settings Prefix This field specifies one or more dialing characters to add at the beginning of every outbound fax number dialed by the server. The default setting (WW) instructs the fax boards to automatically detect a dial tone before dialing. For a list of valid dialing characters, please see page 201, of the *Administrator's Guide*.

Dialing Settings Postfix This field specifies one or more dialing characters to add at the end of every outbound fax number dialed by the fax server. For a list of valid dialing characters, please see page 201, of the *Administrator's Guide*.

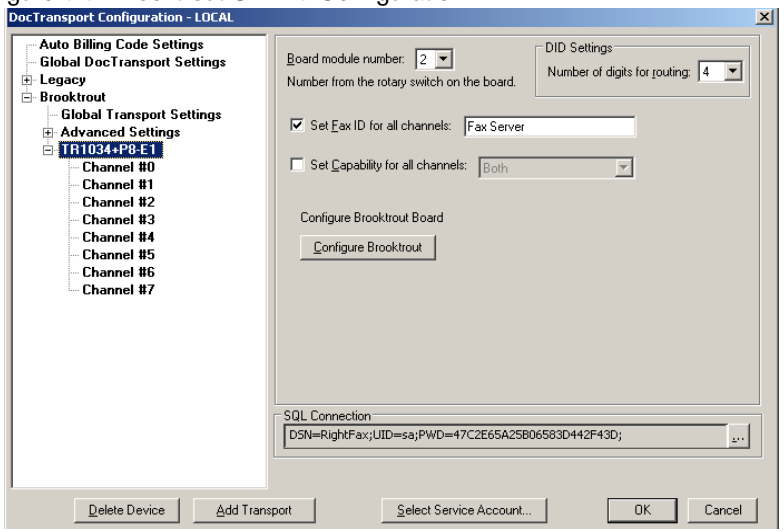
Call Grouping Whenever a fax is placed in the fax queue, Call Grouping checks the queue for another fax going to the same number. If another fax to the same number is scheduled, it keeps the line open and transmits the second fax, saving the time and money of redialing and reconnecting a second time. The Call Grouping feature is only available for use with Brooktrout fax boards. This option enables the Call Grouping feature for all Brooktrout SR140 channels.

Maximum Grouping This field specifies the maximum number of pages (1-256) that the fax server will send to one phone number before hanging up and sending another set of faxes.

Configuring Brooktrout SR140

After you have added a Brooktrout SR140 Transport, it must be configured to work with RightFax. To configure SR140, expand Brooktrout and click SR140 in the Board/Channel list in the left pane.

Figure 5.9 Brooktrout SR140 Configuration



Board Model Specify the nationality type of fax board installed. This may or may not be the country in which you reside.

Set Fax ID for All Channels You can specify a fax ID for all the channels on this fax board. The fax ID is transmitted by each channel on this fax board to remote fax machines. Usually, this is set to your company name or general fax number. To specify a unique fax ID for each channel, see "Configuring Brooktrout SR140 channels" on page 66.

Set Capability for All Channels Sets the same capability (dial-only, answer-only, or both) for all the channels on the fax board. To specify the capability of each channel separately, see "Configuring Brooktrout SR140 channels" on page 66.

Configure Brooktrout Opens the **Brooktrout Configuration Tool** for configuring Brooktrout-related settings. For more information about the settings within the Brooktrout Configuration Tool, see Brooktrout documentation.

Opening the Brooktrout Configuration Tool

After you have configured DocTransport, you must configure Brooktrout-related settings using the **Brooktrout Configuration Tool** provided by Brooktrout. For more information about the settings within the Brooktrout Configuration Tool, see Brooktrout documentation. Follow these steps to open the Brooktrout Configuration Tool:

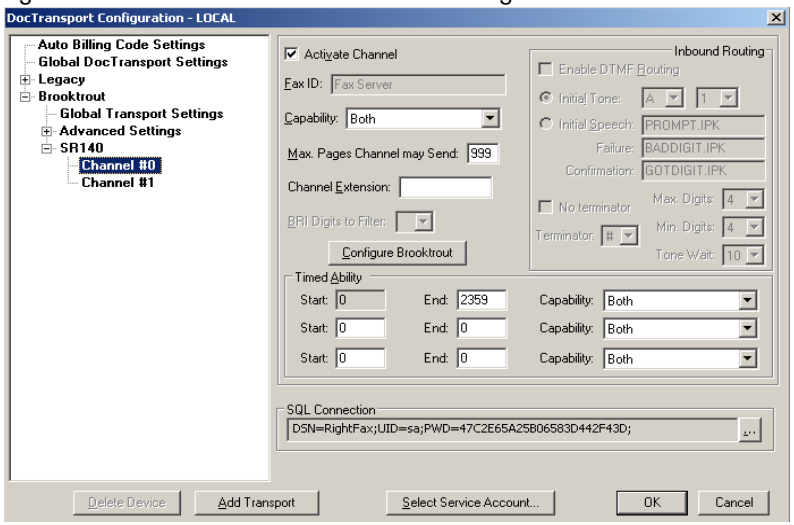
1. In the DocTransport Configuration program, click your SR140 transport.
2. Click the Configure Brooktrout button located on the right side of the DocTransport configuration program. The Brooktrout Configuration Tool opens.

Note *The Brooktrout Configuration Tool can also be opened from the Windows Programs list (Start > Programs > Brooktrout Configuration Tool.*

Configuring Brooktrout SR140 channels

Each SR140 fax channel can be individually configured. To configure a channel, click the channel number in the Board/Channel list.

Figure 5.10 Brooktrout SR140 Channel Configuration



Activate Channel Activates this channel for use by RightFax. To deactivate the channel, click to clear this check box.

Fax ID Specify the fax ID for this channel only. The fax ID is transmitted to remote fax machines to identify the sender. Usually, this is set to your company name or general fax number. This box will not be available if you selected the **Set Fax ID for all Channels** check box when configuring SR140 (see "Configuring Brooktrout SR140" on page 65).

Capability Sets the capability (dial-only, answer-only, or both) for this channel.

Max. Pages This Channel May Send Sets the maximum number of pages per fax that can be sent by this channel, from 0 to 999 (up to 1000 pages per fax). This lets you reserve channels for smaller faxes.

Channel Extension Assigns a routing code to all incoming faxes on this channel if no routing information is specified. Because DID, T1 with DNIS, and ISDN telephone lines require routing codes, this setting only applies to loop-start lines and T1 lines without DNIS. The **Channel Extension** is also used when DTMF routing is enabled on the line but the caller does not enter a routing code.

Configure Brooktrout Opens the **Brooktrout Configuration Tool** for configuring Brooktrout-related board settings. For more information about the settings within the Brooktrout Configuration Tool, see Brooktrout documentation.

Timed ability This feature changes the capability (send-only, answer-only, or both) of the fax channel at defined times. For example, you can set a channel to answer-only during business hours, and then switch it to both dial and answer after hours so it can be used for broadcast faxing in the evening.

You can define up to three time periods. Times are indicated in 24 hour military time ("0000" represents midnight, "1200" represents noon, and "1730" represents 5:30 p.m.).

Start Specify the beginning of the time period. The first time period always has its **Start** time set to "0000" (midnight).

End Specify the end of the time period. You must always specify the end time of the last time period as "2359".

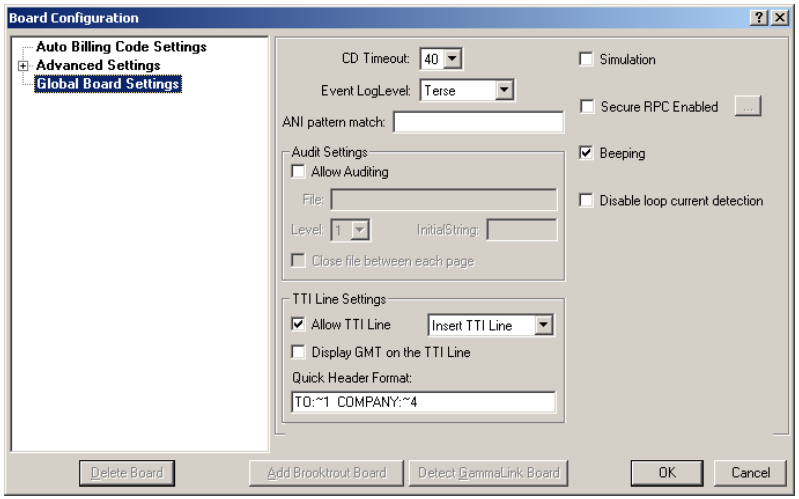
Capability Sets the capability (dial-only, answer-only, or both) for this time period.

Configuring the RightFax BoardServer

The RightFax BoardServer module must be configured if you will be using any Brooktrout TR114-series fax boards or Intel Dialogic fax boards.

In the **DocTransport Configuration** dialog box, expand the **Legacy** option and select **RightFax Boardserver**. Click the **Configure Boardserver** button. The **Board Configuration** opens.

Figure 5.11 The *Board Configuration* dialog box



Adding one or more fax boards

You must specify all of the fax boards that are installed in this computer.

To add a Brooktrout fax board, click the **Add Brooktrout** button. This opens a list of all supported Brooktrout boards. Click the board type to add and click **Select**. The new board will be added to the list of boards in the left pane. If you have more than one Brooktrout fax board installed, repeat for each board. If you select a digital fax board that requires additional digital configuration, you will be prompted to run the RightFax Digital Configuration Wizard. To run the Digital Configuration Wizard, click **Next**. For a description of each option in the Digital Configuration Wizard, click the **[?]** button in the top-right corner and then click on the option to define.

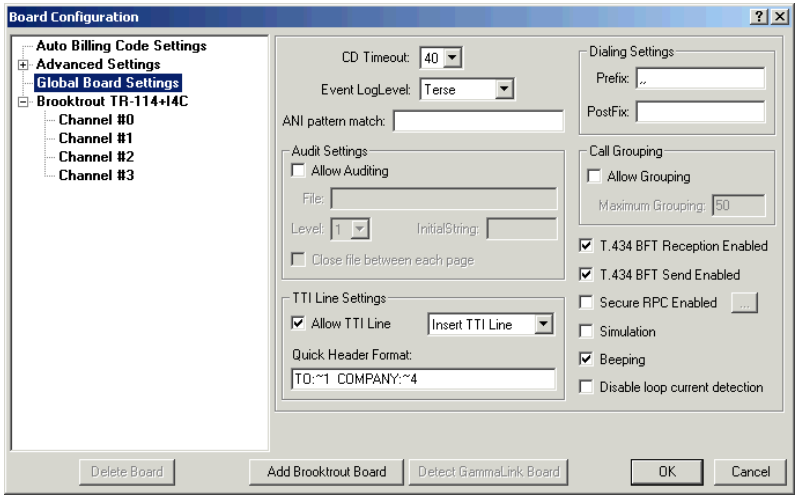
To automatically detect installed Gammalink fax boards, click the **Detect Gammalink Board** button. All installed Gammalink fax boards will be detected and added to the list of boards.

Each fax board you add will appear in the list in the left pane of the **Board Configuration** dialog box. After you have added all of your fax boards to this list, you must configure global board settings (which apply to all installed fax boards), individual board settings, and settings for each individual fax channel (the phone lines that come in and out of the boards).

Configuring BoardServer Global Board Settings

Global board settings in the BoardServer module are global settings that apply to all of the fax boards and channels configured in the BoardServer module. RightFax will use these settings regardless of the fax board or fax channel in use. To configure global fax board settings, select **Global Board Settings** in the left pane. The rest of this section describes the options on this screen.

Figure 5.12 The BoardServer *Global Board Settings* configuration



CD Timeout Specify the length of time, in seconds, that the RightFax server will wait for a fax answer tone (CED tone) from a remote fax machine when sending a fax.

Event LogLevel Specify the level of information logged in the Application Event Log under the service name "RightFax BoardServer Module." You can select the following options:

- **None.** No information is saved.
- **Terse.** Records critical errors only.
- **Normal.** Records errors and major events only.
- **Verbose.** Records all significant events and is most useful for tracking and resolving problems.

Caution *If you leave this value set to "Verbose" for long periods of time, the Event Log can become full which may prevent new events from being logged.*

ANI Pattern Match Specify the pattern of the dialing party information string that will be received during incoming calls.

RightFax collects information about the dialing party's phone number for display in FaxUtil and for CSID routing (if used). However, some organizations receive additional information (such as ANI or DNIS) along with the caller's phone number. This box specifies the pattern of the extra data so that it can be removed prior to display or routing.

The ANI matching pattern is defined using these symbols.

Table 5l ANI Pattern Matching Symbols

Symbol	Definition
*	Matches one or more "star" characters in the source string.
#	Matches one or more "pound" characters in the source string.
X	Matches one or more digits belonging to the ANI number.

Table 5l ANI Pattern Matching Symbols (Continued)

Symbol	Definition
Y	Matches one or more digits belonging to the DNIS number.
Z	Matches one or more digits which are discarded.
0–9 A–D	Valid phone digits (literal digits). Separate literal digits from max-modifiers with a space.

A digit can be added after any of these symbols to specify the exact number of characters to expect.

Example For example, the "2" in the pattern x2*y indicates that the pattern will contain a maximum of two ANI digits at the beginning of the string.

Here are some examples of **ANI Pattern Match** settings and the strings they match:

Setting	Matches
1x10*y	1xxxxxxxxxx***...yyy...
x2z*y2 9	xxzzz...***...yy9
x#1z	xxx...#zzz...

Allow Auditing Tells the DocTransport module to record a log of all incoming and outgoing faxes.

File Specify the path and file name of the log file to use. If the file does not exist, RightFax will create it when it logs the first entry. To output the log file directly to a network printer, enter the printer port instead of a file name. If you output to a network printer, you must also select the **Close File Between Each Page** check box.

Level Specify the level of information to include in the log. There are four levels of detail. Level 1 prints a single line summary of each fax event, Level 2 prints a detailed description of each fax event, Level 3 outputs a comma-delimited file, and Level 4 outputs a tab-delimited file.

If you set **Level** to "3," each fax event will be saved to a comma-delimited file. Each log entry appears on a separate line and includes 15 data fields. The following table lists all of the fields for each log entry in the order the fields appear.

Table 5m Audit Log Level 3 Field Descriptions

Field name	Type/format	Length	Description
Direction	String	1	Sent/received flag ("S" or "R")
Date sent	MM/DD/YYYY	10	Date that the call was initiated
Time sent	HH:MM	5	Time that the call was initiated
Channel	Numeric	2	Channel used by RightFax (0–32)
Duration	Numeric	5	Total transmission time in seconds
Phone number	Alphanumeric	31	Sent faxes: Fax number dialed Received faxes: Routing code (DID or DTMF) used
Remote ID	String	49	Remote fax machine ID
Result	String	59	Result of the fax transmission
Page count	String	79	Number of pages transmitted
Contact number	String	31	Sent faxes only: The recipient's voice number
Contact name	String	59	Sent faxes only: The recipient's name.

Table 5m Audit Log Level 3 Field Descriptions (Continued)

Field name	Type/format	Length	Description
Company name	String	59	Sent faxes only: The recipient's company name
User ID	String	21	Sent faxes only: RightFax user ID of the sender
Billing code 1	String	15	Sent faxes only: Billing code 1
Billing code 2	String	15	Sent faxes only: Billing code 2

If you set **Level** to "4," a new file is created each hour containing that hour's fax events. Because a separate file is created for each hour's fax events, do not specify a file name in the **File** box. You can optionally specify a path to a folder where the log files, which are given default names, will be saved.

Each log entry appears on a separate line and includes 28 data fields. The following table lists all of the fields for each log entry in the order the fields appear.

Table 5n Audit Log Level 4 Field Descriptions

Field name	Type	Length	Description
Direction	String	1	Sent/received flag ("S" or "R").
Date sent	YYYYMMDD	8	Date that the call was initiated.
Time sent	HHMM	4	Time that the call was initiated.
Channel	Numeric	5	Channel used by RightFax.
Duration	Numeric	5	Total transmission time (in seconds).

Table 5n Audit Log Level 4 Field Descriptions (Continued)

Field name	Type	Length	Description
Phone number	String	127	Fax number dialed.
Remote ID	String	47	CSID of recipient fax machine.
Good pages	Numeric	5	Number of pages transmitted successfully.
Page count	Numeric	5	Total number of pages in the fax.
Board type	Numeric	1	Type of fax board used to send the fax 0 = Brooktrout 1 = GammaLink
BT call status	Numeric	5	Brooktrout call result status value (unused for GammaLink channels).
BT call line status	Numeric	5	Brooktrout call result line status value (unused for GammaLink channels).
BT fax status	Numeric	5	Brooktrout fax result status value (=32606 if GammaLink channel used).
BT fax line status	Numeric	5	Brooktrout fax result line status value (GammaLink result code if previous value equals 32606).

Table 5n Audit Log Level 4 Field Descriptions (Continued)

Field name	Type	Length	Description
CDR flags	Numeric	4	Hex value of CDR flags 0x0001 = PartialRetry 0x0002 = SchedRemote 0x0004 = SendForRemote 0x0008 = Has_ANI 0x0010 = Had_AOC 0x0020 = Had_ISDNCauseVal
AOC value 1	Numeric	9	AOC data value #1 (only valid if indicated by flags).
AOC value 2	Numeric	9	AOC data value #2 (only valid if indicated by flags).
AOC value 3	Numeric	9	AOC data value #3 (only valid if indicated by flags).
ISDN cause value	String	5	ISDN call setup cause value (only valid if indicated by flags).
Sender ID	String	21	RightFax user ID of the sender.
To name	String	59	The recipient's name.
From name	String	59	Name of sender (descriptive name, not the ID).
Contact number	String	31	The recipient's voice number.
Company name	String	59	The recipient's company name.
Billing code 1	String	15	Billing code 1.
Billing code 2	String	15	Billing code 2.

Table 5n Audit Log Level 4 Field Descriptions (Continued)

Field name	Type	Length	Description
Secure CSID	String	21	CSID match code for secure send operation.
Unique ID	String	15	Assigned unique ID for fax job.
Source server	String	47	Source server IP address or name.

InitialString This is a text message that will be included in the audit file at the beginning of every page.

This line can contain control codes that can be used to convey page formatting or other information to the application reading the file. To add control codes to this string, use the following notation.

Table 5o InitialString Control Codes

Notation	Example	Represents
\x##	\x1b	Hexadecimal character values
\###	\027	Decimal character values
^x	^[	ASCII representation of a control character

Close File Between Each Page Closes the log file after each entry. This allows you to output the log to a network printer.

Allow TTI Line The transmit terminal information (TTI) line is a line of text that prints at the top of each received fax page. The TTI line includes the transmitting fax machine, the date and time of the

transmission, the fax page number, and the total page count. Follow these steps to optionally add your organization's name to the TTI line:

1. Open Windows Control Panel and run the RightFax DocTransport application.
2. Click on each fax channel for each fax board listed in the left pane.
3. Type the desired company name in the **Fax ID** box.
4. Repeat these steps on all RightFax servers and Remote BoardServer computers.

Select this option to place a TTI line at the top of every page of a fax. The date format in your TTI line is a function of the Windows international or regional settings as installed on the fax server.

If this check box is selected, you must also specify how the TTI line should be placed on the fax page.

- Select **Overlay TTI Line** to add the TTI line text to add any existing text or image on the first line of the fax. Note that this can obscure the TTI information. With Brooktrout fax boards, this option functions the same as inserting the TTI line.
- Select **Replace TTI Line** to replace any existing text or image on the first line of the fax with the TTI line. This erases existing fax data from the first line but ensures that the overall length of the fax stays the same.
- Select **Insert TTI Line** to add a new line to the top of the fax page for the TTI information. This retains any fax data on the first line but increases the length of the fax by one line.

Display GMT on the TTI Line Displays the local time relative to Greenwich Mean Time (GMT). If this option is *not* selected, the TTI line will display the local time at the fax's place of origin.

Quick Header Format Specify heading text to include under the TTI line on outbound faxes. Quick headers must be enabled in the **General** tab of the RightFax Server module **Configuration** dialog box (see "Enable Quick Headers" on page 22).

Note *Intel Dialogic fax boards do not support the quick header feature.*

The quick header line can be customized using special macros that are replaced in the quick header of each fax.

Table 5p Quick header macros

Macro	Definition
~1	To-name field (59 characters maximum)
~2	Shortened to-name (23 characters maximum)
~3	To-contact number field (31 characters maximum)
~4	To-company field (59 characters maximum)
~5	Shortened to-company field (23 characters maximum)
~6	BillInfo1 field (15 characters maximum)
~7	BillInfo2 field (15 characters maximum)
~8	Unique ID (15 characters maximum)

Example For example, the setting Please deliver to: ~2 at ~5 might appear in a fax Quick Header as Please deliver to: Jane Doe at Acme, Inc.

Simulation Disables any currently configured fax channels but allows simulated fax sending. Outgoing faxes will appear to send but will not. Simulation mode can be used with no fax boards installed.

Secure RPC Enabled Encrypts the data exchanged between multiple RightFax BoardServer modules or between a RightFax BoardServer module and the FaxStat program. Any BoardServer

service on any other RightFax server communicating with this server must be started using a valid account and password rather than a local system account.

If you select this option, you must specify a user account that the BoardServer service can use for authentication to and from other BoardServer modules on the network. To specify a user account, click the **[...]** button to the right of this option and enter a login name and password.

Beeping Tells the computer in which the fax boards are installed to beep each time a call is placed or received.

Disable Loop Current Detection Disables the fax transmission error correction feature of Brooktrout fax boards. Select this check box if error correction is causing excessive fax transmission failures.

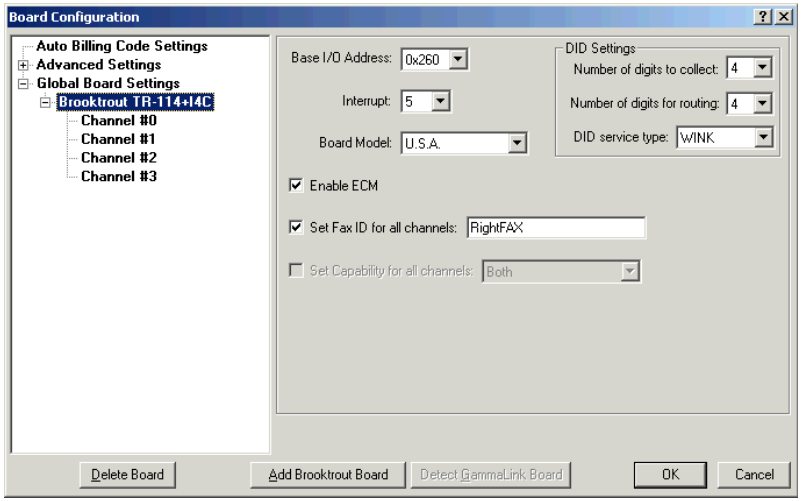
Call Grouping Whenever a fax is placed in the fax queue, Call Grouping checks the queue for another fax going to the same number. If another fax to the same number is scheduled, it keeps the line open and transmits the second fax, saving the time and money of redialing and reconnecting a second time. The Call Grouping feature is only available for use with Brooktrout fax boards. This option enables the Call Grouping feature for all Brooktrout1034 and Trufax-series fax boards.

Maximum Grouping This field specifies the maximum number of pages (1-256) that the fax server will send to one phone number before hanging up and sending another set of faxes.

Configuring analog Brooktrout fax boards

After you have added a new Brooktrout fax board, it must be configured to work with RightFax. To configure the board, click the board name in the Board/Channel list in the left pane.

Figure 5.13 Brooktrout Board Configuration



Base I/O Address The I/O address of the first channel on the board. This value must match the physical I/O address set on the fax board. For information on setting the I/O address on your fax board, refer to the documentation included with the board.

Interrupt The interrupt setting used for all Brooktrout fax boards in the computer. Make sure the selected interrupt does not conflict with other hardware in the system.

Board Model Specify the nationality type of fax board installed. This may or may not be the country in which you reside.

Disable Loop Current Detection Disables the fax transmission error correction feature of Brooktrout fax boards. Select this check box if error correction is causing excessive fax transmission failures.

Set Fax ID for All Channels You can specify a fax ID for all the channels on this fax board. The fax ID is transmitted by each channel on this fax board to remote fax machines. Usually, this is set to your company name or general fax number. To specify a unique fax ID for each channel, see "Configuring Brooktrout fax channels" on page 74.

Set Capability for All Channels Sets the same capability (dial-only, answer-only, or both) for all the channels on the fax board. To specify the capability of each channel separately, see "Configuring Brooktrout fax channels" on page 74.

DID settings Direct Inward Dial (DID) is a phone line service that allows inbound fax routing based on the phone number that was used to dial in to your fax server. The fax board reads a set number of digits from the phone line and compares these digits to each RightFax user's routing code. If a match is made, the fax can be successfully routed.

These settings will only affect DID-capable fax boards.

Number of Digits to Collect Specify the number of digits being sent to you by the phone company during incoming calls. This value is fixed and maintained by your phone company when your DID service is installed. If you are not sure how many digits are being forwarded, contact your telephone service provider.

Number of Digits for Routing Specify the number of received digits to use for DID routing. This is the number of digits in each RightFax user's routing code. This value can be equal to, but not greater than, the **Number of Digits to Collect** setting.

DID Service Type Specify the type of DID service (WINK or IMMEDIATE). This setting is determined by the phone company when your DID service is installed. If you are not sure how to set this option, contact your telephone service provider.

Configuring digital Brooktrout fax boards

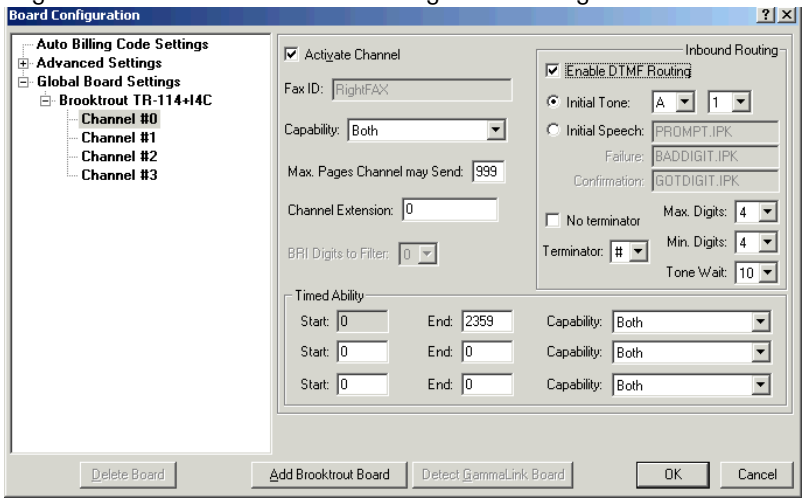
After you have set up digital fax boards in the BoardServer configuration program, you must configure the RightFax server to recognize your network interface cards. When you add a digital Brooktrout fax board in the BoardServer configuration program, a new option, "Digital Configuration," appears at the top of the tree in the left pane. Click this option to run the digital configuration wizard. Complete each entry in the wizard for your network interface card.

For a description of any option in the wizard, click the **[?]** icon in the top right corner of the dialog box, and then click the box you want help with. Options that are unavailable either do not apply to the board type or settings you have selected, or those settings are not optional.

Configuring Brooktrout fax channels

Each fax channel on a Brooktrout fax board can be individually configured. To configure a channel, click the channel number in the Board/Channel list.

Figure 5.14 Brooktrout Channel Configuration Dialog Box



Activate Channel Activates this channel for use by RightFax. To deactivate the channel, click to clear this check box.

Caution *If you install two TR1034 fax boards in one computer, all 24 fax channels must be activated on the first board before any fax channels on the second board will function. This is because disabling any fax channels on a TR1034 fax board automatically disables all subsequent TR1034 channels. For example, if you have two fractional T1 lines with 12 channels plugged into the first TR1034 board and 12 channels plugged into the second board, the T1 status LED on the second board will not light and its fax channels will not be accessible by RightFax.*

Enable ECM Enables CCITT error correction mode when sending faxes. Error correction can improve fax quality on a noisy phone line but can also increase the time it takes to send faxes.

Fax ID Specify the fax ID for this channel only. The fax ID is transmitted to remote fax machines to identify the sender. Usually, this is set to your company name or general fax number. This box will not be available if you selected the **Set Fax ID for all Channels** check box when configuring the Brooktrout board (see "Configuring analog Brooktrout fax boards" on page 73).

Capability Sets the capability (dial-only, answer-only, or both) for this channel. This box will not be available if you selected the **Set Capability for all Channels** check box when configuring the Brooktrout board (see "Configuring analog Brooktrout fax boards" on page 73).

Max. Pages This Channel May Send Sets the maximum number of pages per fax that can be sent by this channel, from 0 to 999 (up to 1000 pages per fax). This lets you reserve channels for smaller faxes.

Channel Extension Assigns a routing code to all incoming faxes on this channel if no routing information is specified. Because DID, T1 with DNIS, and ISDN telephone lines require routing codes, this setting only applies to loop-start lines and T1 lines without DNIS. The **Channel Extension** is also used when DTMF routing is enabled on the line but the caller does not enter a routing code.

Timed ability This feature changes the capability (send-only, answer-only, or both) of the fax channel at defined times. For example, you can set a channel to answer-only during business hours, and then switch it to both dial and answer after hours so it can be used for broadcast faxing in the evening.

You can define up to three time periods. Times are indicated in 24 hour military time ("0000" represents midnight, "1200" represents noon, and "1730" represents 5:30 p.m.).

Start Specify the beginning of the time period. The first time period always has its **Start** time set to "0000" (midnight).

End Specify the end of the time period. You must always specify the end time of the last time period as "2359".

Capability Sets the capability (dial-only, answer-only, or both) for this time period.

Inbound routing These settings all apply if you will be using DTMF routing. DTMF routing is a method for routing faxes directly to an individual based on the routing code entered manually by the caller.

Enable DTMF Routing Enables DTMF inbound routing for this channel.

Initial Tone Prompts callers to enter a routing code for the fax by playing a tone. When this option is selected, you must also select the tone to play and the duration of the tone in seconds. For information on the available tones, refer to your Brooktrout documentation.

Initial Speech Prompts callers to enter a routing code for the fax by playing a voice prompt. This requires a special voice module license for your Brooktrout board.

When this option is selected, you must also specify the file of the voice prompt. The default file, Prompt.ipk is located in the RightFax\RFBoard folder. This prompt file can be played or re-recorded via telephone.

To play the voice prompt for review, go to a command prompt on the server and enter this command:

\rfboard\voice -p -c*PhoneNum* **prompt.ipk**

where *PhoneNum* is the phone number the Brooktrout board will dial to play back the prompt.

The board will dial the phone number you specified. When you answer the phone, it will play the message. Hang up when the playback is complete.

To record a new voice prompt

1. Save a backup copy of the old Prompt.ipk file.
2. From a command prompt on the server, enter this command:

   \rfboard\voice -r -c*phonenum* **-u0 prompt.ipk**

   where *phonenum* is the phone number the Brooktrout board will dial to initiate the recording.
3. The board will dial the phone number you specified. When you answer the phone, it will begin recording your message. Press the [#] key (pound key) when you are done.

Failure Specify the file to play when a caller does not enter enough DTMF digits to route the fax. The default file, Baddigit.ipk is located in the RightFax\RFBoard folder. This prompt file can be played or re-recorded via telephone. For information on playing and recording voice prompts, see "Initial Speech" on page 75.

Confirmation Specify the file to play when a caller has correctly entered DTMF digits for routing. The default file, Gotdigit.ipk is located in the RightFax\RFBoard folder. This prompt file can be played or re-recorded via telephone. For information on playing and recording voice prompts see "Initial Speech" on page 75.

No Terminator Tells RightFax to accept the DTMF code entered by the caller as soon as the correct number of digits have been entered. No additional terminator key needs to be pressed.

Terminator Specify the key (on the phone) that the caller must press when finished entering DTMF digits. This is necessary when the **Max. Digits** and **Min. Digits** are *not* set to the same value. Because in this case the routing code can be a variable number of digits, the caller must provide some indication of when he has finished entering DTMF digits.

Max. Digits Specify the maximum number of DTMF digits that can be entered by the caller.

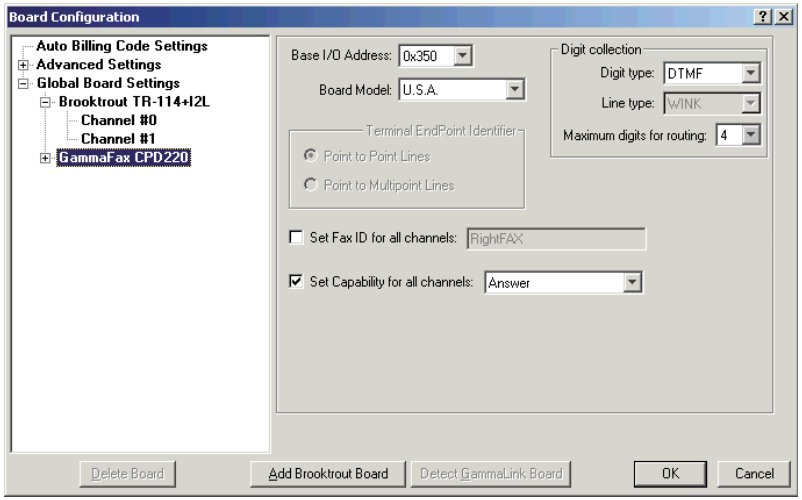
Min. Digits Specify the minimum number of DTMF digits that can be entered by the caller.

Tone Wait Specify the length of time in seconds to wait after the prompt is played for the caller to enter a routing code. If you have specified a terminator key (described previously), the caller must enter the code and the terminator in this length of time.

Configuring GammaLink fax boards

After you have added a new GammaLink fax board, it must be configured to work with RightFax. To configure the board, click the board name in the Board/Channel list.

Figure 5.15 GammaLink Board Configuration Dialog Box



Base I/O Address The I/O address of the first channel on the board. This value must match the physical I/O address set on the fax board. For information on setting the I/O address on your fax board, refer to the documentation included with the board.

Board Model Specify the nationality type of fax board installed. This may or may not be the country in which you reside.

Set Fax ID for All Channels Enable and specify a fax ID for all the channels on this fax board. The fax ID is transmitted by each channel on this fax board to remote fax machines. Usually, this is set to your company name or general fax number. You can also specify separate fax IDs for each separate channel (see "Configuring GammaLink fax channels" on page 78).

Set Capability for All Channels Sets the same capability (dial-only, answer-only, or both) for all the channels on the fax board. You can also specify the capability of each channel separately (see "Configuring GammaLink fax channels" on page 78).

Terminal endpoint identifier The terminal endpoint identifier is required if you have installed GammaLink ISDN-BRI fax boards. Check with your phone company on the type of BRI line you have installed. Although the CPi/200-BRI board supports both point-to-point (PTP) and point-to-multipoint (PTMP), the CPi/200-BRI board cannot be used on a shared BRI line.

Point-to-Point Lines Tells RightFax to answer all incoming calls with the BRI fax board. This is the most common connection type, used when there is only one BRI device on the line.

Point-to-Multipoint Lines Allows RightFax to support up to eight devices on one BRI line. This connection type is used when multiple devices share the same BRI line.

Digit Type Specify the type of digits (touch-tone or pulse) that will be delivered to the board from the phone company or your PBX. In most cases, this should be set to DTMF. If you're not sure what to enter here, contact your telephone company or PBX administrator.

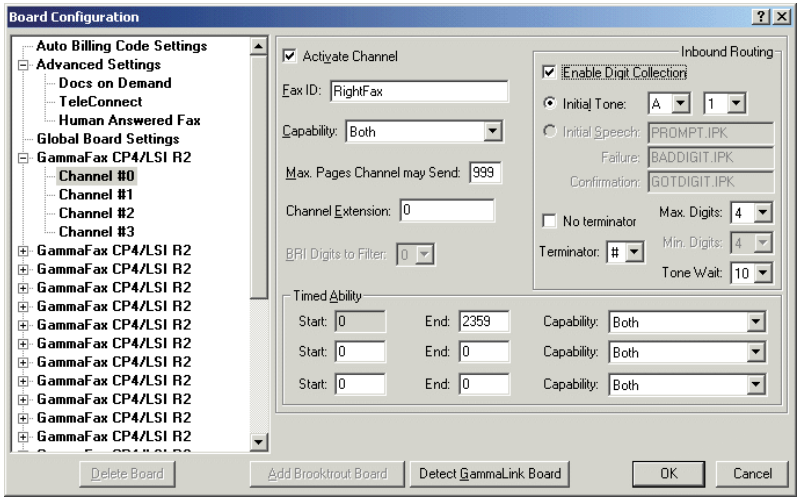
Line Type Specify the type of line service. For GammaLink boards, you must click "WINK."

Maximum Digits for Routing Specify the number of received digits to use for DID routing. This is the number of digits in each RightFax user's routing code.

Configuring GammaLink fax channels

Each fax channel on your GammaLink fax board can be individually configured. To configure a channel, click the channel number in the Board/Channel list.

Figure 5.16 GammaLink Channel Configuration Dialog Box



Activate Channel Activates this channel for use by RightFax. Click to clear this check box to deactivate the channel.

Fax ID Specify the fax ID for this channel only. The fax ID is transmitted to remote fax machines to identify the sender. Usually, this is set to your company name or general fax number. This box will not be available if you checked the **Set Fax ID for all Channels** check box when configuring the GammaLink board (see "Configuring GammaLink fax boards" on page 77).

Capability Sets the capability (dial-only, answer-only, or both) for this channel only.

Max. Pages Channel may Send Sets the maximum number of pages per fax that can be sent by this channel, from 0 to 999 (up to 1000 pages per fax). This lets you reserve channels for smaller size faxes only.

Channel Extension Assigns a routing code to all incoming faxes on this channel if no routing information is specified. Because DID, T1 with DNIS, and ISDN telephone lines require routing codes, this setting only applies to loop-start lines and T1 lines without DNIS. The **Channel Extension** is also used when DTMF routing is enabled on the line but the caller does not enter a routing code.

BRI Digits to Filter Specify the number of digits to remove from the incoming ISDN phone number to leave only the necessary routing code. This parameter is only necessary if you have installed GammaLink ISDN-BRI fax boards.

Timed ability This feature changes the capability (send-only, answer-only, or both) of the fax channel at specified times. For example, you can set a channel to answer-only during business hours, and then switch it to both dial and answer after hours so it can be used for broadcast faxing in the evening.

You can define up to three time periods. Times are indicated in 24 hour military time (i.e., "0000" represents midnight, "1200" represents noon, and "1730" represents 5:30 p.m.).

Start Specify the beginning of the time period. The first time period always has its Start time set to "0000" (midnight).

End Specify the end of the time period. You must always specify the end time of the last time period as "2359."

Capability Sets the capability (dial-only, answer-only, or both) for this time period.

Inbound routing These settings apply if you will be routing incoming faxes based on special digits that are received with the call (for example, DTMF, DID, or digital).

Enable Digit Collection Enables digit collection for this channel regardless of the type of signaling (DTMF, DID, or digital). You should not select this check box if no routing digits are being passed.

Initial Tone Prompts callers to enter a routing code for the fax by playing a tone. When this option is selected, you must also select the tone to play and the duration of the tone in seconds. For information on the available tones, refer to your GammaLink documentation.

No Terminator Tells RightFax to accept a DTMF code entered by the caller as soon as the correct number of digits have been entered. No additional terminator key needs to be pressed.

Terminator Specify the key (on the phone) that the caller must press when finished entering DTMF digits. This is necessary when the **Max. Digits** and **Min. Digits** are not set to the same value. Because in this case the routing code can be a variable number of digits, the caller must provide some indication of when he has finished entering DTMF digits.

Max. Digits Specify the maximum number of digits that can be entered by the caller.

Min. Digits Specify the minimum number of digits that can be entered by the caller.

Tone Wait Specify the length of time in seconds to wait after the prompt is played for the caller to enter a routing code. If you have specified a terminator character (described previously), then the caller must enter the code and the terminator in this length of time.

Configuring the Human Answered Fax feature in the advanced settings

The Advanced Settings on the BoardServer configuration dialog box apply to the Docs-on-Demand and TeleConnect optional modules and to the Human Answered Fax feature. Refer to the *RightFax Docs-on-Demand Guide* or *RightFax TeleConnect Guide* for installation and configuration instructions for these products.

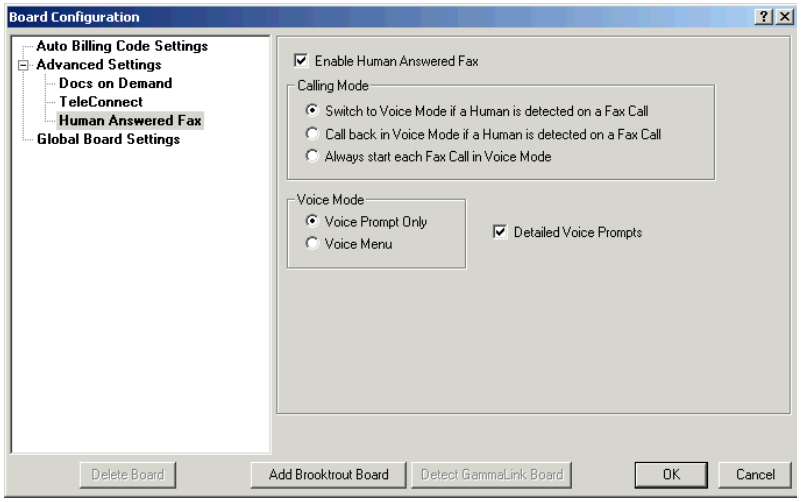
The Human Answered Fax feature detects when an outbound fax call is answered by a person, rather than a fax machine, and then provides an automated voice message informing the recipient that a fax is being sent. The recipient is then offered one or more options for receiving the fax.

Because it uses digital voice prompts, the Human Answered Fax feature requires that you have installed at least one Brooktrout fax board with licensed voice capability. For information on voice-compatible Brooktrout fax boards, refer to your fax board documentation or contact your Brooktrout fax board distributor.

The Human Answered Fax feature uses voice files located in the RFBoard\Voices\Dir folder on the RightFax server. Voice files are saved as Dialogic OKI32 files (.vox files). These files can be played or modified using any sound editor that supports the Dialogic OKI32 file format.

To enable and configure the Human Answered Fax feature, expand **Advanced Settings**, and then click **Human Answered Fax** in the list in the left pane.

Figure 5.17 The *Human Answered Fax Configuration* dialog box



Enable Human Answered Fax Enables the Human Answered Fax feature.

Calling Mode Select one of the following options:

- **Switch to Voice Mode if a Human is detected on a Fax Call.** This option causes the RightFax server to switch from fax transmission mode to voice mode as soon as a human voice is detected. If a fax machine is detected, the fax will be sent.
- **Call back in Voice Mode if a Human is detected on a Fax Call.** This option causes the RightFax server to hang up when a human voice is detected and immediately call back in voice mode. If a fax machine is detected on either call, the fax will be sent.
- **Always start each Fax Call in Voice Mode.** This option causes the RightFax server to initiate all outbound fax calls in voice mode. If you select this option, you should also select **Voice Prompt Only** under **Voice Mode**. This is because if a fax machine picks up the call, RightFax will always send the fax after a short delay, whereas if you select the **Voice Menu** option, RightFax will wait indefinitely for a response from the call recipient, and the fax will never be sent.

Voice Mode Select one of the following options:

- **Voice Prompt Only.** This option plays a voice prompt to the call recipient and then waits for a fax tone before transmitting. The voice prompt is a message informing the call recipient that this is an incoming fax. The voice prompt used by the RightFax server can be either simple or detailed.
- **Voice Menu.** This option plays a voice prompt followed by a menu of options for the call recipient. The voice prompt used by the RightFax server can be either simple or detailed.

If the voice menu is enabled, the call recipient will first hear either the simple or detailed voice prompt (depending on which you have enabled). The prompt will be followed by the file HAF_MainMenu.vox, which says "To receive this fax press 1 or stay on the line. To Cancel this fax press 9."

- If the call recipient presses 1, the file HAF_PressStart.vox plays saying "Please Press Start on your Fax machine To Receive your Documents" and the fax server will attempt to send the fax.
- If the call recipient presses 9, the file HAF_Cancelled.vox plays saying "This Fax Has Been Cancelled. We apologize for any Inconvenience" and the fax will not be sent.
- If the caller does not press 1 or 9 within 10 seconds, the menu will automatically play the file HAF_PressStart.vox prompting the call recipient to start the fax machine, then the fax server will attempt to send the fax.

Detailed Voice Prompts The Human Answered Fax feature provides two types of voice prompt: a simple voice prompt and a detailed voice prompt.

The simple voice prompt plays the file HAF_ThisisaFax.vox which says "This is a fax," followed by HAF_PressStart.vox which says "Please press start on your fax machine to receive your documents."

The detailed voice prompt combines several separate voice files to create a unique message that says "This is an *n* page fax." If you select the **Detailed Voice Prompts** option in the **Human**

Answered Fax tab of the **Board Configuration** dialog box (described on page 80), the RightFax server will use the detailed voice prompt.

The detailed voice prompt always includes the number of pages in the fax and uses the appropriate a/an article to match the number of pages. The detailed voice prompt can include "...from *[company name]*" at the end of the prompt if a file called HAF_Source.vox is located in the \Voices folder. This file is not provided with the RightFax server software, so you must create this file if you want your organization name identified as the source of the fax. The detailed voice prompt then plays HAF_PressStart.vox which says "Please press start on your fax machine to receive your documents."

Translating the voice files

If you will be using the Human Answered Fax feature with a language other than English, follow these guidelines when configuring Human Answered Fax (described on page 79):

- Record a new translated version of the file HAF_ThisisaFax.vox that will inform the call recipient that a fax transmission is being attempted.
- Select **Voice Prompt Only** under **Voice Mode**.
- Do not select the option **Detailed Voice Prompts**.

Note *Captaris recommends using the simple voice prompt without the menu when translating the Human Answered Fax voice files to languages other than English. Because both the menu and the detailed voice prompt are generated by playing several separate voice files in sequence, simply translating the individual files may result in improper syntax. For descriptions of all of the voice files in the RFBoard\Voices\Dir folder on the RightFax server, refer to the TeleConnect User's Guide.*

Adding data to the ISDN string

You can add data to the calling party number field of the ISDN string for each fax sent from the RightFax server. This data can be captured by some PBX systems for billing purposes. Before implementing this feature, verify that the PBX system can accept the data. If it does not, the PBX will reject the call.

To enable this feature, edit the Windows registry. Navigate to the subkey HKEY_LOCAL_MACHINE\Software\RightFax\Boardserver. Add the REG_DWORD registry value UseISDNCallingParty.

The data options for the string are described in the following table.

Table 5q ISDN Data String Options

Data	Value
Fax number dialed.	1
RightFax user ID of the sender.	2
The recipient's voice number.	3
The recipient's name.	4
The recipient's company name.	5
Billing code 1.	6
Billing code 2.	7
Assigned unique ID for fax job.	8
CSID match code for secure send operation.	9
Name of the sender.	10
Source server IP address or name.	11

Defining an RTI line

The RTI (Receipt Terminal Information) line is a line of text that can be printed at the bottom of each received fax page. The RTI line includes information about the fax that supplements the TTI line such as the total number of pages received, the name of the fax

server that received the fax, and the sender's caller ID. You can enable or disable the RTI line, specify the information you want it to include, specify the font size, and specify where on the fax page to print the line.

To enable this feature, edit the registry. Navigate to the subkey HKEY_LOCAL_MACHINE \Software\RightFax\FaxServer and add the registry values described in the following table.

After adding the registry values, stop and start the RightFax server for the settings to take effect.

Table 5r RTI Line Registry Entries

Entry	Data type	Values	Description
ReceiveStamp FontSize	REG_ DWORD	Any decimal number (default 14)	Font size for the RTI line text.
ReceiveStamp Format	REG_SZ	Text and variables (see "Table 5s: ReceiveStamp Format Variables" on page 82.)	The text to print. This can include one or more variables from "Table 5s: ReceiveStampForm at Variables" on page 82.
ReceiveStamp Location	REG_SZ	TOP BOTTOM (default) LEFT RIGHT	Location on page to print the RTI line.
StampReceived Pages	REG_SZ	ON OFF (default)	Enable or disable the RTI line. The value for this entry must be ON to enable the RTI line.

The following table lists the variables that can be included in your RTI line text.

Table 5s ReceiveStampFormat Variables

Variable	Definition
~1	The current page number.
~2	The total number of fax pages received.
~3	The date and time that the fax was received (as reported by the fax server).
~4	The name of the fax server that received the fax (up to 30 characters).
~5	The number of the fax channel that received the fax.
~6	The fax recipient's DID number.
~7	The fax sender's caller subscriber ID (CSID).
~8	Duration of the fax transmission in minutes and seconds.
~9	The fax recipient's RightFax user ID (if applicable).
~0	The fax recipient's RightFax user name (if applicable).
~A	The unique ID assigned to the fax by the fax server. This variable is case-sensitive.
~B	The current date formatted as a two-digit year followed by three digits for the absolute day of the year. For example, "00001" means January 1, 2000. This variable is case-sensitive.
~C	The total page count on the fax server. The number is reset each day at midnight and then increments by one for each received fax page. This variable is case-sensitive.

Example The following value entered for the ReceiveStampFormat entry …

Page ~1 of ~2 received on ~3 on server ~4.

… might print as:

Page 4 of 4 received on 02-01-01 12:11:59 [US Mountain Standard Time] on server RIGHTFAX.

Troubleshooting the BoardServer module

To help track errors, all RightFax server modules can be configured to record a detailed log of program information in the Application EventLog. When a problem occurs, this should be your first source of information. Each entry will be attributed to the RightFax Server module, RightFax Database module, RightFax BoardServer module, or RightFax WorkServer module.

Error 2140 when starting the BoardServer service with Brooktrout fax boards

1. Confirm that the base I/O address and the interrupt in the Board section of the BoardServer configuration program match the physical settings on the board.
2. If the address and interrupt are configured correctly, confirm that there are no other system conflicts with those addresses.

Note *The RightFax BoardServer module must be stopped for this test to work.*

From a command line on the RightFax server, change to the RightFax\RFBoard folder and enter this command:

type faxinit.cfg

A line appears for each fax channel listing the channel's address. If the addresses do not match the ones you have entered in the BoardServer configuration program, edit the text file and fix them. After this is done, enter this command at the RightFax\RFBoard prompt:

faxinit faxinit.cfg

If the addresses are not successfully found, then they are probably conflicting with something else on your system.

3. If all of the addresses are found and you are still getting a 2140 error when starting the BoardServer module, there is probably an interrupt conflict. Confirm that the interrupt on the board matches the interrupt setting in the BoardServer configuration program. If it does, try another interrupt setting. To do this, first change the interrupt in the BoardServer configuration, and then shut down the Windows server, turn off the computer, and change the interrupt jumper on the fax board to match the BoardServer configuration. Restart the system and try to restart the service. Repeat this procedure trying different settings until the service starts successfully.

The BoardServer service is set to manual

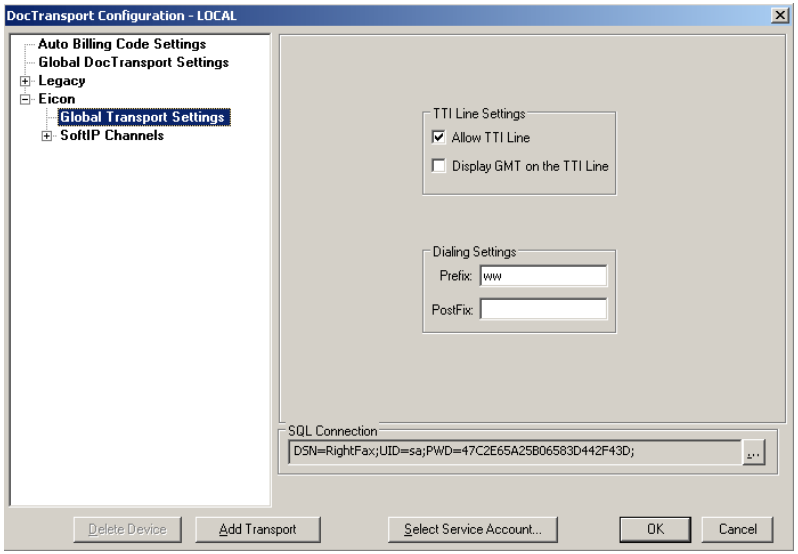
The BoardServer module is normally configured as an automatic service. If it encounters problems starting (such as configuration errors), the BoardServer service sets itself to manual. To reset the BoardServer service to automatic, fix the cause of the problem, and then restart the BoardServer module manually. On successful startup, the BoardServer module will reset itself to automatic.

Configuring Eicon Fax Boards

Eicon fax boards must be added in the DocTransport module and then configured using the board configuration tool provided by Eicon. Eicon Diva Server version 7.5 must be installed on the RightFax server or remote BoardServer computer where the Eicon boards are installed. Each Eicon board that you have added to DocTransport must be configured separately.

After you have specified the installed Eicon fax boards in DocTransport (described in "Adding transport methods" on page 48), expand the **Eicon** option in the list in the left pane and select an Eicon board in the list. This displays a set of Eicon configuration options.

Figure 5.18 The *Eicon Diva Server Configuration* options



Configuring Eicon Global Transport Settings

Eicon Global Transport Settings are global settings that apply only to the Eicon transport methods. To configure Eicon Global Transport settings, select **Global Transport Settings** in the left pane. The rest of this section describes the options on this screen.

Allow TTI Line The transmit terminal information (TTI) line is a line of text that prints at the top of each received fax page. The TTI line includes the transmitting fax machine, the date and time of the transmission, the fax page number, and the total page count.

Display GMT on the TTI Line Displays the local time relative to Greenwich Mean Time (GMT). If this option is *not* selected, the TTI line will display the local time at the fax's place of origin.

Dialing Settings Prefix This field specifies one or more dialing characters to add at the beginning of every outbound fax number dialed by the server. The default setting (WW) instructs the

Configure Eicon Click this button to run the Eicon SoftIP configuration program if necessary. However, this configuration should have been completed before enabling the SoftIP channels in RightFax.

DID settings Direct Inward Dial (DID) is a phone line service that allows inbound fax routing based on the phone number that was used to dial in to your fax server. The fax board reads a set number of digits from the phone line and compares these digits to each RightFax user's routing code. If a match is made, the fax can be successfully routed.

These settings will only affect DID-capable fax boards.

Number of Digits for Routing Specify the number of received digits to use for DID routing. This is the number of digits in each RightFax user's routing code.

Set Fax ID for all Channels You can specify a fax ID for all the SoftIP channels you add. The fax ID is transmitted by each channel to the receiving fax device. Usually, this is set to your company name or a general fax number.

Number of SoftIP Channels Select the number of SoftIP channels that you want to enable in RightFax. Eicon SoftIP and RightFax must both be licensed to support the number of channels you specify.

For more information about Eicon fax boards, see Chapter 7 of the RightFax Fax Board guide located on the RightFax server in the \RightFax\Doc folder.

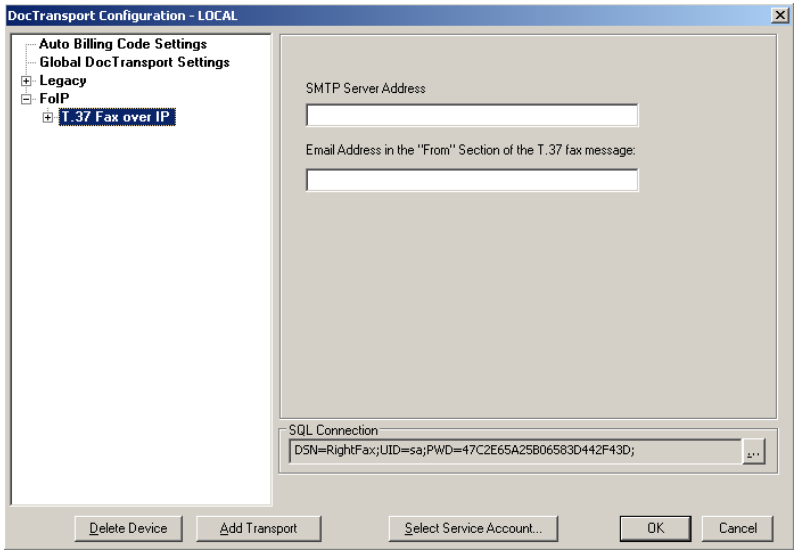
Configuring T.37 Fax over IP

T.37 fax over IP is a fax transmission protocol that allows faxes to be transmitted to T.37-compatible devices over IP, rather than dedicated fax channels. The fax is packaged as an e-mail message with a TIFF attachment and then sent over IP via an SMTP server. This message is automatically interpreted as a fax by the receiving device, which then prints it.

To send documents using fax over IP, you must create dialing rules that route the documents based on the fax numbers or e-mail addresses entered by your RightFax client for outbound faxes. For information on how to configure a dialing rule to route to a fax over IP destination, see page 204.

After you have added the T.37 Fax over IP transport method in DocTransport (described in "Adding transport methods" on page 48), expand the **FoIP** option in the list in the left pane and select **T.37 Fax over IP**. This displays the fax over IP configuration options.

Figure 5.19 The *T.37 Fax over IP Configuration* options



SMTP Server Address By default, fax over IP messages will be sent via the SMTP server that you specified during the RightFax server installation. If you did not specify an SMTP server name during installation, enter the name of the SMTP server on your network that will transmit fax-over-IP messages.

Email Address in the "From" Section of the T.37 fax message Enter the e-mail address that will be transmitted to the receiving T.37-compatible device.

Configuring Simulation Transports

The Simulation Channels transport is a set of virtual channels that allow simulated faxing. Outgoing faxes will appear to send but will not. Simulation mode can be used with no fax boards installed.

Configuring Simulation Global Transport Settings

Simulation Global Transport Settings in the DocTransport module are global settings that apply to all simulation channels. RightFax will use these settings regardless of the fax channel in use. To configure global simulation transport settings, select **Global Transport Settings** in the left pane. The rest of this section describes the options on this screen.

CD Timeout Specify the length of time, in seconds, that the RightFax server will wait for a fax answer tone (CED tone) from a remote fax machine when sending a fax.

Beeping Tells the computer in which the fax boards are installed to beep each time a call is placed or received.

Call Grouping Whenever a fax is placed in the fax queue, Call Grouping checks the queue for another fax going to the same number. If another fax to the same number is scheduled, it keeps the line open and transmits the second fax, saving the time and money of redialing and reconnecting a second time. The Call Grouping feature is only available for use with Brooktrout fax boards. This option enables the Call Grouping feature for all Brooktrout1034 and Trufax-series fax boards.

Maximum Grouping This field specifies the maximum number of pages (1-256) that the fax server will send to one phone number before hanging up and sending another set of faxes.

Dialing Settings Prefix This field specifies one or more dialing characters to add at the beginning of every outbound fax number dialed by the server. The default setting (WW) instructs the fax boards to automatically detect a dial tone before dialing. For a list of valid dialing characters, please see page 201, of the *Administrator's Guide*.

Dialing Settings Postfix This field specifies one or more dialing characters to add at the end of every outbound fax number dialed by the fax server. For a list of valid dialing characters, please see page 201, of the *Administrator's Guide*.

Configuring Simulation Channels

Set Fax ID for all Channels You can specify a fax ID for all the channels on this fax board. The fax ID is transmitted by each channel to the receiving fax machine. Usually, this is set to your company name or general fax number.

Capability Sets the capability (dial-only, answer-only, or both) for this channel.

Set Transmission Rate for all Channels You can specify a simulated baud rate for all simulated fax channels. Simulated baud rates range from 9600-33600.

Number of Simulation Channels You can specify simulated fax channels. Simulated channels range from 1-120.

Activate Channel Activates this channel for use by RightFax. To deactivate the channel, click to clear this check box.

Fax ID Specify the fax ID for this channel only. The fax ID is transmitted to remote fax machines to identify the sender. Usually, this is set to your company name or general fax number. This box will not be available if you selected the **Set Fax ID for all Channels** check box in the **Simulation Channels** configuration.

Capability Sets the capability (dial-only, answer-only, or both) for this channel. This box will not be available if you selected the **Set Capability for all Channels** check box in the **Simulation Channels** configuration.

Transmission Rate Sets the simulated baud rate for all simulated fax channels. Simulated baud rates range from 9600-33600. This box will not be available if you selected the **Set Transmission Rate for all Channels** check box in the **Simulation Channels** configuration.

Max. Pages Channel may Send Sets the maximum number of pages per fax that can be sent by this channel, from 0 to 999 (up to 1000 pages per fax). This lets you reserve channels for smaller size faxes only.

Timed ability This feature changes the capability (send-only, answer-only, or both) of the fax channel at defined times. For example, you can set a channel to answer-only during business hours, and then switch it to both dial and answer after hours so it can be used for broadcast faxing in the evening.

You can define up to three time periods. Times are indicated in 24 hour military time ("0000" represents midnight, "1200" represents noon, and "1730" represents 5:30 p.m.).

Start Specify the beginning of the time period. The first time period always has its **Start** time set to "0000" (midnight).

End Specify the end of the time period. You must always specify the end time of the last time period as "2359".

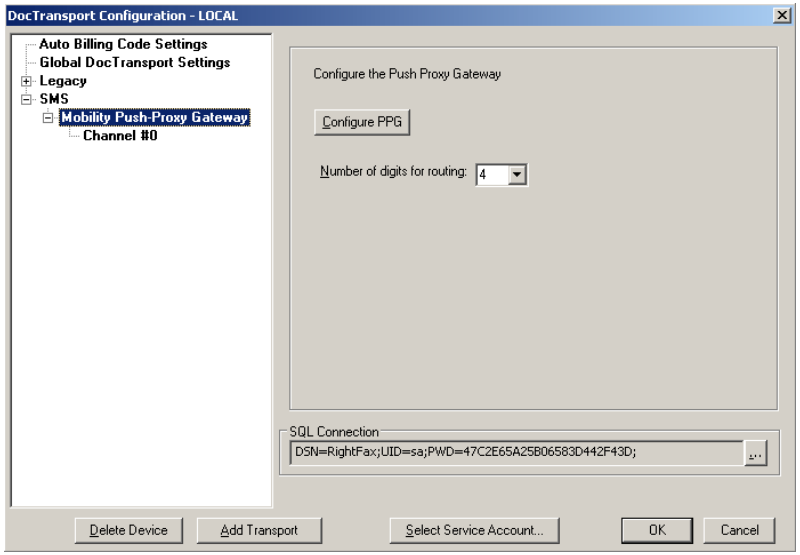
Capability Sets the capability (dial-only, answer-only, or both) for this time period.

Configuring SMS via the Push-Proxy Gateway

Short message service (SMS) is a communication protocol that lets you send and receive short text messages to and from SMS-compatible devices such as a cell phone. The RightFax server can be configured to send fax notifications and alerts to SMS numbers. RightFax clients can also send and receive SMS messages. Because SMS is a text-only protocol, sent SMS messages include only the notes added to the fax cover sheet. You can also create dialing rules that automatically route outbound faxes to SMS numbers. SMS functionality requires that you have installed the RightFax Push-Proxy Gateway on the server running the DocTransport service.

After you have added the SMS transport method in DocTransport (described in "Adding transport methods" on page 48), expand the **SMS** option in the list in the left pane and select **Mobility Push-Proxy Gateway**. This displays the SMS configuration options.

Figure 5.20 The *SMS Configuration* options



Configure PPG Runs the Push-Proxy Gateway configuration program. For information on completing these configuration options, refer to the *RightFax Push-Proxy Gateway Guide*.

Number of Digits for Routing When the RightFax server receives an incoming SMS message, it can route the message to one or more mailboxes. Each RightFax mailbox (user ID) has a unique routing code. SMS mailboxes should be configured to use routing codes based on the phone number that the message was

sent to, typically the last three or four digits of the number. Enter the number of digits that will be read from the end of the receiving phone number that will be used for routing SMS messages.

Running DocTransport and BoardServer Services on Remote Computers

Note *One RightFax Enterprise server can support a total maximum of 16 separate BoardServer modules.*

With the RightFax Enterprise server, you can install and run multiple DocTransport and BoardServer modules simultaneously on the local and one or more remote computers. This distributes the workload of the RightFax server across several computers and provides expanded channel capacity and system redundancy.

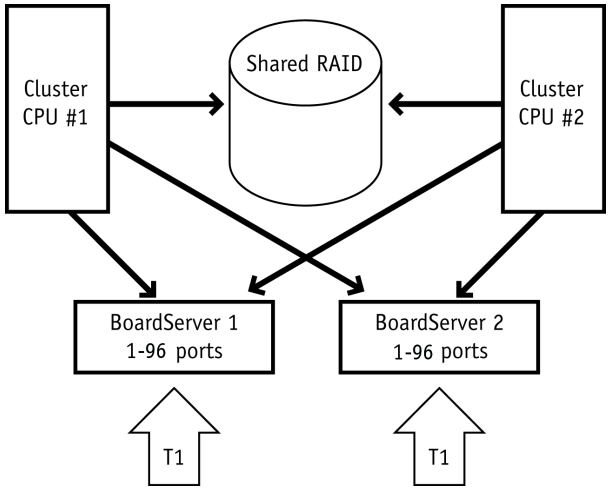
Caution *While running DocTransport and BoardServer modules over a WAN is a supported configuration, it is important that sufficient bandwidth is available across the network to allow the DocTransport, BoardServer, and RightFax server to communicate efficiently. Insufficient bandwidth when running remote DocTransport/BoardServer modules across a WAN may result in timeout errors causing both inbound and outbound documents to fail.*

When the RightFax server is configured to run one or more DocTransport/BoardServer modules remotely, the workload of faxing is divided between multiple computers. The RightFax server computer can remain dedicated to database management and WorkServer operations, while the remote DocTransport/BoardServer computers handle all the work relating to sending and receiving faxes.

Because the fax boards can be distributed between several computers, your ability to expand your system's fax channel capacity is virtually unlimited using remote DocTransport/BoardServer modules.

Also, running remote DocTransport/BoardServer modules allows for system redundancy. If a hardware or phone line failure occurs, fax traffic can be automatically routed to other available DocTransport or BoardServer modules quickly and with no interruption of service. In addition, remote DocTransport/BoardServer modules let you make the most out of redundant hardware in clustered server configurations, as in the following diagram.

Figure 5.21 Remote DocTransport/BoardServer Modules in a Clustered Environment



The ability to install multiple DocTransport/BoardServer modules is available in RightFax Enterprise servers only.

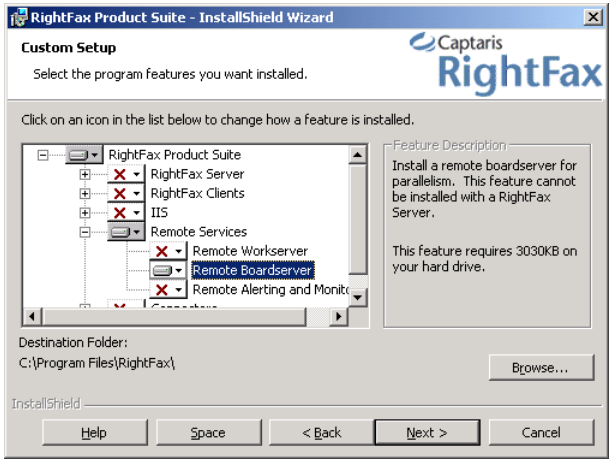
To install the DocTransport and BoardServer services on a Remote Computer

Important *Because they are not located on your RightFax server computer, remote DocTransport/BoardServer modules cannot prevent you from exceeding your RightFax channel licenses. You must manage the number of activated channels across all the DocTransport and BoardServer modules, and do not attempt to activate more channels than your organization has licensed. The RightFax Server module service will shut down if the total number of channels on all DocTransport and BoardServer modules exceeds your total number of channel licenses.*

Caution *If you have changed the default DSN for the SQL connection on the main RightFax server, you must manually change the DSN on the remote BoardServer computer to match the DSN on the server.*

1. If you have not already done so, create a share of the RightFax folder on the fax server computer named “RightFax”. You must add at least one NT account that has both read and write access to this share.
2. Install the fax boards into the remote DocTransport/BoardServer computer. This computer must conform to the same hardware and software specifications as a RightFax server (described in the *RightFax Installation Guide*).
3. Log on to the remote computer using an NT account with read and write access to the shared RightFax folder on the fax server. This account must also have permission to modify the registry of the RightFax server
4. Insert the RightFax server CD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the CD and run AutoRun.exe.
5. In the menu of install options, select the option to install the RightFax product suite. The RightFax install wizard opens.
6. Click **Next** at the opening screen to view the RightFax license agreement. You must accept the license agreement in order to continue the installation. Click **Next**.
7. Enter your name, organization name, and your product serial number when prompted. Your product serial number is printed on a label attached to the product box. Click **Next**.
8. On the **Setup Type** screen, select **Custom** and then click **Next**.
9. Expand the tree of install components. Remove the install option for all components except **Remote Boardserver** under **Remote Services**. Click **Next**.

Figure 5.22 The Remote DocTransport/BoardServer install option



10. When prompted for a RightFax server name, enter the name of the server that you want to connect to. Click **Next**.
11. Click **Install**.
12. When the installation is complete, install the fax board drivers according to the instructions in the *RightFax Installation Guide*.
13. Finally, complete the DocTransport and BoardServer configuration programs according to the instructions in this chapter.

■ ■ ■

Chapter 6

Configuring RightFax Conversion

By default, the RightFax server uses its standard conversion engine to generate fax images from document file attachments. These are files passed to the RightFax server in their original format (such as Word, Excel, or PowerPoint) instead of first being converted to printer output. Document attachments are typically delivered to the RightFax server via one of the e-mail gateway modules (as mail message attachments) or via RightFax Web Access.

While the standard RightFax conversion engine has some advantages (such as being very fast and efficient), there are occasionally variances between the fax image it generates and the original document. In most cases these variances are minor and acceptable. However, if the conversion quality of faxed file attachments is unacceptably low, your RightFax servers can be configured so that the applications associated with certain file formats are launched to allow for direct (and therefore more accurate) conversion by attachments' native applications. This is known as "server-side application conversion."

Note *Server-side application conversion is not used for documents that are printed directly from the native applications to the RightFax print-to-fax driver. This is because the conversion is handled by the native application on the client computer before it is sent to the RightFax server.*

Understanding Server-Side Application Conversion

Where possible, server-side application conversion supports multiple concurrent document conversions to save processing time and server resources. Also, blank pages are removed from the fax image to save on fax costs and channel resources.

Server-side application conversion is available when faxing from:

- Windows 2000 and Windows XP desktops using the Send To shortcut menu.
- File attachments sent via the Exchange, SMTP, and Lotus Notes e-mail gateways.
- Files attached with the <ADDDOC> embedded codes.
- The RightFax API and COM API.

Launching an application at the RightFax server each time a file attachment fax image is generated has some potential drawbacks. You should weigh these drawbacks against the benefits before configuring your RightFax server to perform server-side application conversion.

Full applications are much larger and more processor-intensive than the standard RightFax conversion engine. You may need to upgrade the RightFax server memory or processing capacity to support server-side application conversion, especially if your organization generates a lot of faxes with attached files.

Also, most applications are not designed to be run completely without user intervention. Situations may arise in which an application stops while it waits for user input (such as waiting for a password). RightFax makes every attempt to prevent or bypass such occurrences but cannot guarantee it will prevent all such occurrences. If one or more faxes being processed through server-side application conversion fail to send, you should check that the application on the server is not stalled and waiting for attention.

Finally, documents containing objects that the server does not have access to (such as special fonts, links to files on other computers, macros, or templates) may generate unpredictable results, such as incorrect fax image output or conversion failure. To minimize this, install as many TrueType fonts, document templates, macros, and other components used by your organization to the computer or computers that provides server-side application conversion.

If server-side application conversion does not succeed in creating a fax image, RightFax will use its built-in conversion engine to create the fax.

Description of the Captaris Conversion Engine

The Captaris Conversion Engine is a stand-alone, fault tolerant service that is used to invoke those applications commonly used in server-side application conversion. These applications will be used to convert their associated file types when installed on the RightFax server and remote WorkServers. Listed below are the applications supported by the Captaris Conversion Engine:

- Microsoft Word, versions 2000 through 2003.
- Microsoft Excel, versions 2000 through 2003.
- Microsoft PowerPoint, versions 2000 through 2003.
- Microsoft Internet Explorer 6 and above.

To enable the RightFax server to perform server-side application conversion, install the applications on the RightFax server and any computers running remote WorkServers (see "Installing WorkServers on Remote Computers" on page 45). RightFax detects when one of the supported file types is passed to the server as a file attachment and launches the appropriate application to convert the file.

Installing and Configuring Office Applications

On each of your RightFax servers and any other computers where RightFax WorkServers will be executed, follow these guidelines to install the Microsoft Office Word, Excel, and PowerPoint applications (versions 2000 through 2003), for server-side application conversion.

1. If you have already installed Word, Excel, or PowerPoint on the RightFax server, uninstall those applications using Add/Remove Programs in Control Panel.
2. If you are installing Office XP or 2003 applications, the security for macros in Office must be set to the lowest setting.
3. On the RightFax server, insert the Office installation CD and run Setup.exe. During the installation, select the following options.

Table 6a Installing Office

Installation option	Select this
Destination folder	Default destination
Installation type	Custom installation
Components to install	Excel Word PowerPoint Office Tools Converters and Filters
Office Tools	Microsoft TrueType fonts

Table 6a Installing Office (Continued)

Installation option	Select this
Converters and Filters Text Converters	Select all of the options except converters for use with Lotus Notes
Graphics Filters	Select all
Microsoft Excel	Select the Microsoft Excel program files, spreadsheet converters, and Help
Spreadsheet Converters	Select all
Microsoft Word	Select the Microsoft Word program files, text converters, and Help
Text Converters	Select all
Microsoft PowerPoint	Select the Microsoft PowerPoint program files, presentation translators, and Help

4. When the installation is complete, restart Windows.
5. If you have installed Microsoft Office 2003, you must activate the software either through the Internet or by calling Microsoft. In addition, each Office 2003 application that you have installed must be launched on the server and then closed so that any additional setup requirements at the user profile level can be completed. Both of these steps must be completed for Office 2003 or server-side application conversion will fail.
6. Microsoft recommends that you re-install the latest service pack for your Windows software after installing any Office applications. After this final step is complete, your Office applications may require some configuration to ensure that server-side application conversion works properly. Refer to the following pages for information:
   - "Configuring Word" (described on page 93).
   - "Configuring Excel" (described on page 93).
   - "Configuring PowerPoint" (described on page 94).

Configuring Word

Running the Exchange Events service on the RightFax server will cause server-side application conversion through Word to fail. If you must run Exchange Server on the same computer as your RightFax server, you must disable the Exchange Events service.

Server-side application conversion through Word 2000–2003 converts these file types:

- Word for Windows (versions 2, 6, 7, 97, 1J, 5J, 97–2003)
- RTF (rich text format)
- Word for DOS (versions 4, 5, and 6)
- Word for Macintosh (versions 3, 4, 5, 6, and 97)

Password-protected Word files will not be converted with the exception of Outlook or Lotus Notes file attachments where the Outlook or Notes client has had the correct password provided in the Document Conversion options (described in the *RightFax Gateway for Microsoft Exchange Guide* and *RightFax Gateway for Lotus Notes Guide*.)

Configuring Excel

Server-side application conversion renders whatever print area is defined in the Excel Workbook.

Server-side application conversion through Excel 2000–2003 converts these file types:

- Excel for Windows (versions 3, 4, 5, and 97–2003)
- Excel Workbook (versions 3 and 4)
- Excel for Macintosh (versions 4 and 5)
- Excel Workbook for Macintosh (version 4)

Password-protected Excel files will not be converted with the exception of Microsoft Outlook or Lotus Notes file attachments where the Outlook or Notes client has had the correct password

provided in the Document Conversion options (described in the *RightFax Gateway for Microsoft Exchange Guide* and *RightFax Gateway for Lotus Notes Guide*.)

Configuring PowerPoint

Server-side application conversion through PowerPoint 2000–2003 converts these file types:

- PowerPoint for Windows (versions 3, 4, 7, and 97–2003)
- PowerPoint for Macintosh (versions 3, 4, B3, and B4)

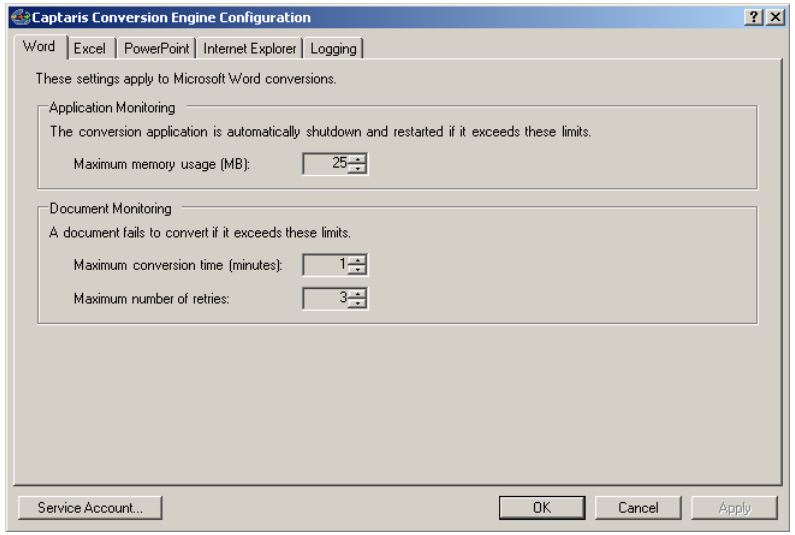
Print options for creating the fax images are set by the user in each PowerPoint presentation, using the **Print** tab in the **PowerPoint Options** dialog box.

Configuring the Captaris Conversion Engine

To configure the Captaris Conversion Engine, open the Windows Control Panel and double-click the Captaris Conversion applet. This will open the **Captaris Conversion Engine Configuration** dialog box (below).

Note *The Captaris Conversion Engine cannot be administered remotely.*

Figure 6.1 The Captaris Conversion Engine Configuration dialog box.



Note *After the initial opening of the Conversion Engine from the Windows Control Panel and clicking OK, you will subsequently be able to open the Captaris Conversion Engine applet from Enterprise Fax Manager by double-clicking the service or by right-clicking and choosing Configure Service.*

Logging The Logging tab provides control of the types of messages that will be logged by the Conversion Engine. You can select different categories of messages and set each to a different logging level. The log output normally goes to the Windows Event

Log, except when the service is running in Diagnostics (debug) mode, in which case the messages go to a separate diagnostics window.

Service Account The **Service Account** button along the bottom of the applet is used to select the Windows account under which the Conversion Engine will run. This account must be the same account used to run the RightFax WorkServer modules.

Important *If a password is specified for the service account, the password is only retained until the control panel closes. It is not saved.*

Configuring Server-Side Application Conversion for Microsoft Visio

RightFax supports Visio versions 5.x, 2000, and 2003. Server-side application conversion of Visio documents (files with a .VSD extension) is performed by the RightFax WorkServers. Follow the steps below to implement server-side application conversion for Visio documents.

Installing Visio

On each of your RightFax servers and any other computers where RightFax WorkServers will be executed, follow these guidelines to install Visio for server-side application conversion.

During the installation, select the following options.

Table 6b Installing Visio

Installation option	Select this
Setup type	Custom/Complete
Destination folder	Default destination
Select components	Program files and graphic filters

When the installation is complete, restart Windows.

To configure automatic timeout on a failed conversion

If, for any reason, Visio server-side application conversion fails, you can configure RightFax to automatically timeout, stop the conversion, and set the fax status to “conversion failed.”

1. On the RightFax server, stop all WorkServer services.
2. Edit the Windows Registry on the RightFax server.
3. For each WorkServer number (\Worksrv#) add a REG_DWORD value called KillServiceTimeout to HKEY_LOCAL_MACHINE\Software\RightFax\Workserver \Worksrv# and set the data value to the length of time you want server-side application conversion to attempt conversion before timing out, in milliseconds (i.e., set the data value to 600000 for 10 minutes).
4. Restart the services.

To have the WorkServers recover after being stopped by this new feature, open the Windows Control Panel and select **Administrative Tools > Services > RightFax WorkServer** and go to the **Recovery** tab to select the service's response to the shutdown.

Controlling Visio Server-Side Application Conversion

To control how and when Visio server-side application conversion is used for specific document types, edit the Windows registry and add the REG_MULTI_SZ registry value “NativeDocControl” in HKEY_LOCAL_MACHINE\Software\RightFax\WorkServer \WorkSrv# (where # is the WorkServer number to modify.)

The setting for this value is one or more lines each controlling a specific document type in the format:

DocType,*Action*

Where *DocType* is the Visio document (VSD) to control, and *Action* specifies how the document type should be handled. The following table lists the actions you can specify.

Table 6c NativeDocControl Actions

Value	Action
1	Attempt to convert the document using the native application on the server. If this fails because the application is not installed, because the application cannot be started, or because the application returns an error, then attempt to convert the document using the built-in RightFax conversion engine.
2	Only attempt to convert the document using the native application on the server. If this fails for any reason, abort the fax.
3	Attempt to convert the document using the built-in RightFax conversion engine. If this fails for any reason, abort the fax.
4	Do not attempt to convert this type document. Conversion will fail.
5	Attempt to convert the document using the built-in RightFax conversion engine. If this fails, attempt conversion with the native application.

Example NativeDocControl value setting:

VSD,2

Word-wrap for Text Attachments

Text attachments that contain long lines of text can potentially be truncated. The steps below outline how to configure RightFax to word-wrap text attachments.

1. Edit the Windows Registry on the RightFax server.
2. For each WorkServer number (\Worksrv#) add a REG_DWORD value called WordWrapTextLength to HKEY_LOCAL_MACHINE\Software\RightFax\Workserver \Worksrv# and set the data value to the desired character length (i.e., 150 will word-wrap anything over 150 characters).
3. Open the RightFax WorkServer Module.
4. Configure all RightFax WorkServers to use the option '**Use PCL Converter for Text Files**'.
5. Click **OK t**o restart the WorkServer Modules.

▪ ▪ ▪

Chapter 7

Enabling and Using the Captaris Sync Module

RightFax maintains a database of users. This database defines each user's RightFax-specific contact information, logon information, preferences, and permissions. With the Captaris Sync Module, it is possible to import and synchronize this information in real-time or at definable intervals from Microsoft Active Directory or from any LDAP *(Lightweight Directory Access Protocol)* compliant data source.

User synchronization is not bi-directional. Meaning only the RightFax database is updated. The synchronization source is not modified.

Description of the Captaris Sync Module

The Captaris Sync Module is an XML/XSLT based tool that allows RightFax administrators to create and synchronize users from Active Directory (domains, groups, and organizational units) and LDAP compliant data sources.

Configuration of the Captaris Sync Module is initially done via a Windows Control Panel applet. Subsequent access to the Sync Module configuration can be obtained via Enterprise Fax Manager where it is listed with the other RightFax services.

Features

- Synchronization data is not stored in Active Directory and therefore schema changes are not required.
- XML-based transform files replace previous VB script architecture.
- Multiple domains are supported.
- LDAP support.
- Robust and convenient real-time logging and diagnostics are available.
- Nested groups are not automatically included when synchronizing from parent groups.
- Synchronization is managed as a standalone service.

Upgrading from Workserver Active Directory Synchronization

After you upgrade from RightFax 8.7 or 9.0 Active Directory Sync, the settings for domains, organizational units, groups and profiles are not imported and cannot be viewed in RightFax. To view or print these settings, you must install the *Active Directory Sync Settings Helper Utility*.

Viewing and Printing Active Directory Sync Settings with the Active Directory Sync Settings Helper Utility

Run the Active Directory Sync Settings Helper utility on each RightFax Server that is configured with one or more Workserver modules that perform Active Directory synchronization.

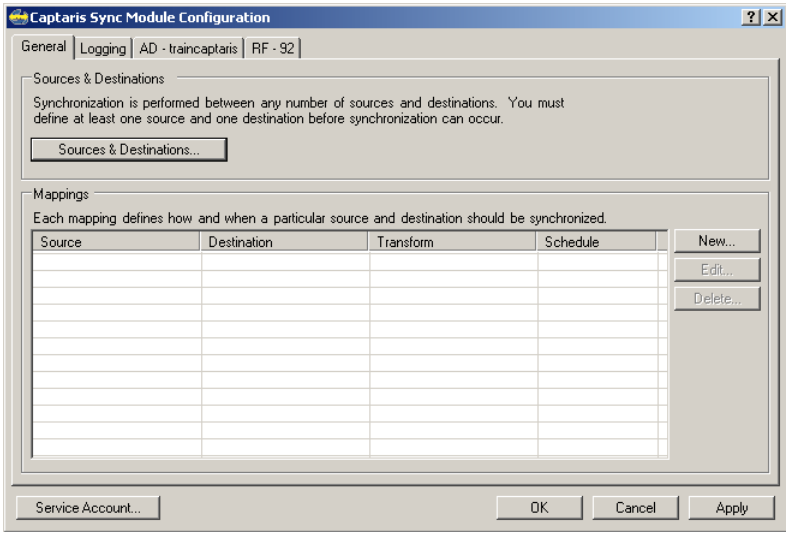
1. Insert the RightFax Product Suite CD.
2. Navigate to the folder \RightFax\Support and run **AdSyncSettingsViewer.exe**.
3. The settings used by the Active Directory Sync will appear in the Active Directory Sync Settings viewer.
4. **Save** and **print** the file.

Configuring the Captaris Sync Module for Active Directory Synchronization

Open the Windows Control Panel and double-click the Captaris Sync Module applet. This will open the **Captaris Sync Module Configuration** dialog box (below).

Note *The Captaris Sync Module cannot be administered remotely.*

Figure 7.1 Captaris Sync Module Configuration Dialog Box



Note *After the initial opening of the Captaris Sync Module from the Windows Control Panel and clicking OK, you will subsequently be able open the Captaris Sync Module applet in Enterprise Fax Manager by double-clicking the service or by right-clicking and choosing Configure Service.*

The **Service Account** button along the bottom of the applet is used to select the Windows account under which the Captaris Sync Module will run. If synchronizing with Active Directory, this account must be a member of the Active Directory Domain Users group. If

you configure the Captaris Sync Module to detect deleted users in Active Directory, corresponding RightFax users will also be deleted. In order to use this function the service account must be a member of the Domain Admins group.

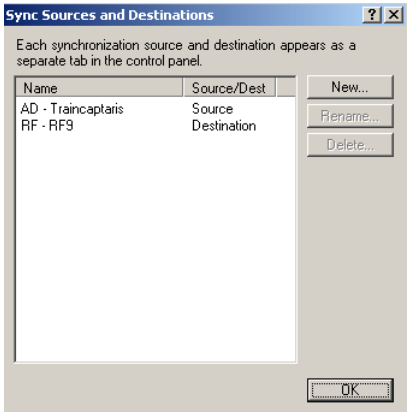
Important *If a password is specified for the service account, the password is only retained until the control panel closes. It is subsequently saved an encrypted registry entry.*

Sources and Destinations are terms used to describe the Active Directory you are synchronizing from (source) and the RightFax server you are synchronizing to (destination). Each the source and destination will be represented in the Captaris Sync Module applet by its own tab. There is no limit to the number of sources and destinations you can define. After defining at least one source and one destination, you can define a mapping between them. A mapping associates Active Directory attributes with RightFax attributes. For example, in the properties of each Active Directory user you will find a Telephones tab > Fax Number field. In this field is the users fax number (e.g., 555-1212). By default the Captaris Sync Module will take the last four digits of this number and place it in the 'Routing Code' field of each RightFax user. Controlling how this and other data will be transformed can be done using the transform file and the RightFax user template (described below).

To Define a Source and Destination

1. Select the **Sources & Destinations** button.
2. Using the drop-down menu select your source (Active Directory) followed by your destination (RightFax).
3. The source and destination should now be displayed in the **Sync Sources and Destination** window (below). Click **OK**.

Figure 7.2 The Sync Sources and Destinations Dialog Box



Creating Mappings

Mappings define how and when sources and destinations are synchronized. You can define as many mappings as you need and previously defined sources and destinations can be used in more than one mapping. This allows, for example, a single Active Directory source to be synchronized into two different RightFax servers, or two different sources to be synchronized to a single RightFax server.

To Create a New Mapping

1. Select the **New** button.
2. Choose your **Source** and **Destination** using the drop-down arrows.

3. In the **Sync Mapping** window browse to the '\RightFax\Shared Files\Sync\Config folder and select the **Transform File** that is relevant to your environment. The Transform File is responsible for transforming the data generated by the source into an XML file that is translated by the destination. Together with the RightFax User Template (described in the **Destination** section), this file can be edited to create a custom synchronization template that fits the needs of your environment.
4. Select the synchronization schedule option that best suits your environment.
5. Click **OK**.

Source Settings The **Source** tab (*AD- Domain*) provides administrators the ability to configure settings associated with the Active Directory source. This tab also contains three sub-tabs (**Filters**, **Output**, and **Special**). Each of these is explained below

Filters Filters are a set of parameters used by the Captaris Sync Module to determine which users are synchronized from Active Directory into RightFax. For each set of users you must choose a corresponding domain followed by optional OU's or groups to limit which users are included (at least one OU or group is required). You may also choose to exclude users that are in certain groups. If you do not assign a filter, synchronization will not occur.

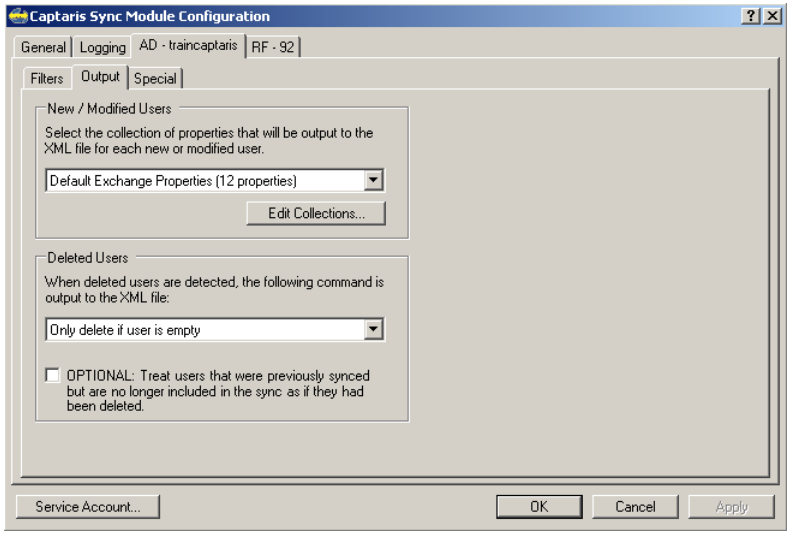
To Create a New Filter

1. Select the **New** button.
2. In the **Define Filter** window, browse to your Domain and click **OK**.
3. If desired, browse and select Organizational Units (OU) by placing a check box next to each OU. OU's that have been validated by the Sync Module will possess a grey underline. Those that cannot be validated will possess a red underline.
4. If desired, add an include group(s).
5. If desired, add an exclude group(s).
6. Click **OK**.

Important *When synchronizing with Active Directory, nested groups and OU's are NOT automatically included. This allows for finer control of which groups and/or OU's are and are not included. Also note that when browsing for a group that resides in a child domain, you must change the Windows browser to point to the child domain you are attempting to browse to. By default the Windows browser will select the parent domain for directory searches. Use the Locations button to browse and select the correct domain.*

Output The **Output** tab allows you to specify the output data for each new, modified or deleted Active Directory user that is found during a synchronization event. This data will then be transformed by using the transform file from the Active Directory format into a format suitable for the destination (RightFax).

Figure 7.3 The Output Tab Dialog Box



For **New/Modified Users**, you can select any number of Active Directory properties, as long as the property can be represented as a text string. Two predefined property collections are available **Default Windows Properties** and **Default Exchange Properties**. These contain typical properties for use with Windows and Exchange users, respectively.

The **Deleted Users** section allows you to control how RightFax will treat those users who have been deleted from Active Directory. By default, the user is only deleted if it is empty, which is defined as without any documents or phonebook entries. Other options are to always delete users or to never delete users.

Warning *Combining the option to "Treat users that were previously synced but are no longer included in the sync as if they had been deleted" with "Always delete user" can result in a large-scale deletion of users and their faxes. Use with extreme caution.*

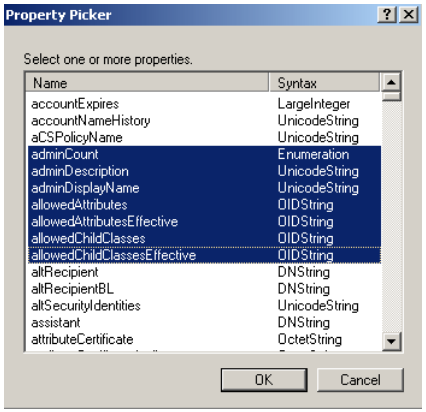
Property collections can be managed by highlighting a collection, followed by clicking the **Edit Collections** button.

The two property collections that are shipped with RightFax cannot be modified. You can however select the **Copy** button to create an editable copy of either.

New collections are defined by assigning a name and then choosing one or more properties that will belong to the collection.

Properties are selected using the **Property Picker** dialog box. One or more properties can be selected at a time

Figure 7.4 The Property Collection Dialog Box

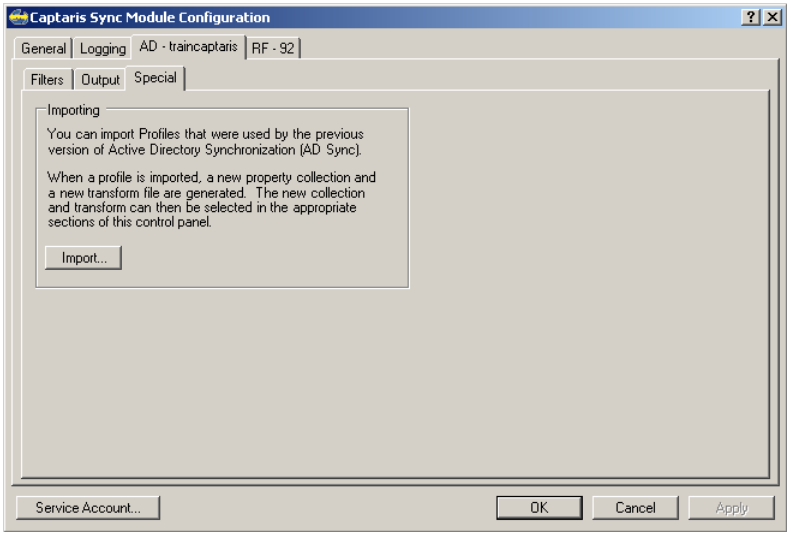


Special With the previous Active Directory Synchronization module you had the option of creating custom VB script based profiles. If you have created custom profiles, they can be imported as XSLT files and subsequently available as a **New/Modified Users** collection property.

Do be aware however that most of functions that previously required VB script are now easily accomplished using the XSLT transform file ('\RightFax\Shared Files\Sync\Config\Default Active Directory to RightFax.xsl') and the RightFax User Template (described in the **Destination** section) thus importing previous profiles may not be necessary.

Important *Due to significant architectural differences between VB script and XSLT, previously built custom profiles will likely require further editing to map VB attributes to XSLT attributes.*

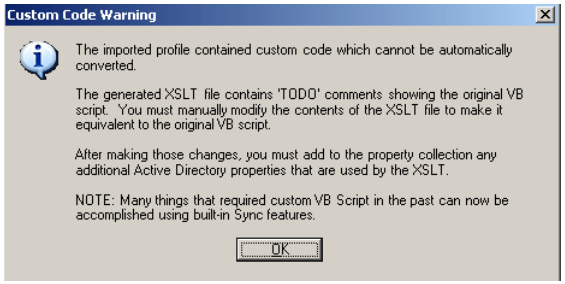
Figure 7.5 The Special Tab Configuration Dialog Box



To Import a VB Script Profile

1. Select the **Import** button.
2. In the **Import Profile** window, select your custom profile and click **OK**.
3. Save the file to the \RightFax\Shared Files\Sync\Config folder.
4. Select the property collections you'd like imported with the profile and click **OK**.
5. If your custom code contains 'TODO' comments you will receive the warning below. Click **OK**.

Figure 7.6 The Custom Code Warning Dialog Box



Destination Settings The **Destination** tab (*RF- RightFax Server*) provides administrators the ability to configure settings associated with the RightFax server destination. This tab also contains two sub-tabs (**Servers** and **Users**). Both of these are explained below.

Server The **Server Name** field is where the RightFax (destination) server name is entered.

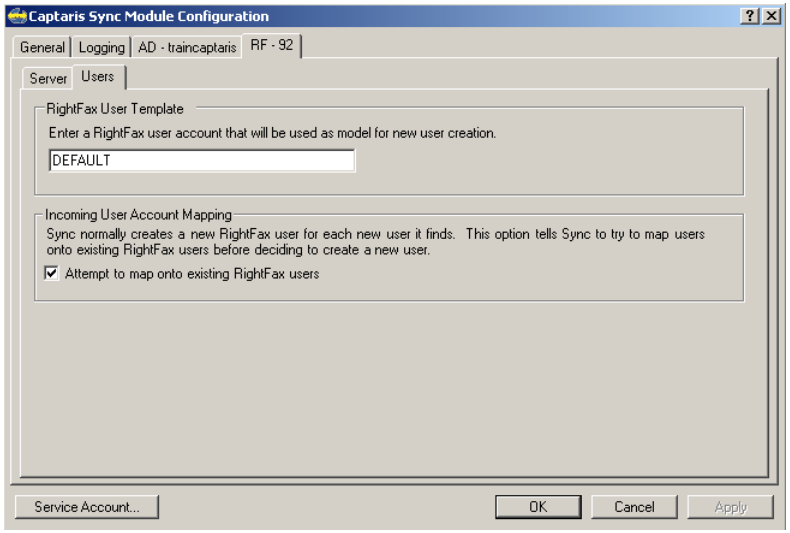
The **RightFax Account** determines which account will be used when the Sync Module needs to access the RightFax server. Since the Sync service can create and delete users, this account must have “Administrative Access” permission. It is recommended that a new account be created specifically for use by the Sync service. Further, it is recommended that the account be set to NT authenticate to the Windows account under which the Sync service runs (see above).

Important *If a password is specified for this account, the password is saved in the RightFax server's registry in an encrypted form. If you wish to avoid this, use the NT authentication technique described above.*

Users Enter a RightFax user account that will be used as model for new user creation. New users will inherit all settings associated with the specified user. You can set up multiple RightFax/Destination profiles, each which a different model user. This allows for all manner of customization, such as having different users synchronized into different RightFax groups, or with different RightFax permissions and so on.

Note *This feature can be used to easily implement functionality that was performed using custom VB script in the previous Active Directory Synchronization module.*

Figure 7.7 The User Tab Configuration Dialog Box

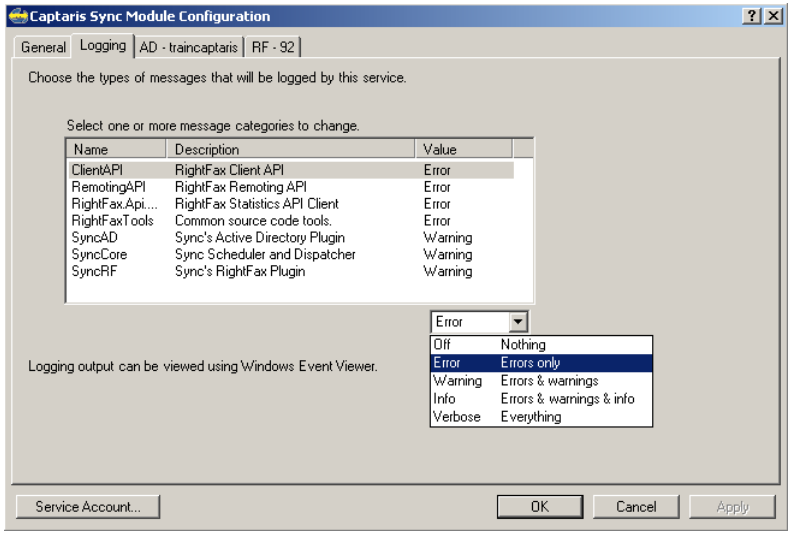


Troubleshooting

The RightFax Sync Module provides administrators with convenient and customizable real-time logging and troubleshooting tools.

Logging The **Logging** tab allows RightFax administrators to control the types of messages that will be logged by the Sync Module. Each of these messages can be customized using categories and a corresponding logging level. By default all output is written to the Windows Event Logs, except when the service is running in diagnostics (debug) mode, in which case the messages are displayed in real-time via the diagnostics window.

Figure 7.8 The Logging Tab Configuration Dialog Box



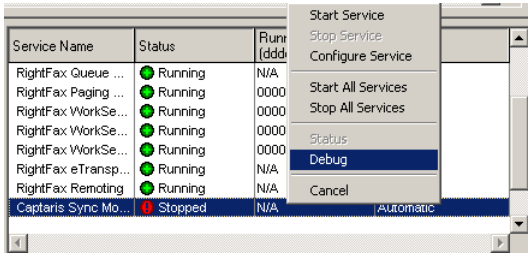
Diagnostics

Like all RightFax services, the Sync Module can be run in 'debug' mode. Using the Sync Module in this mode provides RightFax administrators with robust real-time monitoring, logging, and troubleshooting via a new diagnostics window. From this window it is possible to customize the trace (logging) level, group by processes, and save the output to an RTF or TXT file. Errors and warnings are also displayed in different colors, making it easier to pick out problems. The diagnostics window also allows the service to be started, stopped, paused and resumed, all without leaving the window.

To run the Sync Module in debug mode

1. Open EFM and browse to the services view in the lower-right corner.
2. Right-click the RightFax Sync Module and choose **Stop**.
3. When the service has stopped, right-click the service and select **Debug**. This will launch the **Diagnostics** window.

Figure 7.9 The Debug option, available when right-clicking the Captaris Sync Service from Enterprise Fax Manager

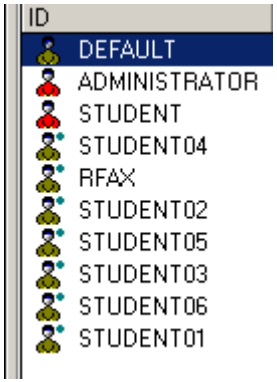


Changes made to the Sync Module control panel when running in debug mode will not be reflected in the diagnostics windows until re-launched. Also note that when running the Sync Module in debug mode it is possible to restart the service by clicking **OK** in the Sync Module Control Panel applet. Setting the service that runs the Sync Module (CapaSync.exe) to manual will prevent this problem, however, this is only recommended when performing complex debug associated troubleshooting.

Verifying User Synchronization

Users that have been created via the Sync Module are displayed in Enterprise Fax Manager with a corresponding green bullet next to their user icon. Users who do not display this marker have not been updated or created via the Sync Module.

Figure 7.10 Users created via the Captaris Sync Module as displayed in Enterprise Fax Manager



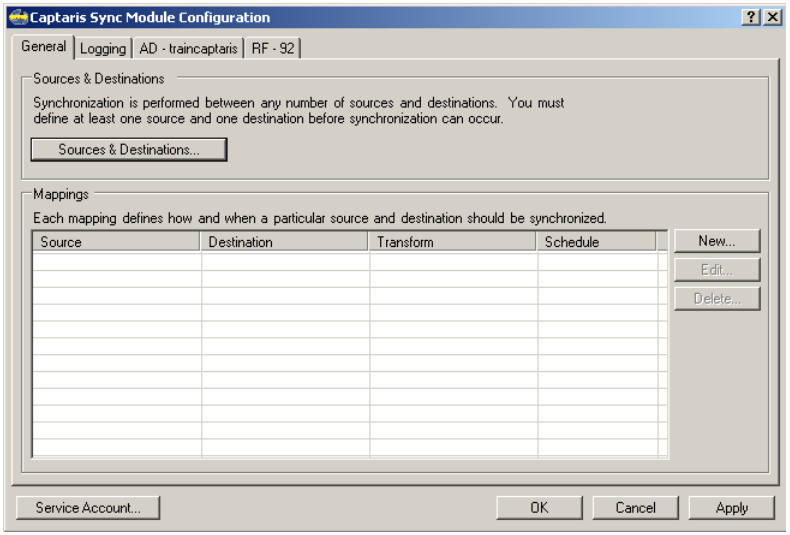
Configuring the Captaris Sync Module for LDAP Synchronization

Lightweight Directory Access Protocol or LDAP is a standardized Internet protocol that E-mail and other programs use to look up information from a server. These LDAP servers may contain directory-like contact information such as a contact name, e-mail addresses, and fax numbers. The Captaris Sync Module can extract, import, and synchronize data of this type from any LDAP compliant data source into your organizations RightFax servers.

These instructions assume you have a pre-configured LDAP server available to accept LDAP connections and possesses a functional LDAP data source.

Open the Windows Control Panel and double-click the Captaris Sync Module applet. This will open the **Captaris Sync Module Configuration** dialog box (below).

Figure 7.11 Captaris Sync Module Configuration Dialog Box



Note *After the initial opening of the Captaris Sync Module from the Windows Control Panel and clicking OK, you will subsequently be able open the Captaris Sync Module applet in Enterprise Fax Manager by double-clicking the service or by right-clicking and choosing Configure Service.*

The **Service Account** button along the bottom of the applet is used to select the Windows account under which the Captaris Sync Module will run. This account should have permission to run the Sync Module service on the RightFax server.

Important *if a password is specified for the service account, the password is only retained until the control panel closes. It is subsequently saved an encrypted registry entry.*

Sources and Destinations are terms used to describe the LDAP source you are synchronizing from (source) and the RightFax server you are synchronizing to (destination). Both the source and destination will be represented in the Captaris Sync Module applet by their own tab. There is no limit to the number of sources and destinations you can define. After defining at least one source and one destination, you can define a mapping between them. A mapping associates LDAP attributes with RightFax attributes. For example, in the properties of each LDAP user you will usually find a Fax phone field. In this field is the users fax number (e.g., 555-1212). By default the Captaris Sync Module will take the last four digits of this number and place it in the 'Routing Code' field of each RightFax user. Controlling how this and other data will be transformed can be done using the transform file and the RightFax user template (described below).

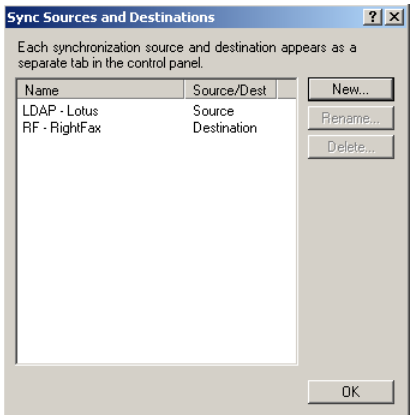
Important *Any LDAP fields must be publicly available. In the example above, the Lotus Notes 'facsimile phone number' field is not available by default and therefore must be made available by a Domino administrator.*

To Define a Source and Destination

1. Select the **Sources & Destinations** button.
2. Using the drop-down menu select your source (LDAP) followed by your destination (RightFax).

3. The source and destination should now be displayed in the **Sync Sources and Destination** window (below). Click **OK**.

Figure 7.12 The Sync Sources and Destinations Dialog Box



Creating Mappings

Mappings define how and when sources and destinations are synchronized. You can define as many mappings as you need and previously defined sources and destinations can be used in more than one mapping. This allows, for example, a single Lotus LDAP source to be synchronized into two different RightFax servers, or two different sources to be synchronized to a single RightFax server.

To Create a New Mapping

1. Select the **New** button.
2. Choose your **Source** and **Destination** using the drop-down arrows.
3. In the **Sync Mapping** window browse to the '\RightFax\Shared Files\Sync\Config folder and select the **Transform File** that is relevant to your environment. The Transform File is responsible for transforming the data generated by the source into an XML file that is translated by the destination. Together with the RightFax User Template (described in the **Destination** section), this file can be edited to create a custom synchronization template that fits the needs of your environment. There are three LDAP transform files included with the Sync Module (**Default LDAP, Default Notes LDAP with Gateway to RightFax**, and **Default Notes LDAP to RightFax**). Use the *Default Notes LDAP with Gateway to RightFax* transform file if you have the RightFax Lotus Notes e-mail gateway and wish to route inbound faxes to a Lotus client. See the RightFax Lotus Notes Module guide for more information.
4. Select the synchronization schedule option that best suits your environment.
5. Click **OK**.

Source Settings The **Source** tab (*LDAP- name*) provides administrators the ability to configure settings associated with the LDAP source. This tab also contains three sub-tabs (**General**, **Filters**, and, **Output**). Each of these is explained below

General The **General** tab allows you to create or choose an existing LDAP configuration. Once you have created or selected an LDAP configuration, you must then set corresponding parameters.

To Create a New LDAP Configuration

1. Choose the pick-list button located under the General tab.
2. In the LDAP Configuration window, choose the **New** button.
3. Select one of the bundled configuration options (Default LDAP, Default Notes LDAP with Gateway to RightFax, or Default Notes LDAP to RightFax) and click **OK**.

4. Under the **General** tab, enter a unique name for your LDAP configuration.
5. At the **Connection** tab > Server section, enter a host and base DN (i.e., *name/organization*) followed by a port number used by your LDAP server. In the security section, enter the authentication method employed by your LDAP server. Once this information has been entered you may test its validity by selecting the **Validate** button. If your settings are correct, you will receive the message "Validation Successful". Click **OK**.
6. Select the **Schema** tab. Here you may change the default and standard LDAP values if you have modified your LDAP schema.
7. The **Deleted Objects** tab allows you to track deleted objects (such as users, groups, and OU's), specify a deleted objects storage container, and if necessary, create search filter that can be used to provide results associated with only deleted objects. This feature can only be used in those LDAP environments that support tracking.

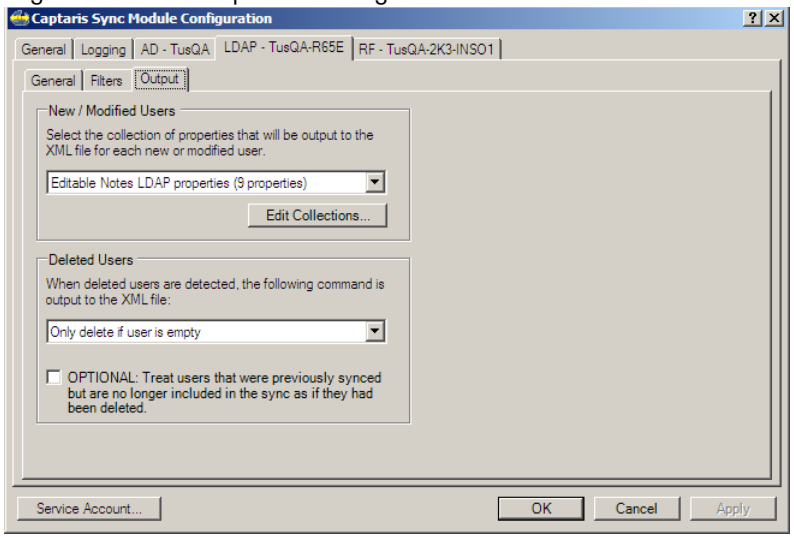
Filters Filters are a set of parameters used by the Captaris Sync Module to determine which users are synchronized from your Lotus LDAP into RightFax. For each set of users you must choose a corresponding domain followed by optional OU's or groups to limit which users are included (at least one OU or group is required). You may also choose to exclude users that are in certain groups. If you do not assign a filter, synchronization will not occur.

To Create a New Filter

1. Select the **New** button.
2. In the **Define Filter** window, browse to your Domain and click **OK**.
3. If desired, browse and select one or more Organizational Units (OU). OU's that have been validated by the Sync Module will possess a grey underline. Those that cannot be validated will possess a red underline.
4. If desired, add an include group(s).
5. If desired, add an exclude group(s).
6. Click **OK**.

Output The **Output** tab allows you to specify the output data for each new, modified or deleted LDAP user that is found during a synchronization event. This data will then be transformed by using the transform file from LDAP format into a format suitable for the destination (RightFax).

Figure 7.13 The Output Tab Dialog Box



For **New/Modified Users**, you can select any number of LDAP properties, as long as the property can be represented as a text string. Two predefined property collections are available **Default LDAP Properties** and **Default Notes LDAP Properties**. The Default Notes LDAP Properties contains typical properties for use with LDAP.

The **Deleted Users** section allows you to control how RightFax will treat those users who have been deleted from your LDAP source. By default, the user is only deleted if it is empty, which is defined as without any documents or phonebook entries. Other options are to always delete users or to never delete users.

Warning *Combining the option to "Treat users that were previously synced but are no longer included in the sync as if they had been deleted" with "Always delete user" can result in a large-scale deletion of users and their faxes. Use with extreme caution.*

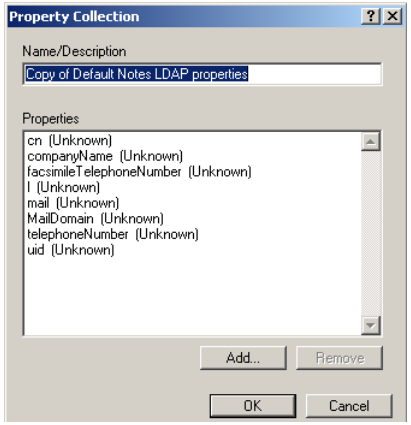
Property collections can be managed by highlighting a collection, followed by clicking the **Edit Collections** button.

The two property collections that are shipped with RightFax cannot be modified. You can however select the **Copy** button to create an editable copy of either.

New collections are defined by assigning a name and then choosing one or more properties that will belong to the collection.

Properties are selected using the **Property Collection** dialog box. One or more properties can be selected at a time

Figure 7.14 The Property Collection Dialog Box



Destination Settings The **Destination** tab (*RF- RightFax Server*) provides administrators the ability to configure settings associated with the RightFax server destination. This tab also contains two sub-tabs (**Servers** and **Users**). Both of these are explained below.

Server The **Server Name** field is where the RightFax (destination) server name is entered.

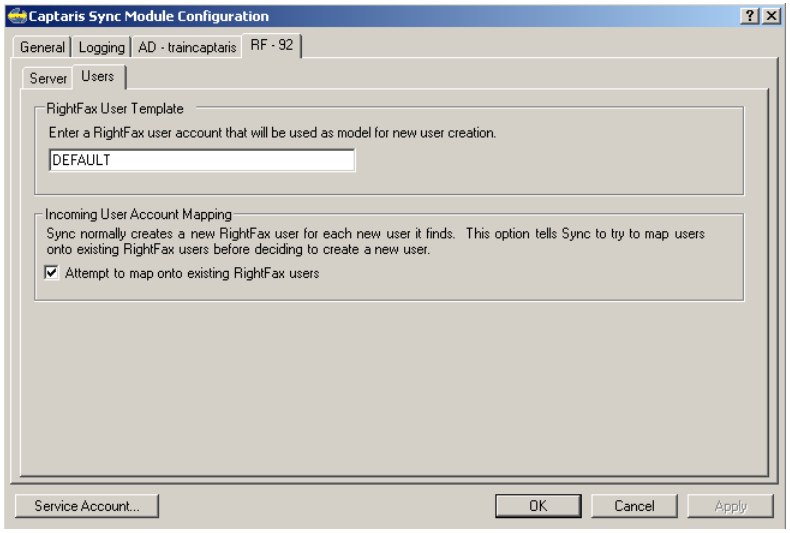
The **RightFax Account** determines which account will be used when the Sync Module needs to access the RightFax server. Since the Sync service can create and delete users, this account must have "Administrative Access" permission. It is recommended that a new account be created specifically for use by the Sync service. Further, it is recommended that the account be set to NT authenticate to the Windows account under which the Sync service runs (see above).

Important *If a password is specified for this account, the password is saved in the RightFax server's registry in an encrypted form. If you wish to avoid this, use the NT authentication technique described above.*

Users Enter a RightFax user account that will be used as model for new user creation. New users will inherit all settings associated with the specified user. You can set up multiple RightFax/Destination profiles, each which a different model user.

This allows for all manner of customization, such as having different users synchronized into different RightFax groups, or with different RightFax permissions and so on.

Figure 7.15 The User Tab Configuration Dialog Box

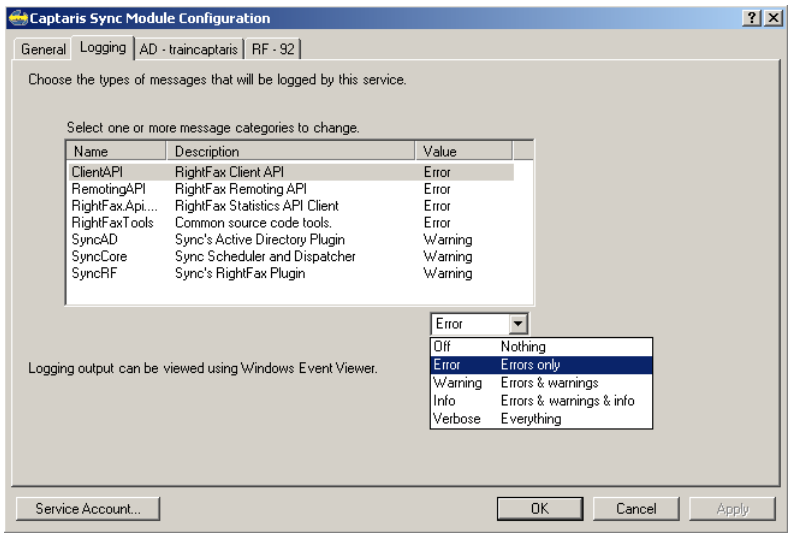


Troubleshooting

The RightFax Sync Module provides administrators with convenient and customizable real-time logging and troubleshooting tools.

Logging The **Logging** tab allows RightFax administrators to control the types of messages that will be logged by the Sync Module. Each of these messages can be customized using categories and a corresponding logging level. By default all output is written to the Windows Event Logs, except when the service is running in diagnostics (debug) mode, in which case the messages are displayed in real-time via the diagnostics window.

Figure 7.16 The Logging Tab Configuration Dialog Box



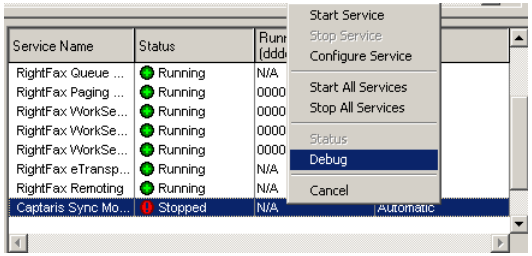
Diagnostics

Like all RightFax services, the Sync Module can be run in 'debug' mode. Using the Sync Module in this mode provides RightFax administrators with robust real-time monitoring, logging, and troubleshooting via a new diagnostics window. From this window it is possible to customize the trace (logging) level, group by processes, and save the output to an RTF or TXT file. Errors and warnings are also displayed in different colors, making it easier to pick out problems. The diagnostics window also allows the service to be started, stopped, paused and resumed, all without leaving the window.

To run the Sync Module in debug mode

1. Open EFM and browse to the services view in the lower-right corner.
2. Right-click the RightFax Sync Module and choose **Stop**.
3. When the service has stopped, right-click the service and select **Debug**. This will launch the **Diagnostics** window.

Figure 7.17 The Debug option, available when right-clicking the Captaris Sync Service from Enterprise Fax Manager

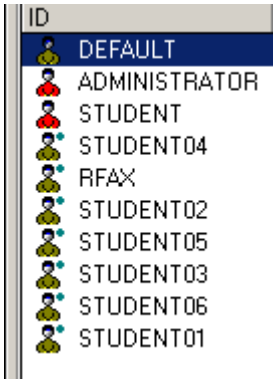


Changes made to the Sync Module control panel when running in debug mode will not be reflected in the diagnostics windows until re-launched. Also note that when running the Sync Module in debug mode it is possible to restart the service by clicking **OK** in the Sync Module Control Panel applet. Setting the service that runs the Sync Module (CapaSync.exe) to manual will prevent this problem however this is only recommended when performing complex debug associated troubleshooting.

Verifying User Synchronization

Users that have been created via the Sync Module are displayed in Enterprise Fax Manager with a corresponding green bullet next to their user icon. Users who do not display this marker have not been updated or created via the Sync Module.

Figure 7.18 Users created via the Captaris Sync Module as displayed in Enterprise Fax Manager



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Chapter 8

Managing Fax Servers with Enterprise Fax Manager

You can use the Enterprise Fax Manager application to administer multiple RightFax servers. With Enterprise Fax Manager, you can manage users, groups, signatures, forms, printers, billing codes, library documents, and more, for all RightFax servers from one application.

Enterprise Fax Manager (EFM) is a client application that can be run on any Windows 2000 or Windows XP Professional computer. It is installed as an optional component during the client installation (described in the *RightFax Installation Guide*.)

Note *Enterprise Fax Manager replaces RightFax's 16-bit administrative utility, FaxAdmin. If you are upgrading from an older version of RightFax, do not run FaxAdmin on any RightFax server version 6.0 or later.*

Enterprise Fax Manager is compatible with RightFax servers version 5.0 and later.

Starting Enterprise Fax Manager

After it has been installed, you can start Enterprise Fax Manager from the **Start > Programs** menu, or click **Enterprise Fax Manager** in the RightFax tray icon shortcut menu.

When you start Enterprise Fax Manager for the first time, it will attempt to log on under your network user ID. If you did not log on to the network as "Administrator," the **Login** dialog box opens. Enter a user ID and password with RightFax administrative access.

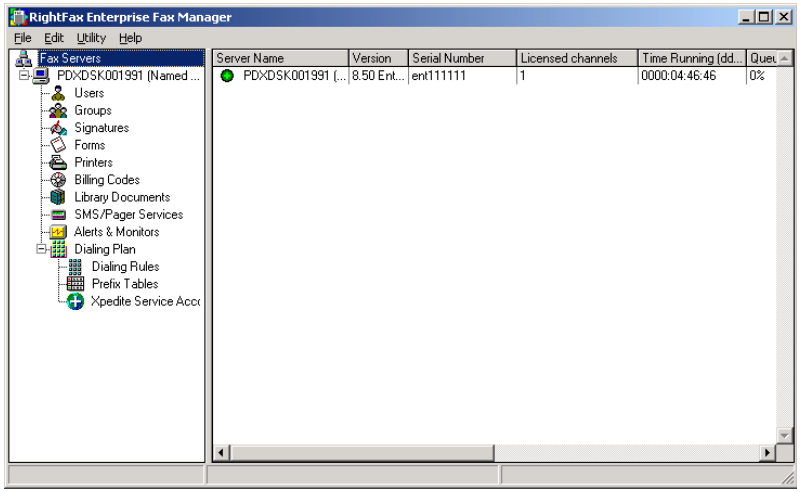
Quitting Enterprise Fax Manager

To quit Enterprise Fax Manager, on the **File** menu, click **Exit**. When you quit the program, all of your changes and additions are saved.

The Enterprise Fax Manager window

When you start Enterprise Fax Manager, the **Enterprise Fax Manager** window opens.

Figure 8.1 The Enterprise Fax Manager Window

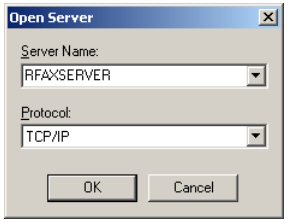


The left pane of the window, called the Fax Server Tree, contains the open RightFax servers and their administrative components (users, forms, printers, etc.). The right pane displays details of the selected component. Items listed on the right, such as individual users or library documents, are referred to as "objects." Objects can be added, deleted, and modified according your needs. If you don't have a mouse, press F6 to switch the cursor between the left and right panes.

Opening RightFax servers

To display a fax server in the Fax Server Tree, press CTRL+O, or in the **File** menu, click **Open Server**. The **Open Server** dialog box appears.

Figure 8.2 The Open Server Dialog Box



In the **Server Name** box, type the name of the RightFax server to open. In the **Protocol** box, enter the network protocol used by that server.

After one or more RightFax servers have been opened in Enterprise Fax Manager, the servers will, by default, open each time you run the program. This default setting can be changed in **Preferences,** described later in this chapter.

To close a RightFax server, click the server name and on the **File** menu, click **Close Server**.

Refreshing data in the window

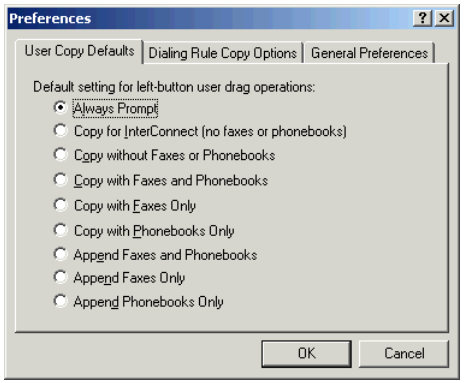
Users can create new library documents, forms, and signatures in their FaxUtil mailboxes while Enterprise Fax Manager is open. These new files will not appear in Enterprise Fax Manager until the view is refreshed. To refresh all objects, including objects added or modified since the last check, press F5 or on the **Edit** menu, click **Refresh**.

Setting Preferences

Enterprise Fax Manager has several customizable preferences. To view your preferences, on the **Edit** menu, click **Preferences**. The **Preferences** dialog box opens. The rest of this section describes the options in this dialog box.

The User Copy Defaults tab

Figure 8.3 User Copy Defaults



You can copy one or more users from one RightFax server to another by dragging and dropping selected users to another server in the Fax Server Tree. The options on the **User Copy Defaults** tab set the behavior of Enterprise Fax Manager when copying RightFax users from one server to another.

Always Prompt Display this list of options each time users are copied from one server to another. You must select a copy option before the users will be copied.

Copy for InterConnect (no faxes or phonebooks) Copies all user information, excluding faxes and phonebook entries, and then sets the user's **Routing Type** to InterConnect, pointing back to the server that the user was copied from.

Copy without Faxes or Phonebooks Copies all user information *excluding* faxes and phonebook entries.

Copy with Faxes and Phonebooks Copies all user information *including* faxes and phonebook entries. Duplicate users will receive all faxes in the source account, even if the same faxes already exist on the destination server, creating multiple copies of the same fax.

Copy with Faxes Only Copies all user information including faxes but not phonebook entries. Duplicate users will receive all faxes in the source account, even if the same faxes already exist on the destination server, creating multiple copies of the same fax.

Copy with Phonebooks Only Copies all user information including phonebook entries but not faxes.

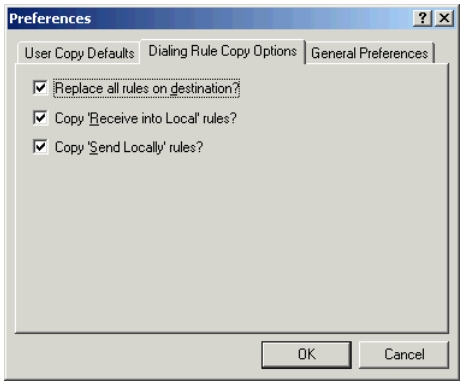
Append Faxes and Phonebooks Copies only information for duplicate user accounts. All faxes and phonebook entries from the source user account will be added to the destination user account. No other user information will be changed. Users on the destination server will receive all faxes in the source account, even if the same faxes already exist on the destination server, creating multiple copies of the same fax.

Append Faxes Only Copies only information for duplicate user accounts. All faxes from the source user account will be added to the destination user account. No other user information will be changed. Users on the destination server will receive all faxes in the source account, even if the same faxes already exist on the destination server, creating multiple copies of the same fax.

Append Phonebooks Only Copies only information for duplicate user accounts. All phonebook entries from the source user account will be added to the destination user account. No other user information will be changed.

The Dialing Rule Copy Options tab

Figure 8.4 Dialing Rule Copy Options



You can copy one or more dialing rules from one RightFax server to another by dragging and dropping rules to another server in the list. The options on the Dialing Rule Copy Options tab set the behavior of Enterprise Fax Manager when copying RightFax dialing rules from one server to another.

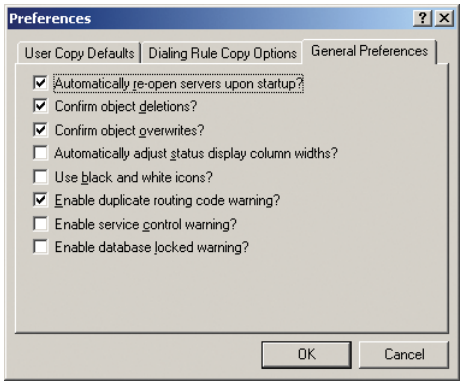
Replace all rules on destination Copies all dialing rules from the source server to the destination server, deleting any existing dialing rules.

Copy 'Receive into Local' rules Includes all dialing rules with the "Receive into local server" action when copying. If this check box is not selected, "Receive into local" rules will be ignored during the copy.

Copy 'Send Locally' rules Includes all dialing rules with the "Send locally" action when copying. If this check box is not selected, "Send locally" rules will be ignored during the copy.

The General Preferences tab

Figure 8.5 General Preferences



The options on the General Preferences tab set some general preferences for views and actions in Enterprise Fax Manager.

Automatically re-open servers upon startup Recalls which servers were open when the program was last quit and opens those servers again on startup. If this check box is not selected, you must reopen each RightFax server upon starting Enterprise Fax Manager.

Confirm object deletions Displays a confirmation dialog box each time you delete an object, such as a user or library document. If this check box is not selected, there will not be any confirmation prior to deleting objects. This is convenient if you are deleting many objects but makes it more likely that you will accidentally delete an object that you want to keep.

Confirm object overwrites Displays a confirmation dialog box each time you overwrite an object, such as by copying an object with the same name into the system. If this check box is not selected, there will not be any confirmation prior to overwriting objects.

Automatically adjust status display column width
Adjusts the widths of the columns in the Server Status and Services pane (see “Monitoring the Status of RightFax Servers and Services” on page 117)to fit the column’s contents. This option will not affect the column widths in any other Enterprise Fax Manager view. When this check box is selected, you can still manually adjust the column widths in the Server Status and Services pane, but they will resize each time the screen image is refreshed.

Use black and white icons Select this option if your monitor is set to high contrast black and white. This changes the Enterprise Fax Manager server status icons to colors that are can be read in this color mode.

Enable duplicate routing code warning Displays a warning message when a user is created that has a routing code that is the same as another existing user.

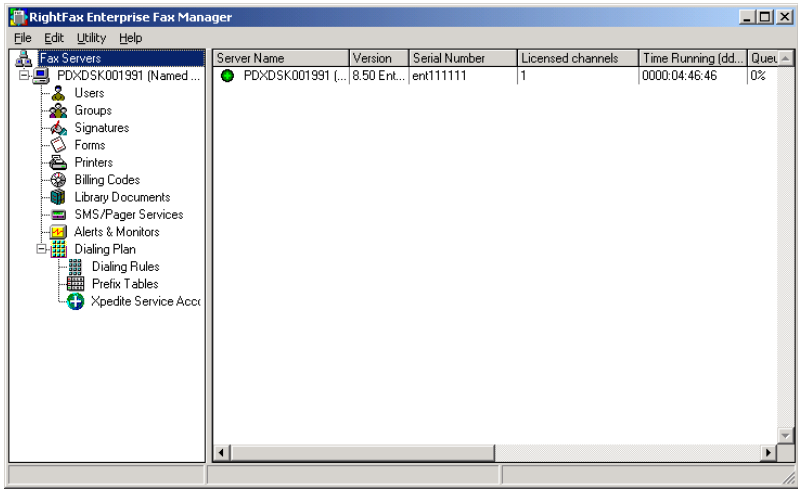
Enable service control warning Displays a warning message when you make any changes to the state of any of the RightFax services.

Enable database locked warning Displays a warning message when you attempt to access the database when it has been locked by certain database management tools.

Viewing RightFax Server Information

To view the status of all open RightFax servers, click **Fax Servers** at the top of the Fax Server Tree. A list of all open servers and the status of each server appears in the right pane of the window. This section describes each column in the right pane.

Figure 8.6 The Fax Server Tree



Server name

The Server Name column displays the name of each open RightFax server and network protocol. An icon to the left of the name indicates the status of the RightFax service. A green ‘+’ indicates that all services are running normally. A yellow ‘!’ indicates that one or more services are not running but that normal fax operations are available. A red ‘–’ indicates that one or more services are not running and normal fax operations are not available.

Version

The Version column displays the RightFax server software version.

Serial number

The Serial Number column displays the serial number that was entered when the RightFax server was installed. You must provide this number when you contact Captaris RightFax customer support.

Time running

The Time Running column displays the length of time that has elapsed since the RightFax Server service was last started. Display is in the format DDDD:HH:MM:SS.

Queue usage

The Queue Usage column displays the percentage of the fax server's internal Event Queue that is currently in use. For more information on the RightFax Event Queue, see "Understanding the Fax Server Internal Event Queue" on page 33.

Fax board availability index

The Fax Board Availability Index column displays a number that indicates the relative availability of the server's fax boards. The higher the number, the more available the server for sending faxes. RightFax uses this value when an outgoing fax number has two equally weighted dialing rules that send it to two different servers. In such a case, RightFax sends the fax via the server with the highest availability index.

Character set mode

This column displays the OEM or ANSI code page being used by the server. The code page determines the language character sets that are supported for fax conversion.

Working with Objects

Sorting objects

To sort the objects listed in Enterprise Fax Manager by column, double-click the column heading. The objects will sort in ascending order and an indicator will appear in the column heading. You can also click a column heading to alternately sort in ascending and descending order. Enterprise Fax Manager recalls how objects are sorted when you quit and restart the program.

Sorting columns

To move a column left or right, click the column heading and drag it left or right to its new position.

Selecting objects

To edit, delete, or otherwise work with an existing object, you must first select it in the list of objects displayed. Selected objects are highlighted.

To select an object, click it or use the UP ARROW and DOWN ARROW keys to move to the object and press the SPACEBAR to highlight it. To un-select an object, click it or press the SPACEBAR again. To select multiple objects, drag the mouse pointer down the objects while holding the left mouse button. If the desired objects are not all in a continuous group, click each object while holding down CTRL.

Before adding objects

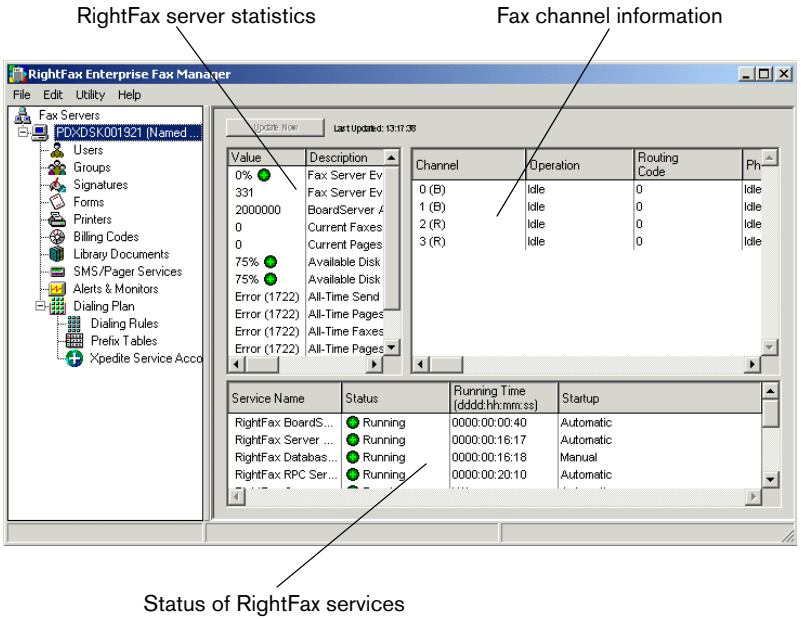
Before you begin adding objects to the RightFax system, it is important that you plan the structure and anticipate the needs of your network users. Consider whether you will divide your organization into groups, whether you would like each group or department to have its own cover sheet, and who will act as administrator or alternate administrator for the group. Determine a block of routing codes sufficient for the entire system and decide

upon any custom notification types desired. You should create new objects in RightFax only after you have carefully considered these issues.

Monitoring the Status of RightFax Servers and Services

Enterprise Fax Manager displays statistics and fax channel information and manages services on each RightFax server. To view and manage the status and services of each RightFax server, click the name of the server in the Fax Server Tree in the left pane.

Figure 8.7 Server Status and Statistics



Note *If you are running remote BoardServers, they can be displayed in Enterprise Fax Manager but will not include fax server data.*

Click **Update Now** to recompile and update the server statistics.

Understanding the server statistics

Statistics about the server are displayed in the upper-left corner in the right pane of the window.

Fax Server Event Queue Usage The percentage of the fax server's internal Event Queue currently in use. For more information on the RightFax Event Queue see "Understanding the Fax Server Internal Event Queue" on page 33.

Fax Server Events Processed The total number of events processed by the fax server since the Server module was started.

BoardServer Availability Index The relative availability of the fax boards on the server. The higher the number, the more available the server for sending faxes. RightFax uses this value when an outgoing fax number has two equally weighted dialing rules that send it to two different servers. In such a case, RightFax sends the fax via the server with the highest Availability Index.

Current Faxes Queued for Sending The current number of outgoing faxes waiting to be sent.

Current Pages Queued for Sending The current number of outgoing fax pages waiting to be sent.

Available Disk Space for Fax Images The percentage of disk space on your RightFax server available for storing fax images.

Available Disk Space for Fax Database The percentage of disk space on your RightFax server available for storing fax database information.

All-Time Send Attempts The total number of faxes sent from this server since the **All-Time Counter Starting Date** (described later).

All-Time Pages Sent The total number of fax pages sent from this server since the **All-Time Counter Starting Date** (described later).

All-Time Faxes Received The total number of faxes received on this server since the **All-Time Counter Starting Date** (described later).

All-Time Pages Received The total number of fax pages received on this server since the **All-Time Counter Starting Date** (described later).

All-Time Counter Starting Date The starting date from which the "All-Time" statistics (described earlier) are calculated.

Tip *All of the All-Time statistics will report an error message if you are running fax boards in simulation mode.*

Monitoring fax channel information

Information about the fax channels on the server is displayed in the upper-right corner in the right pane of the window

Channel Each fax channel that is available on this RightFax server.

Operation The current operational status of each channel.

Routing Code The inbound routing code of this fax channel for incoming faxes.

User ID The destination user ID of this fax channel for incoming faxes.

Monitoring services

The lower-right pane of the window lists each RightFax service, its status (running or stopped), the length of time it has been running, and its startup method (manual or automatic). To monitor services on remote servers, you must have network administrative access to the server as well as RightFax administrative access.

Starting and stopping services

To start or stop a service, right-click the service to open a shortcut menu.

- Click **Start Service** to start the selected service.
- Click **Start all Services** to start all services in the appropriate sequence.
- Click **Stop Service** to stop the selected service.
- Click **Stop all Services** to stop all services.

Configuring services

To configure a service, double-click the service. Or, right-click the service to open a shortcut menu, and then click **Configure Service**.

- For information on configuring a RightFax Server, BoardServer, or WorkServer, refer to the appropriate chapter in this guide.
- For information on configuring the AutoReply service, see Chapter 23, "Responding to Inbound Faxes with AutoReply".
- For information on configuring the RightFax e-mail gateway, see Chapter 27, "Using RightFax E-mail Gateways" or refer to the *RightFax Gateway for Microsoft Exchange or RightFax Gateway for Lotus Notes Guide.*
- For information on configuring the RightFax Integration Module, refer to the *RightFax Integration Module Guide.*

Synchronizing the RightFax Server with External Systems

The RightFax WorkServer modules synchronize with external systems such as the Kofax NetScan user tables, library document catalogs, and import files for billing codes on a periodic, scheduled basis. You can force the server to synchronize immediately without changing the defined schedule.

On the **Utility** menu, click **Synchronize External Systems**.

Running Enterprise Fax Manager Web Edition

Enterprise Fax Manager Web Edition is a Web-based version of Enterprise Fax Manager that allows remote management of your RightFax servers from any Web browser. Enterprise Fax Manager Web Edition is included with all RightFax servers but must be installed separately on an IIS server on your network. For information on installing Enterprise Fax Manager Web Edition, refer to the *RightFax Installation Guide*.

To run Enterprise Fax Manager Web Edition

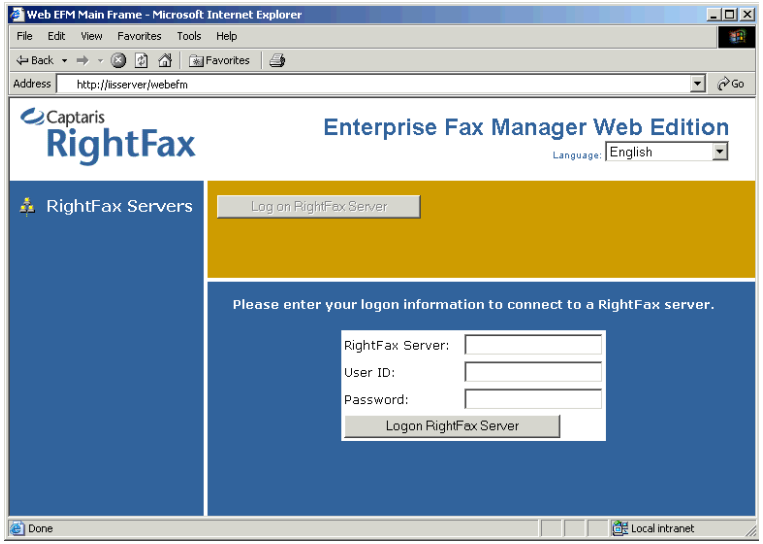
Note *Enterprise Fax Manager Web Edition was developed and tested for use with Microsoft Internet Explorer version 6.0. Although it will run in other browsers, RightFax recommends using Internet Explorer version 6.0 or later for best results.*

1. Open a Web browser and point the URL to the /webefm folder on the IIS server. For example:

   http://*server.domain***.com/webefm**

2. Unless your IIS server is configured to allow anonymous access, a dialog box will appear that prompts you to log on to the IIS server. Enter your logon information and click **OK**. The browser will prompt you for information to open a RightFax server.

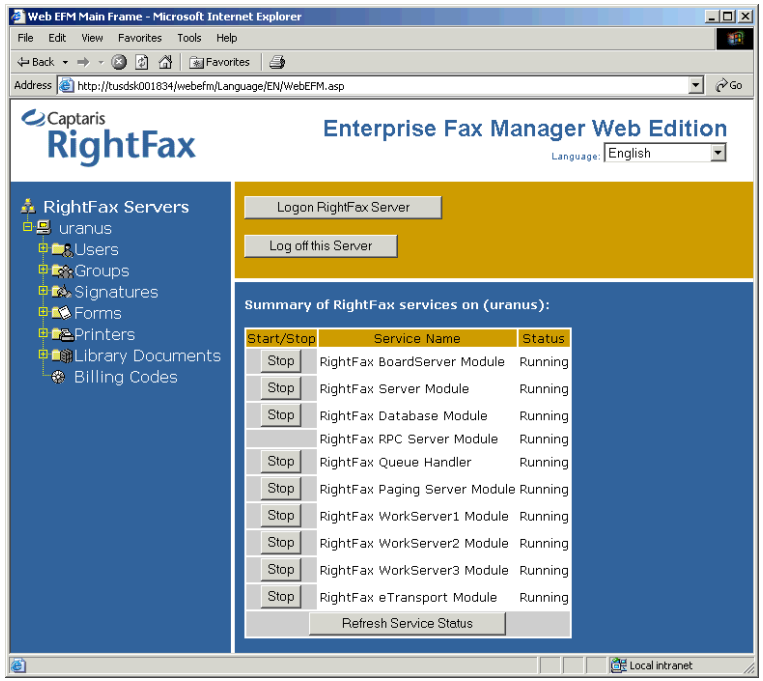
   Figure 8.8 Opening a RightFax Server in Enterprise Fax Manager Web Edition



3. Enter the name of the RightFax server to open and a RightFax user ID and password that has administrative access to the RightFax server. Click **Logon RightFax Server**.

4. The RightFax server you specified opens in the frame in the left side of the page.

Figure 8.9 Server Options in Enterprise Fax Manager Web Edition



Managing RightFax servers in Enterprise Fax Manager is similar to managing RightFax servers in Enterprise Fax Manager for Windows.

Throughout this guide, references to Enterprise Fax Manager will describe the Windows version of Enterprise Fax Manager and not the Web edition. However, in almost all cases, the instructions will apply to both versions.

Enabling Automatic Windows Authentication on IIS 6.0

Automatic Windows authentication is not enabled by default in Enterprise Fax Manager Web Edition installed on computers running Microsoft IIS 6.0. To enable Windows authentication, make the following changes on the Microsoft IIS server where Enterprise Fax Manager Web Edition is installed:

- Open the Authentication Methods configuration for WebEFM on the IIS server. Disable the **Anonymous access** option and enable the **Windows Integrated authentication** option.
- Open the file Web.config located in the WebEFM folder on the IIS server with any text editor. This is an XML file and must be changed using XML conventions. Locate the two authorization nodes in this file indicated with the tag <authorization>. The first authorization node is active and the second is commented out. Comment out the first authorization node and remove the comment tags from the second node. Save and exit Web.config.

Selecting a language

Enterprise Fax Manager Web Edition is available in the following languages:

- English
- French
- French-Canadian
- German
- Italian
- Portuguese
- Spanish

To change the language, select the language you want in the **Language** menu in the upper-right corner of the page.

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Chapter 9

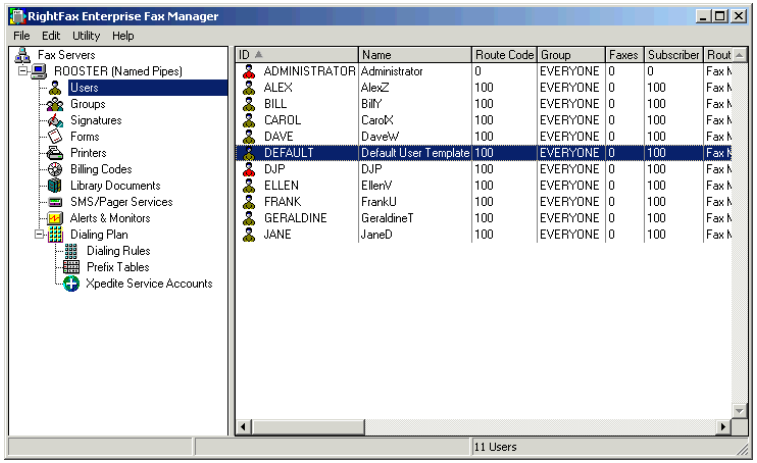
Creating RightFax Users

Each fax user must be assigned a user ID on their local RightFax server. The RightFax server uses the user ID to assign ownership to sent faxes and route received faxes to their intended recipients. You can customize each user's access to and usage of the system in the user profile.

Managing RightFax Users

Every RightFax user in your organization has a unique user ID and profile on a RightFax server. To add, edit, or delete RightFax user profiles, run Enterprise Fax Manager (see "Starting Enterprise Fax Manager" on page 111) and click **Users** under the RightFax server in the Fax Server Tree. The list of users appears in the right pane of the window.

Figure 9.1 The RightFax Users List



Each user ID is preceded by an icon.

- If the icon is red, the user has administrative access.
- If the icon is yellow, the user does not have administrative access.
- A dot indicates that the user is synchronized with another application, and editing changes should be made in that application only.

Understanding the default RightFax user

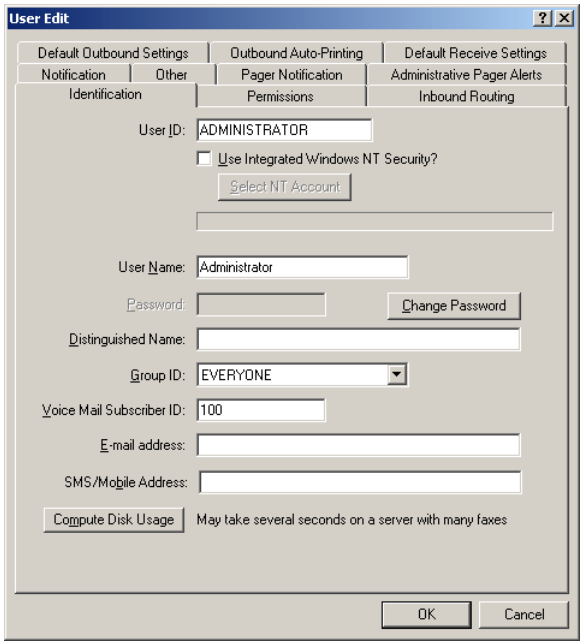
The "Default" user ID is included in the list of users on each RightFax server. The Default user ID is used as a template for creating new users. When you are configuring your RightFax users, edit the Default user to have the same attributes as the majority of your fax users. Never delete the Default user.

Note *If you are using Active Directory synchronization to create new users (described in* Chapter 7, "Enabling and Using the Captaris Sync Module"*), the Active Directory synchronization profile settings will override settings in the Default user ID.*

Adding a user

To add a new RightFax user, press INSERT or in the **Edit** menu, click **New**. The **User Edit** dialog box opens. To configure the user profile, see "Creating a User Profile" on page 123.

Figure 9.2 The User Edit dialog box



The new user will have the same attributes as the Default user ID, except for the **User ID**, **User Name**, **Password**, and **Distinguished Name** boxes. Because each RightFax user must have a unique user ID, you must enter a value in the **User ID** box to create the new user. All other boxes are optional. For information on completing each of the options in each tab see "Editing user properties" on page 123.

Deleting a user

To delete a user, select the user to delete and press DELETE or in the **Edit** menu, click **Delete**. By default, you will be prompted for confirmation that you want to delete the user.

Copying a user from one server to another

Using Enterprise Fax Manager you can copy one or more users from one RightFax server to another. Select the users you want to copy, and then drag the selection to another server. The amount of information copied is configured in the Enterprise Fax Manager **Preferences** dialog box (see "Setting Preferences" on page 113).

If you copy users from a new RightFax server version to an earlier server version, you will lose configuration data that is not supported by the older server (for example, features on version 8.7 servers will not be available on version 8.5 servers).

Editing user properties

To edit the properties of an existing user, run Enterprise Fax Manager, select the user to edit, and press ENTER or in the **Edit** menu, click **Edit**. You can also double-click the user. The **User Edit** dialog box opens.

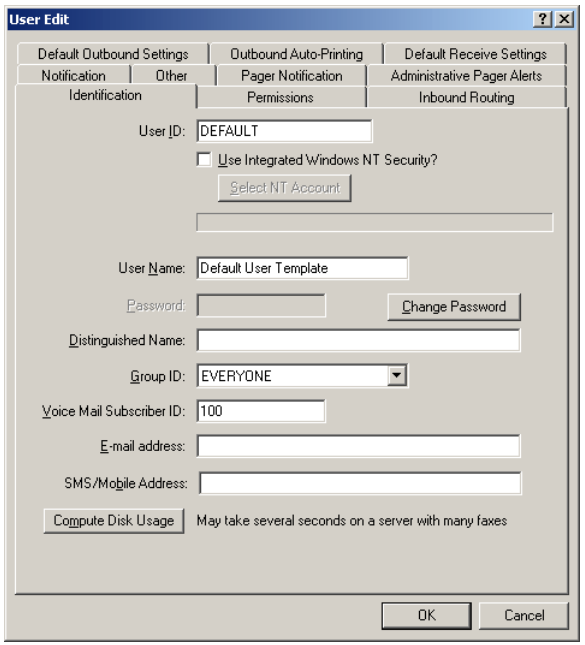
To make global editing changes to selected groups of users, you must use the Moduser.exe editing utility available as part of the RightFax administrative utilities (downloadable separately from the Captaris Web site).

Creating a User Profile

The user's profile is defined in the **User Edit** dialog box. This section describes all the options in this dialog box.

The Identification tab

Figure 9.3 The User Edit Identification Tab



User ID The unique identifier used throughout the RightFax system to identify a user. In most cases, this ID should be the same as the user's network login name. The ID can be 21 characters long.

Use Integrated Windows NT Security Each RightFax user ID can be linked to a Windows NT based user account to take advantage of your network's established Windows NT based security system (see "Using Windows NT Security Authentication"

on page 134). Click **Select NT Account** to enter a domain and account name to link to the user. You can also select from a list of all user accounts in each domain.

Note *Do not enable Windows NT security authentication for RightFax users who have not upgraded to the 32-bit version of the RightFax client applications. Users with the Windows NT security authentication feature enabled will receive an error when opening any 16-bit RightFax client application.*

If you want this fax user to link to a Windows NT based user account, select the **Use Integrated Windows NT Security** check box to allow the user account to be accessed *only* via Windows NT authentication. If a user's current Windows NT account is not linked to any RightFax user IDs, that user cannot manually enter the user ID and password for anyone with this check box selected when accessing client applications.

With this option, RightFax will authenticate the user based solely on his Windows network account name and password, so the RightFax **Password** field will be disabled.

User Name This is a descriptive name to help the administrator identify users. If you will be adding user names with diacritical or other characters refer to the *RightFax Installation Guide* for information about character sets and code pages on your RightFax server.

Password The password required by each user to access his personal FaxUtil mailbox and to gain access to the fax server settings in Enterprise Fax Manager. If you are creating a new user, you can enter a password.

To change a user's password, click **Change Password** and enter a new password. If you click **Change Password** and do not enter a new password, the password will be erased and the user will not be required to enter a password when accessing RightFax client applications

Distinguished Name The Microsoft Exchange distinguished name, used to confirm accurate RightFax and Exchange user synchronization.

Group ID The name of the RightFax group to which the user belongs. All users must belong to a group. For information on creating new groups, see "Adding new groups" on page 138.

Voice Mail Subscriber ID Specify the mailbox number to use when routing faxes to a telephony server. This box is also used to assign TeleConnect mailbox numbers to RightFax accounts (requires the TeleConnect module, purchased separately).

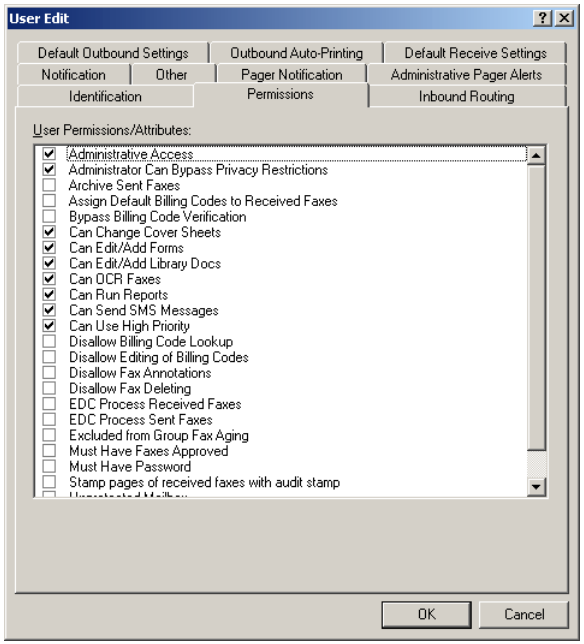
E-mail address Enter the user's e-mail address. This is required if the user will be sending documents to e-mail addresses in addition to fax addresses via the RightFax client applications.

SMS/Mobile Address Enter the user's SMS-capable cell phone number. This is the number to which SMS notifications about the user's sent and received faxes will be sent.

Compute Disk Usage Click to calculate the space on the server that is taken by this user's faxes.

The Permissions tab

Figure 9.4 The User Edit Permissions Tab



Administrative Access Gives users access to the administrative functions of RightFax. Without this permission, a user cannot open Enterprise Fax Manager or switch to another user's mailbox without the correct password. All administrators can run Enterprise Fax Manager and can switch to the mailboxes of users belonging to their administered groups. Administrators with this permission can not view any faxes other than their own without also having the **Administrator Can Bypass Privacy Restrictions** option also selected.

Administrator Can Bypass Privacy Restrictions Gives users that have the **Administrative Access** option selected the additional ability to view faxes in other users' mailboxes. Only an administrator that has this permission enabled can grant this permission to other users.

Archive Sent Faxes Archives outbound faxes according to the Archive options defined in the WorkServer configuration program (see "Archive settings" on page 38).

Assign Default Billing Codes to Received Faxes Assigns the user's default billing code settings (see "Default Billing Codes" on page 129) to all received faxes. This is most useful if you have set RightFax to require billing codes on received faxes (see "Requiring billing codes on received faxes" on page 161).

Bypass Billing Code Verification Allows the user to send faxes without supplying correct billing codes. This attribute will not exclude the user from having to supply other required fields in order to send faxes. This attribute is only effective if billing code verification is required system-wide.

Can Change Cover Sheets Lets the user change cover sheets. If this check box is not selected, the user will be restricted to using the cover sheet specified in the **Default Outbound Settings** tab (page 128).

Can Edit/Add Forms Lets the user use the **Store as Form** feature of FaxUtil to add new overlay forms to the RightFax system.

Can Edit/Add Library Docs Lets the user use the **Store in Library** feature of FaxUtil to add new library documents to the RightFax system.

Can OCR Faxes Allows the user to OCR faxes, either manually or automatically, as defined in FaxUtil. This attribute does not affect OCR routing and does not have to be enabled if OCR routing is being used. You must have licensed the RightFax OCR Conversion module for any OCR functions to be available.

Can Run Reports Lets the user create reports using the RightFax Fax Reporter utility available at http://www.captaris/support/downloads/rightfax/index.html.

Can Send SMS Messages Lets the user send documents to SMS addresses from within the RightFax client applications.

Can Use High Priority Lets the user send faxes using "high" priority. If disabled, the user is restricted to "normal" and "low" priorities.

Disallow Billing Code Lookup Prevents the user from viewing the list of valid billing codes. This requires the user to know at least one valid billing code.

Note *You must check both Disallow Billing Code Lookup and Disallow Editing of Billing Codes to ensure that users will not be able to modify their default billing code settings.*

Disallow Editing of Billing Codes Prevents the user from changing the default billing code settings for outgoing faxes. In addition, any billing codes specified in phonebook entries are ignored as are any <BILLINFO> embedded codes.

Disallow Fax Annotations Prevents the user from adding notes to faxes.

Disallow Fax Deleting Prevents the user from deleting faxes. This setting can be useful for persons doing manual fax routing. The restriction applies to the user and not the mailbox, so if the user switches mailboxes, he still cannot delete faxes.

EDC Process Received Faxes This setting is used with RightFax connectors that are purchased separately.

EDC Process Sent Faxes This setting is used with RightFax connectors that are purchased separately.

Excluded from Group Fax Aging Excludes the user from the automatic fax aging (image deletion) attributes of the group to which he belongs.

Must Have Faxes Approved Requires every fax sent by the user to be approved by a full, group, or alternate group administrator.

Must Have Password Requires the user to have a password. This does not restrict the user from changing his password.

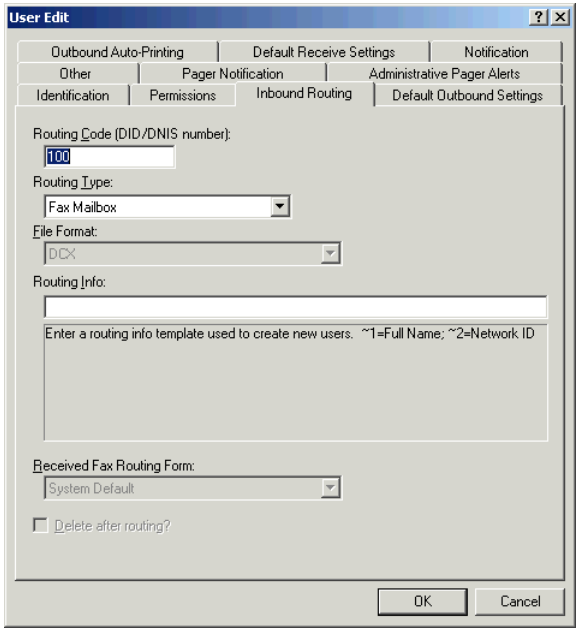
Stamp Pages of Received Faxes with Audit Stamp Adds one line of text to the bottom of each received fax page listing total pages, date and time received, fax server used, inbound routing code used, CSID of sender, and transmission duration.

Unprotected Mailbox Allows all other RightFax users to view, manipulate and delete documents in this user's mailbox. This does not affect the security of phonebook entries belonging to the user.

View First Page Only Restricts the user from viewing or printing anything but the first page of a received fax. This is useful when manual routing is employed. The restriction applies to the mailbox regardless of the permissions of the user viewing the mailbox. Faxes must be routed out of the restricted mailbox before subsequent pages can be viewed or printed.

The Inbound Routing tab

Figure 9.5 The User Edit Inbound Routing Tab



Routing Code (DID/DNIS Number) The routing code is a unique number that RightFax uses to route received faxes to the correct user. Enter the DTMF extension, DID phone number, or channel number you have assigned to this user. When a fax is received by the server, any routing information included is compared to each user's **Routing Code**. If a match is made, the fax is routed to the user's mailbox. For more information on routing faxes, see Chapter 22, "Routing Inbound Faxes".

Note *You must ensure that no routing code is used more than once. If you do use the same routing code more than once, only one of the persons to whom it is assigned will receive incoming faxes.*

Routing Type Specify where incoming faxes will be routed after they arrive in the user's fax mailbox. For more information on each of the routing types, see Chapter 22, "Routing Inbound Faxes".

File Format Choose the file format in which faxes will be delivered when routed.

Table 9a File Formats for Routed Faxes

Format	Description
DCX	DCX combines multiple PCX pages into a single file. It solves the multiple attachment problem of PCX files but maintains the large file size (average of 135 Kb per page).
GIF	GIF is graphics interchange format. This format is available for routing in Microsoft Exchange.
PCX	PCX produces a single page per file with an average fax page size of 135 Kb. It is useful for routing received faxes to DOS and Macintosh users because DOS and Macintosh have built-in capabilities to view PCX-formatted fax pages. This format is not recommended for Windows client applications, because PCX is a large format and users have to sift through multiple attachments when viewing multiple page faxes.
PDF	PDF is portable document format.
TIFF-G3/ TIFF-G4	TIFF-G3 is a structured file type that is best for monochromatic images like fax pages (average of 35 Kb per page). Most e-mail systems have the ability to read TIFF-G3 files, and you can associate the RightFax Fax Viewer with TIFF-G3 files to view these faxes in *any* application. TIFF-G4 is a more compressed file format.

Routing Info Specify how to route the fax to the correct destination for the **Routing Type** specified. If you route faxes to an e-mail mailbox, you must enter the e-mail address here. For information on the required **Routing Info** for each **Routing Type** see Chapter 22, "Routing Inbound Faxes".

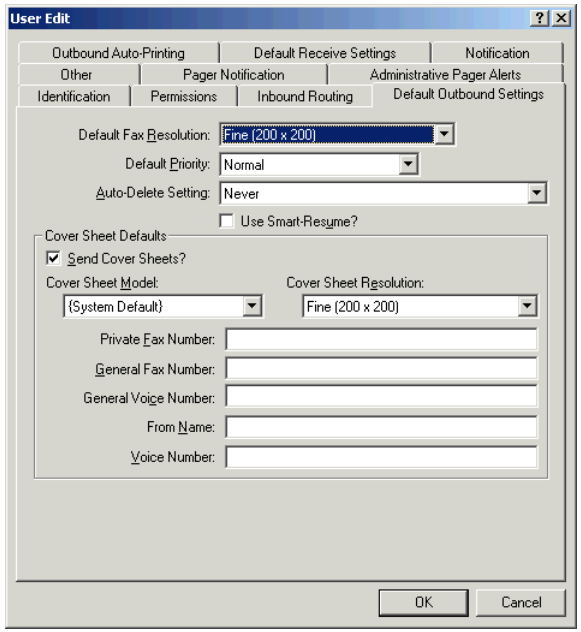
Received Fax Routing Form Specify the Outlook form you want to route incoming faxes to. Click "Default" to use the form set in the E-mail Gateway configuration program (described in the *RightFax Gateway for Microsoft Exchange Guide).* This list is only available if you have selected "Exchange Mailbox" as your **Routing Type**.

Delete After Routing Deletes received faxes from the user's FaxUtil mailbox after the fax has been successfully routed to the application specified in the **Routing Type** list.

If this check box is selected, notification of received faxes (page 134) will not work.

The Default Outbound Settings tab

Figure 9.6 The User Edit Default Outbound Settings Tab



Default Fax Resolution Specify the resolution of the users outbound faxes. Normal resolution (200×100 DPI) creates draft quality images and allows shorter transmission times. Fine resolution (200×200 DPI) is recommended for high quality printed documents and Optical Character Recognition (OCR). This setting affects the body of a fax, but not the cover sheet.

Default Priority Sets the priority at which all the user's faxes are responded to by the fax server unless specified otherwise in the **Fax Information** dialog box when the fax is created.

Auto-Delete Setting Specify when to delete sent faxes from the user's FaxUtil mailbox. Although this option saves disk space, automatically deleting sent faxes prevents the user from reviewing or forwarding sent faxes. Enabling automatic deletion does not affect the original document if it was created in another application.

If the user has the **Archive Sent Faxes** permission checked (page 125), or if they have enabled autoprinting of sent faxes in the RightFax FaxUtil client application, sent faxes will not be automatically deleted, even if this option is enabled.

Use Smart-Resume Allows the fax server to intelligently resend only the portion of a fax which failed to send. For example, if the connection is broken after 40 pages of a 50 page fax, normally all 50 pages have to be resent. By enabling Smart-Resume, the server will only resend the last 10 pages.

This option can also be set by fax users on a per-fax basis from the **Fax Information** dialog box (see "Using the Fax Information Dialog Box" on page 248).

Send Cover Sheets Allows the user to send cover sheets with faxes.

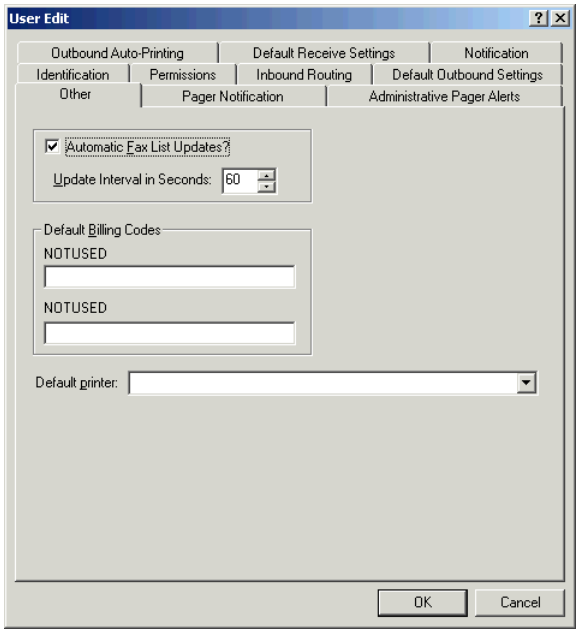
Cover Sheet Model Specify the default fax cover sheet file to use. The list displays the fax cover sheet files in the RightFax\FCS folder. Select **Default** to use the fax cover sheet specified for the user's group.

Cover Sheet Resolution Specify the resolution of the user's cover sheets. Normal resolution (200×100 DPI) creates draft quality cover sheets and allows shorter transmission times. Fine resolution (200×200 DPI) is recommended for high quality cover sheets and Optical Character Recognition (OCR). This setting affects the cover sheet only.

Sender Information Fields Specify the user's name, fax number, and phone number information as it will appear on fax cover sheets.

The Other tab

Figure 9.7 The User Edit Other Tab



Automatic Fax List Updates Configures the user's FaxUtil mailbox to automatically refresh (scan for new faxes).

Update Interval in Seconds Specify the interval at which automatic fax list updates will occur.

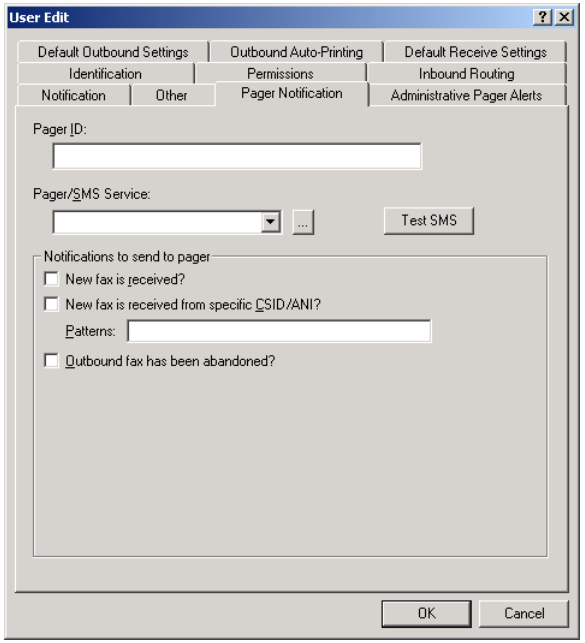
Default Billing Codes Specify the Billing Code #1 and Billing Code #2 settings that will appear in the **Fax Information** dialog box each time the user sends a fax.

The Pager Notification tab

These settings let the fax server send SMS messages or pages to RightFax users to notify them about the status of sent and received faxes. This dialog box specifies the fax status messages to send to the user. The text of the status messages that will be sent can be customized in the **User Messages** tab of the RightFax Server configuration program in Windows Control Panel (described on page 27).

Before completing this dialog box, you must configure a list of SMS and pager service types and providers. For information on configuring pager or SMS services, see Chapter 16, "Adding SMS and Pager Services"

Figure 9.8 The User Edit Pager Notification Tab



Pager ID Specify the user's pager ID. This is usually a numeric ID and is often the phone number for the pager.

Pager/SMS Service Select the pager or SMS service to use for delivering the notification. If you have not added and properly configured paging/SMS services for this user, you must do so before completing this dialog box (described in Chapter 16, "Adding SMS and Pager Services").

Test SMS This button lets you send a test message to an SMS-capable device. To send a test SMS message, select an SMS service in the **Pager/SMS Service** box, type a phone number in the **Pager ID** box, and then click this button.

New Fax is Received Pages the user each time a new fax is received. If the TeleConnect module is installed, the RightFax server will include the TeleConnect ID with all notifications of incoming faxes. This lets users retrieve faxes without first requesting a fax list.

New Fax is Received from Specific CSID/ANI Pages the user each time a new fax is received from one or more specific senders that are specified in the **Patterns** box.

Patterns Lists the CSID or ANI numbers that, when received, will send a page alert to the user. Separate multiple numbers with semicolons.

Outbound Fax has been Abandoned Pages the user each time one of his outbound faxes fails to send for any reason.

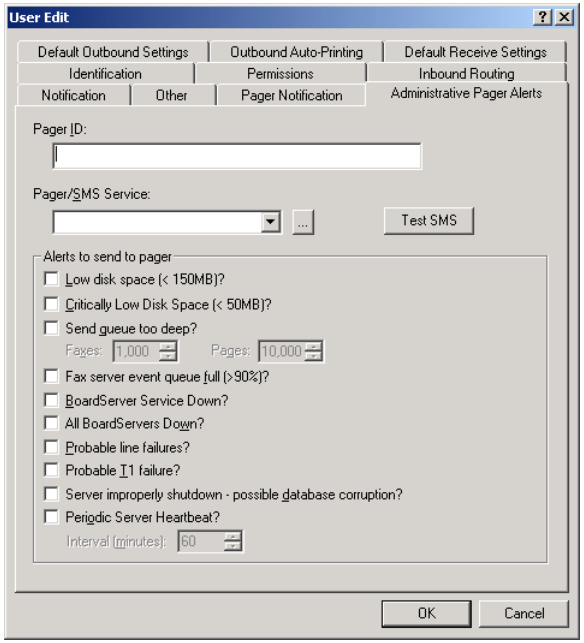
The Administrative Pager Alerts tab

These settings let the fax server send SMS messages or pages to RightFax administrators to alert them of specific RightFax events. This dialog box specifies the RightFax server status messages to send to the user. The text of the alert messages that will be sent can be customized in the **Admin Messages** tab of the RightFax Server configuration program in Windows Control Panel (described on page 28).

RightFax Enterprise versions 8.7 and higher include a more comprehensive Alerting and Monitoring service that lets you select from hundreds of server statistics to monitor and define the event thresholds, alert types, and alert messages to send. For more information on the RightFax Alerting and Monitoring service, see Chapter 17, "Using the Alerting and Monitoring Service".

Before completing this dialog box, you must configure a list of SMS and pager service types and providers. For information on configuring pager or SMS services, see Chapter 16, "Adding SMS and Pager Services".

Figure 9.9 The User Edit Administrative Pager Alerts Tab



Pager ID Specify the user's pager ID. This is usually a numeric ID and is often the phone number for the pager.

Pager/SMS Service Select the pager or SMS service to use for delivering the alert message. If you have not added and properly configured paging/SMS services for this user, you must do so before completing this dialog box (described in Chapter 16, "Adding SMS and Pager Services").

Test SMS This button lets you send a test message to an SMS-capable device. To send a test SMS message, select an SMS service in the **Pager/SMS Service** box, type a phone number in the **Pager ID** box, and then click this button.

Low Disk Space Free hard drive space on the RightFax server has fallen below 150 MB.

Critically Low Disk Space Free hard drive space on the RightFax server has fallen below 50 MB.

Send Queue too Deep The number of faxes or fax pages queued to send exceeds a fixed number. Enter the number of faxes to exceed in the **Faxes** box. Enter the number of fax pages to exceed in the **Pages** box.

Fax Server Event Queue Full The percentage of the fax server's internal Event Queue has reached 90%. For more information on the RightFax Event Queue see "Understanding the Fax Server Internal Event Queue" on page 33.

BoardServer Service Down One of the BoardServers has become unable to send or receive faxes.

All BoardServers Down All of the BoardServers have become unable to send or receive faxes.

Probable Line Failures An error or series of errors has indicated to the BoardServer that a phone line is not operating correctly.

Probable T1 Failure Multiple phone lines have failed in such a way that the BoardServer suspects a T1 line is not operating correctly.

Server improperly shut down The RightFax Server module was shut down unexpectedly. This may indicate that the operating system has failed or the server has lost power.

Periodic Server Heartbeat Sends a brief notification of the RightFax server's status, including statistics on fax activity. When you select this check box, you must also specify the **Heartbeat Interval**, in minutes.

Understanding the Alert Frequencies

After an alert is triggered, the problem causing the alert must be remedied within a set length of time before a fault of the same type will cause another alert. For example, this prevents free disk space fluctuating around 50 Mb from causing repeated alerts. If an alert condition persists, the alert will be repeated periodically. Different types of alerts have different delays and repeat intervals as listed in the following table.

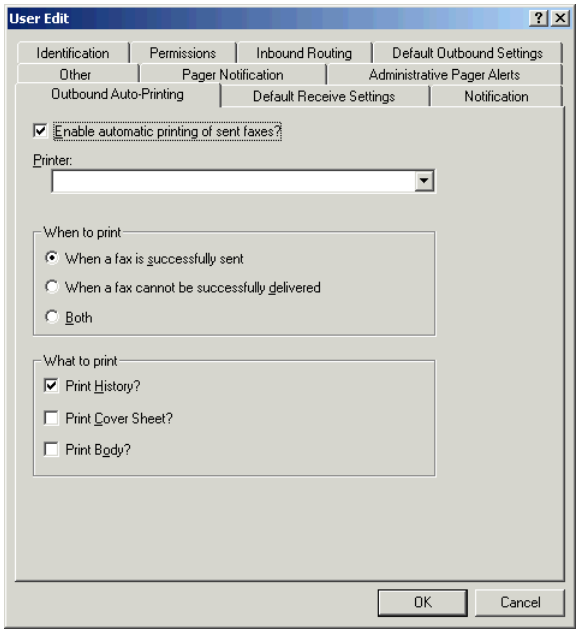
Table 9b Pager Alert Frequencies

Alert	Delay	Repeat interval
All BoardServers are down.	10 minutes	60 minutes
BoardServer send queue too deep.	30 minutes	90 minutes
Disk space is critically low (<50MB).	10 minutes	30 minutes
Disk space is getting low (<150MB).	20 minutes	60 minutes
Fax server internal queue has reached 90% utilization.	30 minutes	90 minutes
One or more BoardServers are down but one or others are still in service.	10 minutes	60 minutes

Alerts that are not listed here are sent only once, when the alert condition occurs.

The Outbound Auto-Printing tab

Figure 9.10 The User Edit Outbound Auto-Printing Tab



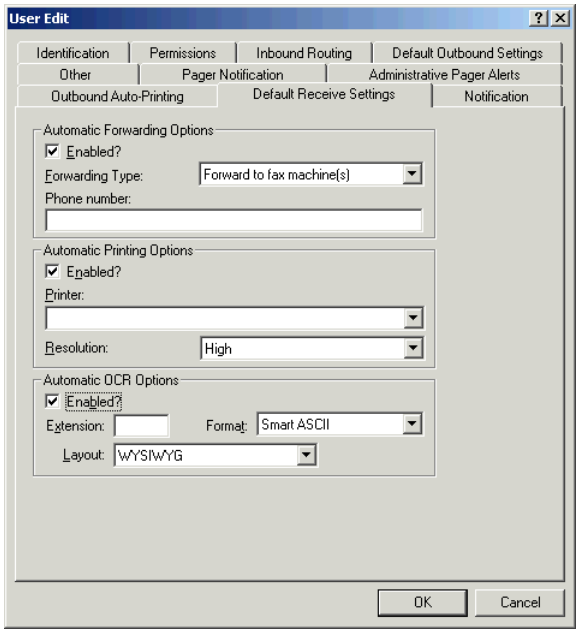
Enable Automatic Printing of Sent Faxes Prints a copy of all sent faxes. If this check box is selected, you must also select a printer from the list of available printers. These are the printers that you have set up under **Printers** in Enterprise Fax Manager (see "Adding a printer" on page 152).

When to Print Specify whether to print successfully sent faxes, faxes that were not successfully sent, or both.

What to Print Specify whether to print the fax history, the fax cover sheet, and/or the fax body.

The Default Receive Settings tab

Figure 9.11 The User Edit Default Receive Settings Tab



Automatic Forwarding Options Forward the user's faxes to either a fax machine or another network user as soon as they are received. Specify the fax number or RightFax user ID to forward to.

Automatic Printing Options Automatically print received faxes. Select a printer from the list of available printers. These are the printers that you have set up under **Printers** in Enterprise Fax Manager (see "Adding a printer" on page 152). Click a print resolution in the **Resolution** list.

Automatic OCR Options Convert all received faxes to text using OCR (optical character recognition). This option requires the RightFax OCR Converter module. Enter a three-letter file extension for the output file in the **Extension** box.

In the **Format** list, click the text format used to interpret your fax pages. “ASCII” produces a plain text file. “Smart ASCII” approximates the original format. “RTF” (rich text format) preserves fonts and formatting but is only available for Windows clients.

In the **Layout** list, specify how you want the text to be formatted on the page. “WYSIWYG” (What You See Is What You Get) will try to read the fax in the layout it sees. If, for instance, RightFax sees that the fax has three columns, it will try to read the document in column style. “Left Justified” displays the text starting from the left margin of the fax.

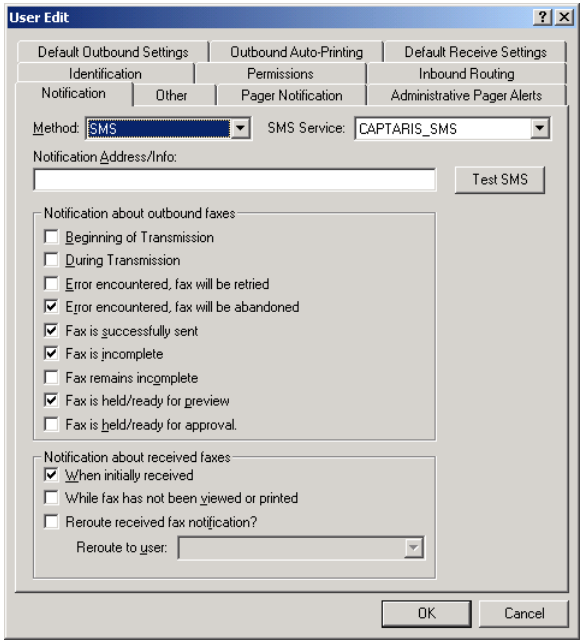
The Notification tab

These settings let you configure the fax server to notify RightFax users about the status of sent and received faxes via e-mail or SMS text messaging. The text of the status messages that will be sent can be customized in the **Custom Messages** tab of the RightFax Server configuration program in Windows Control Panel (described on page 25).

If you want to send notifications via SMS text messaging, you must configure a list of SMS service types and providers before completing this dialog box. For information on configuring SMS services, see Chapter 16, “Adding SMS and Pager Services”.

If you want to use Network Broadcast notifications and are using Windows 2003, you must open the Control Panel and enable the Messenger service, which is disabled by default.

Figure 9.12 The User Edit *Notification* Tab



Method Select the notification method for the user.

- **Use Group's Method.** Uses the notification method defined for the group to which the user belongs (described on page 138).
- **SMS.** Sends the notification to an SMS capable device. If you select this option, you must select an SMS service in the **SMS Service** box.
- **E-mail Systems.** Sends the notification to the user's e-mail box. (Notes and Exchange notifications require you to purchase and license a separate module.) You must specify the e-mail address of the user in the **Notification Address/Info** box.
- **Custom notification methods.** These can be created using the RightFax API. Information on the RightFax API can be found at www.captaris.com.com/implementation_services.

Note *If you are routing inbound faxes to an e-mail gateway or other destination on your network and you have select the Delete After Routing check box (page 127), no notifications for received faxes will be sent.*

SMS Service Select the SMS service to use for delivering the notification. If you have not added and properly configured an SMS service, you must do so before completing this dialog box (described in Chapter 16, "Adding SMS and Pager Services").

Test SMS This button lets you send a test message to an SMS-capable device. To send a test SMS message, select an SMS service in the **SMS Service** box, type a phone number in the **Notification Address/Info** box, and then click this button.

Notification Address/Info Specify the user's e-mail address for e-mail notification, or other information necessary for sending fax notifications of the type selected in the **Notification Method** list.

Notification About Outbound Faxes Specify the events for outbound faxes for which the user will receive notification.

Notification About Received Faxes Specify the events for received faxes for which the user will receive notification. If you select the check box **Reroute Received Fax Notification**, you must also select a RightFax user ID to route to from the list.

Using Windows NT Security Authentication

RightFax Enterprise servers can take advantage of your network's established Windows NT based security system by linking each RightFax user ID to a Windows NT based user account. When logging on to client applications that require authentication (such as Enterprise Fax Manager and FaxUtil), RightFax attempts the Windows account name and password with which you are currently logged on. If the current Windows account name and password have been linked to a RightFax user ID, that RightFax ID is used to log on. If no RightFax user account is linked, a dialog box opens prompting you to manually enter your RightFax user name and password.

Each user's link status is displayed under the **NT Account Link Status** column in the user list in Enterprise Fax Manager. The status "N/A" means that the user is not required to log on via Windows NT authentication. "No NT Account Assigned" means that the user is required to log on via Windows NT authentication but is not linked to a Windows account. (This user will be allowed to log on manually.) "NT Account Assigned" means that the user is required to log on via Windows NT authentication and is linked to a Windows NT based account. This RightFax ID can only be accessed when the user is logged on to Windows NT based network with the linked account.

Linking RightFax user IDs to Windows NT based accounts

RightFax Enterprise server provides several methods for linking one or more RightFax user IDs to existing Windows NT based accounts. To link users to NT accounts, you must have administrative rights in the domain where the accounts reside.

To link a RightFax user ID

1. Edit the user properties in Enterprise Fax Manager.
2. Click the **Identification** tab.
3. Select the **Use Integrated Windows NT Security** option.
4. Click **Select NT Account**.
5. Type or select the Windows domain and account names to link and click **OK**. The linked domain and account name will be listed under the RightFax user ID in the **Identification** tab.

Note *You can only use the Windows NT account lookup feature when you are running Enterprise Fax Manager on the RightFax server or a Windows workstation.*

To automatically link one or multiple existing RightFax User IDs

1. In the Enterprise Fax Manager user list, select one or more RightFax users.
2. Right-click any selected user to open a shortcut menu, and select **Enable NT Authentication and Link** from the pop-up menu.

   RightFax links each selected user ID to the matching Windows account in the domain to which you are currently logged on. If there is no matching Windows account name in the current domain, no link is created.

To automatically link all new user IDs

Because all new RightFax user IDs created in Enterprise Fax Manager use the default user ID as a template, you can configure the default user ID so that all new user IDs automatically link to Windows accounts.

1. In Enterprise Fax Manager, edit the default user ID.
2. Click the **Identification** tab and select the **Use Integrated Windows NT Security** option. Click **OK**.

   For each new user ID you create in Enterprise Fax Manager, RightFax will link the user ID to the matching Windows account in the domain you are currently logged on to. If there is no matching Windows account name in the current domain, no link is created.

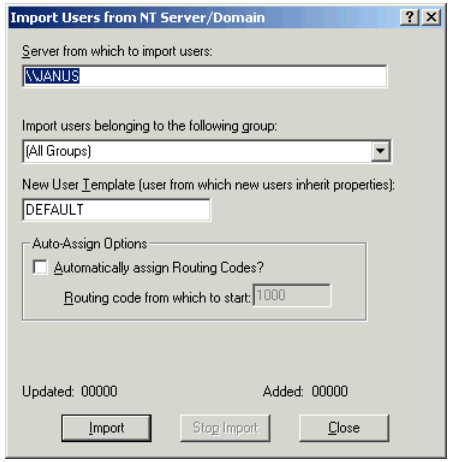
Importing Users

To simplify the process of setting up all your network users in the RightFax server, you can import users into the fax server from your network or from an ASCII file.

To import users from a Windows NT based network

1. In Enterprise Fax Manager, on the **Utility** menu, click **Import Users from NT Domain**. The **Import Users from NT Server/Domain** dialog box opens.

Figure 9.13 The Import Users from NT Server/Domain Dialog Box



2. Enter the computer name of the Primary Domain Controller (PDC) or Backup Domain Controller (BDC) from which the users will be imported.
3. Select the group to import.
4. Specify the RightFax user ID to use as a template (usually Default).
5. If you want to automatically assign a routing code to each user, select the **Automatically Assign Routing Codes** check box, and then enter the starting code. The first imported user will receive the starting routing code and each additional user's routing code will increment by one. If the system increments to a routing code that already exists, it will be skipped.
6. When you have completed the dialog box, click **Import** to begin.

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Chapter 10

Creating Groups of Users

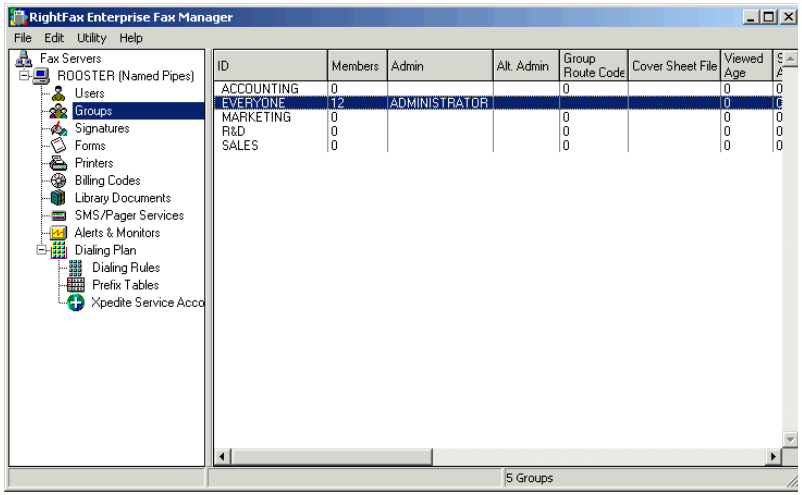
You can create groups of users to which you can assign a common administrator, alternate administrator, fax options, and fax cover sheet. You can use groups to subdivide your organization and manage the fax server system more efficiently. For example, you can create separate Marketing and Sales groups on the fax server. Instead of having one administrator responsible for all fax users in your organization, you can assign fax administrators to the Marketing and Sales departments.

Groups can also play an important role in when notifying users of new faxes. If a user does not respond to his notification by viewing or printing a new fax within a specified time, the group administrator will be alerted to the fax and can then print the fax or forward it to someone else.

Managing Groups

To add, edit, or delete groups of RightFax users, run Enterprise Fax Manager (see "Starting Enterprise Fax Manager" on page 111) and click **Groups** under the appropriate RightFax server in the left pane of the window. If groups have been defined, the list of groups appears in the right pane.

Figure 10.1 The Server Groups List



Adding new groups

To create a new group, press INSERT or select **New** from the **Edit** menu. The **Group Edit** dialog box opens. Because each RightFax group must have a unique group ID, you must enter a value in the group ID box. All other boxes are optional. For information on completing each of the options on each tab see "Editing Group Properties" on page 138.

Deleting groups

To delete a group, select the group to delete and press DELETE or select **Delete** from the **Edit** menu. By default, you will be prompted for confirmation that you want to delete the group.

Copying groups from one server to another

In Enterprise Fax Manager, you can copy one or more groups from one RightFax server to another. Select the groups you want to copy, and then drag the selection to another server.

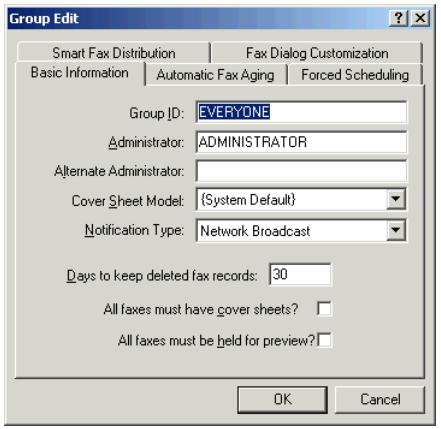
If you copy groups from a new RightFax server version to an earlier server version, you will lose configuration data that is not supported on the older server (for example, features on version 8.5 servers will not be available on version 8.0 servers).

Editing Group Properties

To edit the properties of an existing group, run Enterprise Fax Manager, select the group to edit and press ENTER, or select **Edit** from the **Edit** menu. You can also double-click the group. The **Group Edit** dialog box opens.

The Basic Information tab

Figure 10.2 The Group Edit Basic Information Tab



Group ID The unique ID for this group.

Administrator Specify the user ID of the person who will be the administrator of this group. The administrator has access to all the mailboxes in the group and receives alerts when a user has not printed or viewed a fax before the time specified in **User Notify Time** in the RightFax Server configuration program expires (see "User Notify Time" on page 23).

Alternate Administrator Specify the user ID of the person who will be the alternate administrator of this group. The alternate administrator will have access to all the mailboxes in this group and will receive messages about faxes belonging to group members if the user and the administrator have not printed or viewed a fax in the designated interval.

Cover Sheet Model Specify the default fax cover sheet for the group. The list displays the fax cover sheet files in the RightFax\FCS folder. Selecting "Default" uses the cover sheet file FCS.pcl.

Notification Type Specify the default notification method for the group.

Days to keep deleted fax records Specify the number of days to keep records of deleted faxes in the RightFax database. If set to 0 (zero), deleted fax records will never be automatically purged by the fax server.

All faxes must have cover sheets Requires all users in the group to use a cover sheet on outbound faxes.

All faxes must be held for preview All the faxes for users in the group will be held for preview before they are sent. Users must view the faxes and verify that they should be sent.

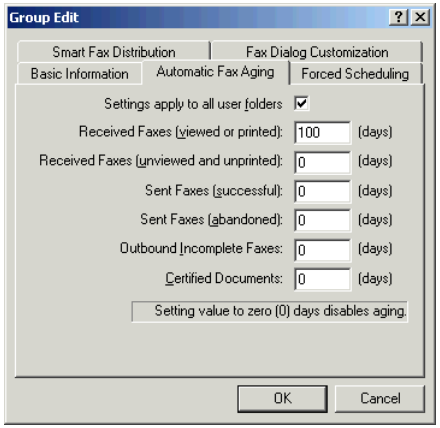
The Automatic Fax Aging tab

With automatic fax aging, you can specify the number of days after the date a fax is sent or received that it will be deleted from a user's FaxUtil mailbox. Automatic fax aging is only available if you have a RightFax Enterprise or Satellite server.

Automatic fax aging does not remove the fax records from the RightFax database, so you can still run reports about the faxes.

You can also perform manual fax aging with the Faxage.exe program.

Figure 10.3 The Group Edit Automatic Fax Aging Tab



For each type of fax, enter the number of days the fax will remain before it is deleted. To specify that faxes should not be deleted, enter 0 (zero).

To apply these settings to all the users' folders, select the check box **Settings apply to all user folders**. To disable fax aging, click to clear the check box.

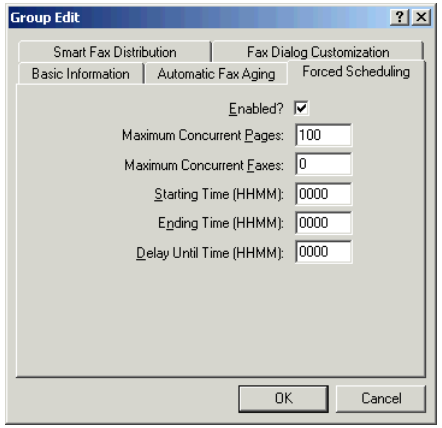
The Forced Scheduling tab

Forced scheduling controls fax traffic volume on the basis of user groups. You can restrict the total number of pages or total number of faxes that are sent simultaneously by all users in the group and limit these restrictions to a specific time period.

For example, if you have 50 sales representatives, each sending 100 faxes every hour, all of your fax channels may be continuously busy processing their faxes. This could delay more important faxes from other departments, as well as block incoming faxes. With Forced Scheduling, you can restrict the members of the Sales group to sending no more than 20 pages at a time between the hours of 8 A.M. and 5 P.M. and delay any faxes over that limit until 6 P.M.

This feature restricts only simultaneously scheduled faxes. It does not restrict the total number of faxes or fax pages that can be sent during the specified time period. If a fax exceeds the maximum limit and is delayed until a later time, it can be rescheduled at any time by selecting **Fax > Forward to New Number** in FaxUtil.

Figure 10.4 The Group Edit Forced Scheduling Tab



Enabled Enables the Forced Scheduling feature.

Maximum Concurrent Pages Specify the maximum number of fax pages that can be scheduled at one time by all the users in the group.

Maximum Concurrent Faxes Specify the maximum number of faxes that can be scheduled at one time by all the users in the group.

Starting/Ending Time The starting and ending times for the period that the restriction applies. This is written in 24-hour HHMM format. For example, to set the restriction from 8:00 A.M. to 5:30 P.M., set the **Starting Time** to 0800, and set the **Ending Time** to 1730.

If during this time period any faxes exceed the limits you specify, those faxes will be delayed until the time you specify in the **Delay Until Time** box.

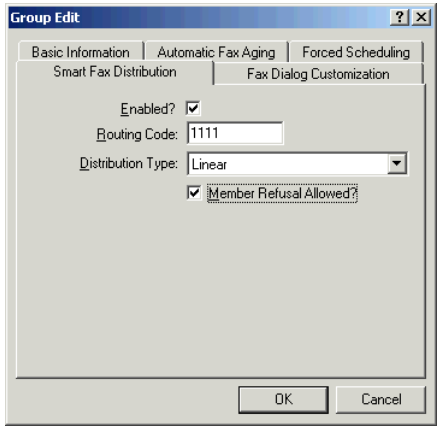
Delay Until Time The time at which delayed faxes will be sent. This is written in 24-hour HHMM format. For example, to send delayed faxes at 6:00 P.M., enter 1800.

If the **Delay Until Time** falls between the **Starting** and **Ending** times, automatically delayed faxes will never be sent. This is because delayed faxes, by definition, cannot be sent between your **Starting** and **Ending** times. In such a case, delayed faxes will be continuously bumped to the next day at that same time.

The Smart Fax Distribution tab

With smart fax distribution, a group routing code is created and all faxes received by the group are distributed systematically between all the users in that group.

Figure 10.5 The Group Edit Smart Fax Distribution Tab



Enabled Enables smart fax distribution for this group.

Routing Code Assigns a routing code to the group.

Distribution Type Specify either linear or balanced distribution. With linear distribution, faxes are distributed to each group member in succession. With balanced distribution, faxes distribution is

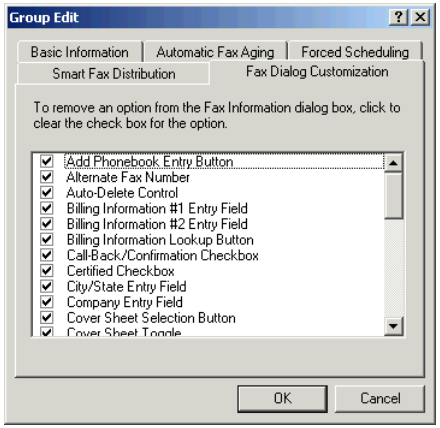
determined by each user's processing rate. If one user is faster at processing faxes than another, the faster user is distributed faxes at a faster pace.

Member Refusal Allowed Lets users take themselves temporarily out of the distribution loop. When this check box is selected, users can refuse faxes by running FaxUtil and selecting **Tools > Refuse Distributions**.

The Fax Dialog Customization Tab

This group of check boxes lets you customize the appearance of the **Fax Information** dialog box (the dialog box used to create and address outgoing faxes) for the users in this group. This is useful for removing options that do not apply to or should not be changed by these users.

Figure 10.6 The Group Edit Fax Dialog Customization Tab



The following table lists each of the checkboxes on this dialog box, and the tab and option on the **Fax Information** dialog box that each checkbox represents. For more information on the options in the **Fax Information** dialog box, see Chapter 24, "Creating, Sending, and Deleting Faxes".

Table 10a Fax Dialog Customization Checkboxes

Checkbox	Fax Information dialog box tab	Option
Acquire Attachments from Scanner	Attachments	**Scanner** button (scanner icon)
Add Phonebook Entry Button	Main	**Add Entry** button
Alternate Body Attachment Checkbox	Attachments	Ability to display **Alt. Body** column in **Selected Attachments** list
Alternate Fax Number	Main	**Alt. Fax Number** text box
Auto-Delete Control	More Options	**Automatic Deletion** selection box
Billing Information #1 Entry Field	Main	**Billing Code 1** text box (title may vary)
Billing Information #2 Entry Field	Main	**Billing Code 2** text box (title may vary)
Billing Information Lookup Button	Main	**Lookup** button
Browse for File Attachment	Attachments	**Browse** button (folder icon)
Certified Checkbox	Main	**Use certified delivery** checkbox
City/State Entry Field	Main	**City/State** text box
Comments Text	Cover Sheet Notes	**Comments for your Records** text box

Table 10a Fax Dialog Customization Checkboxes (Continued)

Checkbox	Fax Information dialog box tab	Option
Company Entry Field	Main	**Company** text box
Cover Sheet Selection Button	More Options	**Cover Sheet File** selection box
Cover Sheet Toggle	Main	**Use cover sheet** text box
Delay Send Controls	Main	**Delay send** checkbox and time/date fields
Form Type Selection	More Options	**Use form** checkbox and selection list
From Name Entry Field	More Options	**Name** text box
From Phone Number Entry Field	More Options	**Voice Number** text box
General Fax Number Entry Field	More Options	**Company Fax Number** text box
General Voice Number Entry Field	More Options	**Company Voice Number** text box
Library Document/ Attachments Selection	Attachments	**Available Attachments** library document list and **File Attach** button (paper clip icon)
'More Options' Tab	More Options	All tab contents
Native Attach Document Checkbox	Attachments	**Native** column in **Selected Attachments** list
'Notes' Button/Tab	Cover Sheet Notes	All tab contents
Notes Text	Cover Sheet Notes	**Notes to be Placed on the Cover Sheet** text box
PDF Options	Main	**PDF Options** button (next to **Create PDF image** checkbox)

Table 10a Fax Dialog Customization Checkboxes (Continued)

Checkbox	Fax Information dialog box tab	Option
Phonebook Import Main Menu Option	Main	**Phonebook** button
Phonebook Selection Button	Main	**Phonebook** button
Preview Checkbox	Main	**Hold for preview** checkbox
Priority Checkbox	More Options	**Priority** selection box
Private Fax Number Entry Field	N/A	**Phonebook Import** option on the **Tools** menu in FaxUtil.
Recipient Type Field	Main	Down arrow button next to the **Fax number** text box that lets users select the **E-mail address** option
Secure Send/Recipient Fax ID Control	More Options	**Recipient Fax ID** text box
Smart-Resume Checkbox	Main	**Use smart-resume** checkbox
Transmission Quality Control	Main	**Fine mode** checkbox
Use PDF Checkbox	Main	**Create PDF image** checkbox
Voice Number Entry Field	Main	**Voice Number** text box

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Chapter 11

Creating Signatures

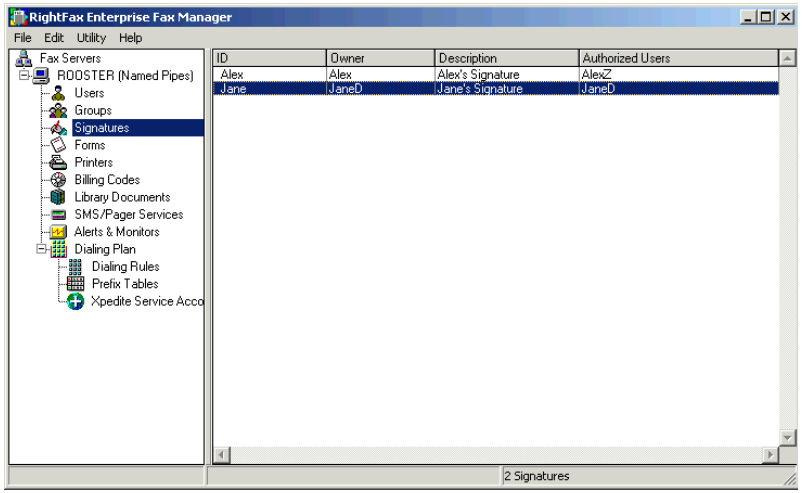
RightFax can personalize users' outbound faxes with graphic images of their signatures. Signature images are created in FaxUtil and stored in the RightFax\SIG folder on the server. Enterprise Fax Manager catalogs all the signatures and maintains the file names, descriptions, and authorized user information.

Note *Signature files are currently not supported in outbound PDF documents.*

Managing Signature Files

To edit or delete signature files, run Enterprise Fax Manager (see "Starting Enterprise Fax Manager" on page 111) and click **Signatures** under the desired RightFax server in the Fax Server Tree.

Figure 11.1 The Server Signatures List



You must create a new signature file in order for it to appear as an object in Enterprise Fax Manager. New signature files are created from the FaxUtil mailbox (see "Creating a New Signature File" on page 145).

Deleting signatures

To delete a signature, select the signature to delete and press DELETE or select **Delete** from the **Edit** menu. By default, you will be prompted for confirmation that you want to delete the signature.

Deleting the signature's reference in Enterprise Fax Manager does not delete the signature file itself. A second confirmation dialog box will ask you if you want to delete the file as well.

Copying signatures from one server to another

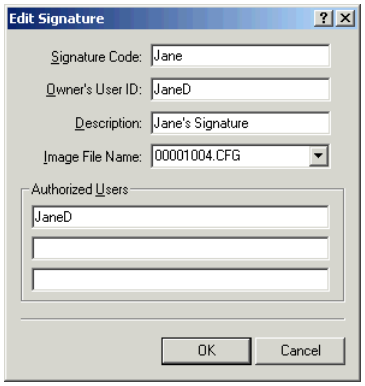
Enterprise Fax Manager can easily copy one or more signatures from one RightFax server to another. Select the signatures you want to copy, and then drag the selection onto another server.

If you copy signature files from a new RightFax server version to an earlier server version, you will lose configuration data that is not supported by the older server (in other words, features on version 8.0 servers will not be available on version 7.0 servers).

Editing Signature File Properties

To edit the properties of an existing signature, run Enterprise Fax Manager, select the signature to edit and press ENTER or select **Edit** from the **Edit** menu. You can also double-click the signature. The **Edit Signature** dialog box opens.

Figure 11.2 The Edit Signatures Dialog Box



Signature Code The name the signature that will be displayed in Enterprise Fax Manager.

Owner's User ID The user ID of the owner of the signature file.

Description A description of the signature file for easy reference in Enterprise Fax Manager.

Image File Name The name of the signature image file. This file name is automatically generated and stored in the RightFax\SIG folder on the RightFax server when the signature file is created. If this box contains an invalid file name, RightFax will not be able to use the signature image.

Authorized Users Up to three RightFax user IDs or group IDs who are authorized to use this signature in addition to the owner of the signature.

Creating a New Signature File

Only users with RightFax administrative access can create signature files. Signature files are created from a fax in a your FaxUtil mailbox. You can scan a signature into your mailbox or fax a signed document to yourself. After the document arrives in your FaxUtil mailbox, follow these steps to create a signature file:

1. In FaxUtil, double-click the fax to view it using the RightFax Fax Viewer.
2. Using the **Select** tool in the Fax Viewer toolbar, click the signature.

   Figure 11.3 The Select tool

3. Select **Store** from the **Fax** menu, and then select **Make Signature**. The **Edit Signature** dialog box opens.

   Enter an ID for the signature in the **Signature Code** box. This must be unique, as it will be the identifying code Enterprise Fax Manager displays in the ID column when viewing the list of signatures. Enter the owner's user ID and a description of the signature. In the **Authorized Users** boxes, list up to three RightFax user IDs or group IDs who are authorized to use this signature in addition to the owner of the signature.

Adding a Signature to a Fax

Signature files are inserted into fax-bound documents using the <SIGNATURE> embedded code. For information on using this and other embedded codes see Appendix A, "RightFax Embedded Codes".

Caution *Signature files will not display properly in documents that have been converted to PostScript.*

Controlling signature placement

Signature images are positioned so that the left-middle point of the signature aligns with the left-middle point of the <SIGNATURE> embedded code in the document. RightFax supports a Windows registry entry that modifies the vertical alignment of new signatures created on the client workstation where the registry value is present.

Table 11a Windows Registry Entry for Vertical Placement of Signature

Category	Value
Key	HKEY_CURRENT_USER\Software\RightFax Client\VWR32
Value	SignaturePositionPercent
Type	DWORD
Data	0–100 (default 35)

Increasing the data for this value causes all newly created signatures to be shifted upwards by a percentage of the height of the signature image (the actual distance depends on the height of the signature). Decreasing the data causes signatures to shift down an equal distance.

This registry value only affects signatures when they are initially created. If you change the data for this value, you will need to recreate each signature that you want the new setting applied to.

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Chapter 12

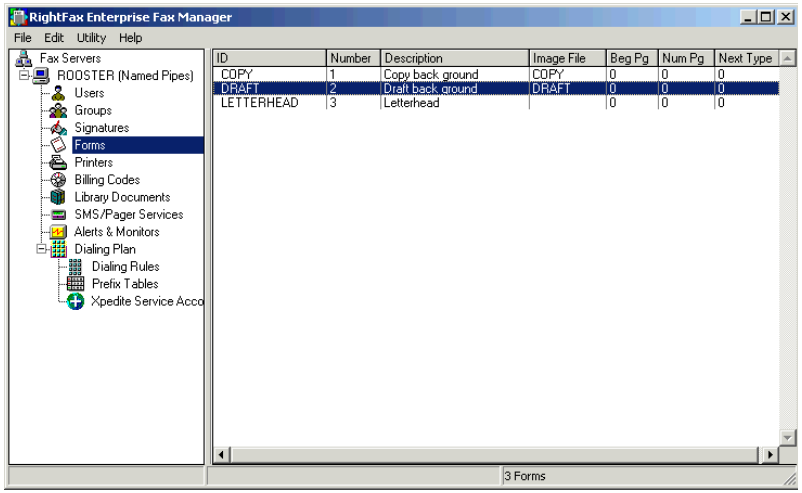
Creating Overlay Forms

Overlay forms are fax image files that RightFax can superimpose over outgoing faxes. These “forms” are typically replicas of documents that your organization uses (for example, company letterhead) and give your faxes the appearance of being printed on the form prior to faxing.

Managing Overlay Form Files

To edit or delete forms, run Enterprise Fax Manager (see “Starting Enterprise Fax Manager” on page 111) and click **Forms** under the RightFax server in the Fax Server Tree.

Figure 12.1 The Forms List



You must create a new form file in order for it to appear as an object in Enterprise Fax Manager. New form files are created from the FaxUtil mailbox (see “Creating a New Overlay Form” on page 149).

Deleting a form

To delete a form, select the form to delete and press DELETE, or select **Delete** from the **Edit** menu. You will be prompted for confirmation that you want to delete the form. Deleting the form's reference in Enterprise Fax Manager does not delete the form file itself. A second confirmation dialog box will ask you if you want to delete the file as well.

Copying forms from one server to another

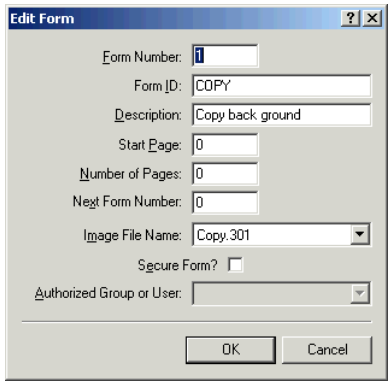
In Enterprise Fax Manager, you can copy one or more forms from one RightFax server to another. Select the forms you want to copy, and then drag the selection to another server.

If you copy overlay forms from a new RightFax server version to an earlier server version, you will lose configuration data that is not supported by the older server (for example, features on version 8.5 servers will not be available on version 8.0 servers).

Editing Form File Properties

To edit the properties of an existing form, run Enterprise Fax Manager, select the form to edit and press ENTER, or select **Edit** in the **Edit** menu. You can also double-click the form. The **Edit Form** dialog box opens.

Figure 12.2 The Edit Form Dialog Box



Form Number The number that identifies the form. This is assigned by RightFax when the form is created.

Form ID This is a unique name that identifies the form.

Description This is a description of the form file for easy reference in Enterprise Fax Manager.

Start Page Specifies the first page of the body of the fax document onto which the form will be placed. The page numbers you specify are absolute, so if the start page for a form is set to 3 and you apply it to a document that only has two pages, none of the document pages will include the form.

Note *Overlay forms are never placed on fax cover sheets. If you enter 1 in the Start Page box, the form will appear on the first page of the body of the fax following the cover sheet.*

Number of Pages The number of fax pages that will be overlaid with the form. To overlay each page of the fax with the form, enter 0 (zero).

Next Form Number Specifies the second form to use, if you want to use two overlay forms in one fax (i.e., different forms for the first page and all subsequent pages of your company letterhead). Specify the form number of the next form file. For more information on using two overlay forms in a single fax, see "Using Two Overlay Forms in One Fax" on page 150.

Image File Name The name of the form image file. This is automatically generated and stored in the RightFax\Papers folder on the RightFax server when the form file is created. If this box contains an invalid file name, RightFax will not be able to use the form image.

Secure Form Restricts the form to specific groups or users. To secure a form, select the **Secure Form** check box. In the **Authorized Group or User** list, click the users or groups authorized to use the form.

Creating a New Overlay Form

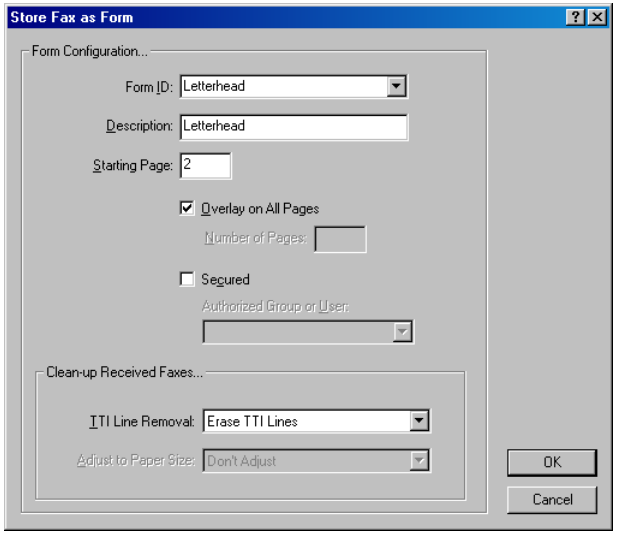
To create new overlay forms in FaxUtil, you must be assigned permission in your user profile (see "The Permissions tab" on page 125).

Form files are created from a faxes in your FaxUtil mailbox. You should always create forms using fine resolution. To set fine resolution as the default in FaxUtil, select **Tools > Options**, and the **Options** dialog box opens. On the **Sending** tab, select the **Use Fine Mode** check box.

To create a new overlay form

1. Create the form image in a word processor or any other application that lets you print to the RightFax fax printer. Send the fax image to your FaxUtil mailbox.
2. Run FaxUtil and click the form in the list of received faxes.
3. Select **Fax > Store as Form**, and the **Store Fax as Form** dialog box opens.

Figure 12.3 The Store Fax as Form Dialog Box



4. In the **Form ID** box, enter a unique ID for the form. The remaining boxes are the same as those in the **Edit Form** dialog box (see "Editing Form File Properties" on page 148).
5. When you have completed the dialog box, click **OK**. The new form will now appear in the **Forms** list in Enterprise Fax Manager.

Using Two Overlay Forms in One Fax

You can configure two overlay forms to appear in a fax. For example, page 1 of the fax may include company letterhead, and pages 2, 3, 4, and 5 may include an invoice form.

After the two forms have been configured following these instructions, then each time you add the first form to an outgoing fax, it will automatically be followed by the second form because they are linked.

To configure two forms for use in a single fax document

1. Create two forms according the instructions in "Creating a New Overlay Form" on page 149.
2. Run Enterprise Fax Manager and edit the properties of the first of the two forms (described on page 148).
3. In the **Edit Form** dialog box, in the **Start Page** box, enter the page number that you want the first form to initially appear on. In most cases, this value will be set to 1.

Note *Overlay forms are never placed on fax cover sheets. If you enter 1 in the **Start Page** box, the form will appear on the first page of the body of the fax, following the cover sheet.*

4. In the **Number of Pages** box, enter the number of pages on which you want the first form to appear. If the first form will only be used on the first page, enter 1.
5. In the **Next Form Number** box, enter the form number of the second form to use. Click **OK** to close the **Edit Form** dialog box.
6. Edit the properties of the second of the two forms.
7. In the **Edit Form** dialog box, in the **Start Page** box, enter the page number that you want the second form to appear on. In most cases, this value will be set to 2.
8. In the **Number of Pages** box, enter the number of pages on which you want the second form to appear. If you want the second form to appear on all subsequent pages, enter 0 (zero).
9. Click **OK** to close the **Edit Form** dialog box.

Adding an Overlay Form to a Fax

Overlay forms are inserted into fax-bound documents using the <FORMTYPE> embedded code or by specifying the form to use in the **Fax Information** dialog box. For information on the **Fax Information** dialog box, see "Using the Fax Information Dialog Box" on page 248.

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Chapter 13

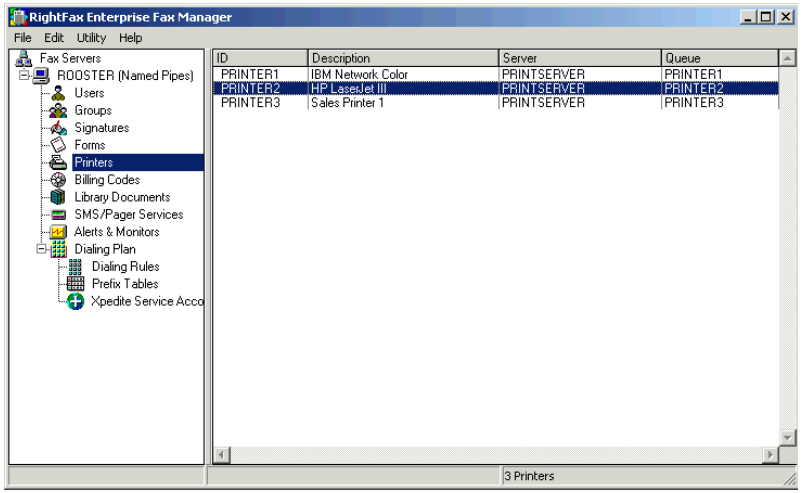
Connecting Printers and Scanners

You can define an unlimited number of network printers in RightFax and make them available for automatic printing of faxes and other automated network print functions. Printers can be added individually or imported in groups from your network. The printers you configure here are not the printers and print-to-fax devices that allow RightFax users to fax documents from native applications. Rather, these are the printers available to RightFax for automatically printing sent and received faxes.

Managing Printers

To add, edit, or delete printers on the RightFax server, run Enterprise Fax Manager (see "Starting Enterprise Fax Manager" on page 111) and click **Printers** under the desired RightFax server in the Fax Server Tree.

Figure 13.1 The Printers List



Adding a printer

To add a new printer to RightFax, press INSERT or select **New** from the **Edit** menu. The **Edit Network Printer** dialog box opens. For information on completing each of the options in this dialog box see "Editing Printer Properties" on page 152.

Deleting a printer

To delete a printer, select the printer to delete and press DELETE or select **Delete** from the **Edit** menu. By default, you will be prompted for confirmation that you want to delete the printer.

Copying printers from one server to another

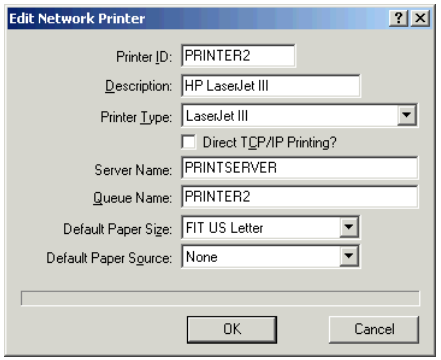
Using Enterprise Fax Manager you can easily copy one or more printers from one RightFax server to another. Select the printers you want to copy, and then drag the selection to another server.

If you copy printers from a new RightFax server version to an earlier server version, you will lose configuration data that is not supported by the older server (for example, features on version 8.5 servers will not be available on version 8.0 servers).

Editing Printer Properties

To edit the properties of an existing printer, run Enterprise Fax Manager, select the printer to edit and press ENTER, or select **Edit** from the **Edit** menu. You can also double-click the printer. The **Edit Network Printer** dialog box opens.

Figure 13.2 The Edit Network Printer Dialog Box



Printer ID The identifier RightFax will use for this printer. This ID should match the printer's network ID to avoid confusion.

Description This is a description of the form file for easy reference in Enterprise Fax Manager. If this box is completed, users will see both the **Printer ID** and **Description** in the **Print** dialog box. If this box is not completed, only the **Printer ID** will be displayed.

Printer Type Sets the printer driver used by the fax server to format faxes printed to this printer. Choose the one that most closely corresponds to your printer. If your laser printer supports both PostScript and PCL5, choose one of the HP LaserJet types rather than PostScript for faster printing.

Direct TCP/IP Printing Allows faxes to be printed directly to an IP port on a printer using the LPR, a TCP/IP utility.

Server Name Indicates on which file server the queue exists. If the queue is in NDS, this should be the value at the top of the tree.

Queue Name Differs depending on your network operating system. On NetWare 3.x, the **Queue Name** should contain the Bindery name of the queue, i.e. “LASER1.” On LAN Server and Windows NT based networks, **Queue Name** should contain the share name of the queue. On NetWare 4.x servers that are using NDS, **Queue Name** should contain the Distinguished Name of the queue object, i.e. “LASER1.SALES.ACME.”

Default Paper Size Sets how the fax server will scale a fax page to fit onto the printable area of a laser printer. This also sets what size paper to select. “None” will not scale the image at all which can result in some portion of the page being truncated. “Fit Letter” causes the fax page to be scaled to fit onto the printable area of U.S. letter size paper (8.5 × 11 in.). “Fit Legal” scales the page to fit onto the printable area of U.S. legal size paper (8.5 × 14 in.). “Fit Letter/Legal” scales the fax to fit on letter size paper if it is 12.5 inches or less, otherwise it will be scaled to fit legal size paper. This last option is useful for firms receiving faxes in a mix of letter and legal sizes and where dual-bin laser printers are used. In such cases, the laser printer will select the appropriate size paper, letter or legal, to correspond to the size of the fax page. “Fit A4” scales the fax to fit onto the printable area of A4 size paper (210 × 297 mm). “Fit A4/Legal” is identical to Fit Letter/Legal, except that the printer will choose between A4 and Legal paper trays.

Note *All laser printers have an unprintable margin area. RightFax takes this into account when scaling and fits the full fax page within the printable region. The result is a small (5%) reduction in the page image when printed on a laser printer. Because fax pages have no unprintable regions, this scaling is necessary to prevent portions of the fax from being lost during printing.*

Default Paper Source Determines which paper tray selection command RightFax will send to the printer. If the **Default Paper Size** is set to “Fit Letter/Legal” or “Fit A4/Legal,” it is recommended that this value be set to “None.” Otherwise the automatic selection of paper trays will not work.

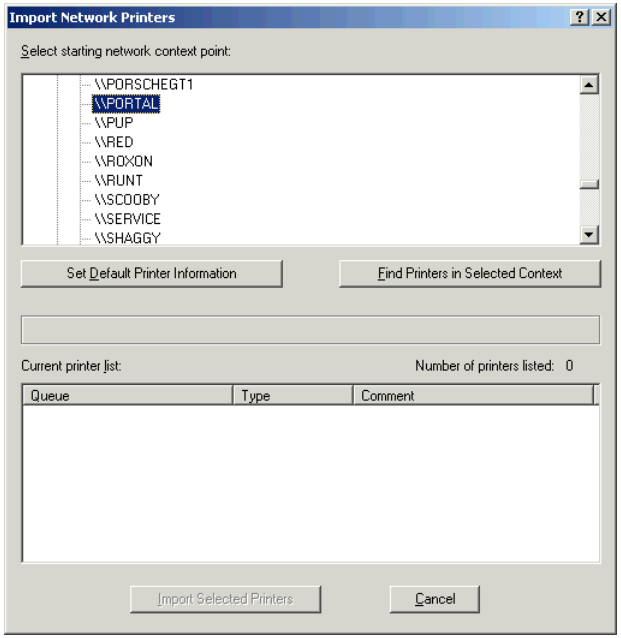
Importing Printers into RightFax

You can import printers from your network into RightFax in groups or you can import all printers.

To import printers

1. In Enterprise Fax Manager, in the **Utility** menu, select **Import Printers from Network**. The **Import Network Printers** dialog box opens.

Figure 13.3 The Import Network Printers Dialog Box



2. Select the network context to import from.
3. Before importing printers, you can specify the characteristics of printers for which to search. You can set the printer driver, paper size, paper type, and whether the printer is set to print to an IP port. Click **Set Default Printer Information**.

4. To search for printers, click **Find Printers in Selected Context**. Depending on the size of the network, this scan can take several minutes. To cancel the search, click **Stop Loading**.
5. The list of available printers appears in the **Current printer list**. Click to select the printers to import, and then click **Import Selected Printers**.

Configuring RightFax to Automatically Print Faxes

Each RightFax user profile can be configured to automatically print sent or received faxes. Before you can configure automatic printing for users, you must set up at least one network printer in Enterprise Fax Manager. For information on adding and configuring network printers see "Adding a printer" on page 152.

Note *The ability to automatically print sent and received faxes can also be configured by individual users in the FaxUtil client application.*

To configure a user to automatically print sent and received faxes, select **Users** in Enterprise Fax Manager and double-click the user ID to edit. Automatically printing sent faxes is configured in the **Outbound Auto-Printing** tab (page 132) and automatically printing received faxes is configured in the **Default Receive Settings** tab (page 132).

Using Scanners with RightFax

If you need to fax a document that has already been printed, you can use either a local or network scanner to scan the document directly into RightFax for fax transmission.

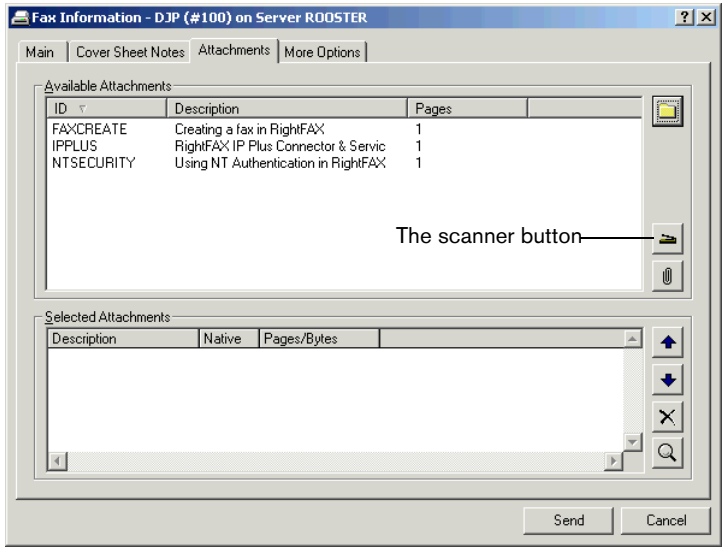
Using a desktop scanner

RightFax can scan documents for fax transmission from any TWAIN32-compliant scanner connected to your computer. To make your local scanner available in RightFax, install the scanner, its drivers, and the TWAIN32 drivers according to the installation instructions provided with the scanner. RightFax automatically detects the TWAIN32 drivers and makes the scanner available when creating a fax document.

To scan a document for fax transmission

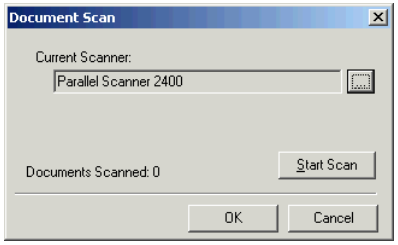
1. Open the **Fax Information** dialog box using any of the methods provided by your RightFax client installation. For information on opening the **Fax Information** dialog box for creating, addressing, and sending fax documents, see Chapter 24, "Creating, Sending, and Deleting Faxes".
2. In the **Fax Information** dialog box, click the **Attachments** tab.

Figure 13.4 The Scanner Button



3. Click the scanner button on the right side of the **Available Attachments** list. The **Document Scan** dialog box opens.

Figure 13.5 The Document Scan Dialog Box



4. Select the scanner to use in the **Current Scanner** box and click **Start Scan**. RightFax opens the scanner's control dialogs. Place the document(s) to scan on the scanner bed and complete the dialog(s) that appear according to the instructions for scanning documents provided with your scanner.

   When the document has been scanned, it will appear in the **Selected Attachments** list in the **Fax Information** dialog box.

Using the Kofax NetScan

RightFax integrates with the Kofax NetScan network scanner (page 42). For more information about configuring these two products to work together, refer to your NetScan documentation.

The Standalone Fax Connector

The Standalone Fax Connector uses a stand-alone fax machine to send faxes through the RightFax server. This makes least-cost routing, automatic retries, and other RightFax features available to conventional fax machines throughout your organization.

Note *The Standalone Fax Connector can be used with Brooktrout TR114 and TR1034 fax boards. TruFax 100 and 200 fax boards do not support this feature.*

Each fax machine connects to the RightFax server on a specific channel or DID extension via a phone line or PBX. When a fax is sent, it is redirected to the RightFax server for processing and transmission. The user is prompted with voice or tones to enter the destination fax number and other required fax recipient information.

Connecting a stand-alone fax machine to the RightFax server

There are several ways to connect a stand-alone fax machine to your RightFax server. In each case, a RightFax user ID is created to host the Standalone Fax Connector and is assigned a unique **Routing Code** value (called the "extension"). The user then dials into this extension from the fax machine (exactly how this is accomplished depends on your phone system) in order to access the RightFax server.

To enable stand-alone fax machine support

1. On the RightFax server, run Enterprise Fax Manager and create a new user. In the **Routing Code** box, enter an extension that will be dedicated to the Standalone Fax Connector. For information on creating a new user, see "Adding a user" on page 122.
2. On the RightFax server, run Regedt32.exe.
3. If using **TR1034** fax boards:
   Under HKEY_LOCAL_MACHINE\Software\RightFax\DocTransport\Transports\Brooktrout\BoardServer, add a new key named "SFC".
   If using **TR114** fax boards:
   Under HKEY_LOCAL_MACHINE\Software\RightFax\BoardServer, add a new key named "SFC".
4. Open the SFC key and add a new value named "Extensions" and set the data type to REG_MULTI_SZ.

5. In the **Multi-String Editor** dialog box, enter the extension that will be dedicated to the Standalone Fax Connector. Separate multiple entries with a carriage return.
6. In the SFC key, add another new value named "Change" and set the data type to REG_DWORD.
7. In the **DWORD Editor** dialog box, set the data to "1" hex. This forces the BoardServer and DocTransport to read the Extensions value.

   After it reads the list of extensions, the BoardServer sets the Change value to "0" hex. When you make a change to the Extensions value in this key, you must set the Change value back to "1" hex to force the BoardServer to re-read the new data.

Using the Standalone Fax Connector

After the Standalone Fax Connector has been enabled, users can access it from any fax machine that can dial in to the extension you have dedicated. Users have the option of dialing their intended recipients directly or entering the ID of a phonebook entry that then dials the recipient(s) listed in that entry. Add individual or group phonebook entries under the user ID that you have designated for the Standalone Fax Connector and assign each entry a numeric ID.

To send a fax using the Standalone Fax Connector

1. Dial the Standalone Fax Connector extension. This number must be listed in the Extensions value in the SFC key in the Windows registry on the fax server. Depending on your Brooktrout fax board configuration, either a tone or voice message will prompt you for the destination fax number.
2. To manually enter a destination fax number, enter the fax number and billing codes using this format:

   FaxNumber*billInfo1*billInfo2#

   Separate the fax number and billing codes using the asterisk [*] key and press the pound [#] key when you are done. If billing codes are not required, they can be left out of the dial string, but you must include a fax number and end by pressing the pound [#] key.

   To use a phonebook entry, enter the numeric ID of the phonebook entry and press the pound [#] key.
3. Another tone or voice prompt will instruct you to begin transmitting the fax. Press the **Start** button on the fax machine. The fax machine will proceed to scan the pages and send the fax to the specified phone number or to the destination(s) in the phonebook entry.

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Chapter 14

Creating Billing Codes

RightFax tracks and reports fax activity using billing codes. Users can be required to enter one or two codes for every fax before it can be sent or deleted. These codes can be validated internally against a master table or externally using a separate application (for example, an accounting program). To validate billing codes internally, you must create a list of valid billing codes in RightFax.

RightFax supports the use of two billing codes for each faxed document. These are referred to as "Billing Code 1" and "Billing Code 2." Your organization can require both billing codes on faxes (such as one code for account number and one for a matter number), one billing code (to track the individual or department sending the fax, for example), or no billing codes.

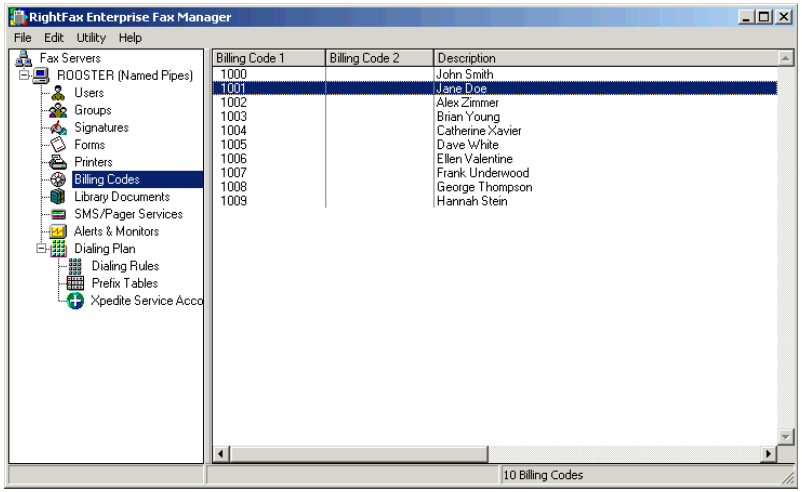
Customizing the Names of Billing Code Fields

For users, the RightFax billing code fields appear in the **Fax Information** dialog box. By default, the names of the billing code fields are "Account" and "Matter." To change these names to meet the needs of your organization, run Enterprise Fax Manager (see "Starting Enterprise Fax Manager" on page 111), select **Customize Cover Sheet Fields** from the **Utility** menu, and click the **Billing Codes** tab. Enter new descriptions for the Billing Code 1 and 2 fields in the description boxes. The new names will appear throughout your RightFax client applications.

Managing Billing Codes

You can create a list of billing codes that is used to validate the codes entered by fax users when sending faxes. To add, edit, or delete billing codes, run Enterprise Fax Manager and click **Billing Codes** under the desired RightFax server.

Figure 14.1 The Billing Codes List



Adding a billing code

To add a new billing code to RightFax, press INSERT, or select **New** from the **Edit** menu. The **Edit Billing Code** dialog box opens. For information on completing each of the options in this dialog box, see "Editing Billing Code Properties" on page 160.

Deleting a billing code

To delete a billing code, select the billing code to delete and press DELETE, or select **Delete** from the **Edit** menu.

Copying billing codes from one server to another

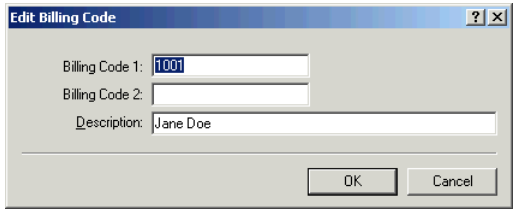
In Enterprise Fax Manager, you can copy one or more billing codes from one RightFax server to another. Select the billing codes you want to copy, and then drag the selection to another server.

If you copy billing codes from a new RightFax server version to an earlier server version, you will lose configuration data that is not supported by the older server (for example, features on version 8.5 servers will not be available on version 8.0 servers).

Editing Billing Code Properties

To edit the properties of an existing billing code, run Enterprise Fax Manager, select the billing code to edit and press ENTER, or select **Edit** from the **Edit** menu. You can also double-click the billing code. The **Edit Billing Code** dialog box opens.

Figure 14.2 The Edit Billing Code Dialog Box



Billing Code 1 and 2 Enter one or two billing codes.

Description Enter a descriptive name for the billing code.

Importing Billing Codes

You can import billing code records from an ASCII text file. This is most useful when systems such as EquiTrac or central databases are used to store a master set of billing codes. Such systems can be programmed to periodically generate a formatted ASCII file that the RightFax server will recognize and process. After such a system is configured, billing code maintenance can be fully automated.

Creating the billing code file

The ASCII billing codes file must be named Codechg.csv and must be located in the RightFax\Worksrv folder.

The file Codechg.csv must be formatted with one complete billing code record per line. The codes themselves cannot contain spaces, but descriptions can. For each record, the codes and description must be separated by commas. You can import new billing codes as well as specify deletions and changes to billing codes. Each billing code record must include a leading field that indicates the desired operation. The leading field (a single character followed by a comma in all cases) can be 'A' indicating an addition, 'C' indicating a change to an existing code, or 'D' indicating that a code should be deleted.

Format Operation,BillInfo1,BillInfo2,Description

Example A,Smith,9054,Harry Smith Inc.
C,Jones,5687,Bob Jones Corp.
D,Smith,2390

(A "delete" line need not contain a description, and any included description will be ignored.)

Configuring RightFax to import billing codes

To configure RightFax to import the ASCII billing code file, run the WorkServer configuration program, select the WorkServer in whose folder you saved the Codechg.csv file, and set a value in the **Billing Code Import Interval** field. This parameter determines the interval in minutes that the WorkServer should check for a new billing code file. At every interval, the WorkServer checks for the file Codechg.csv, in its own folder. If the file exists, the WorkServer imports the additions, changes, and deletions specified in the file. After the entire file is processed, the WorkServer erases Codechg.csv so that it will not be picked up again at the next check.

The WorkServer also produces a log file, Codechg.log, that can be examined to see what codes were imported from the most recent Codechg.csv. The log file is overwritten each time an import is executed, so it will not grow indefinitely.

When writing the input file it is recommended that it not be initially named Codechg.csv. If it is, the WorkServer may attempt to open and process the file before you have finished building it. It is best to use a temporary name (such as Codechg.$$$) to build the file. After all lines have been written to the file, close it and re-name it to Codechg.csv.

Example A batch file can be created that automates this process, for example:

```
j:
cd \rfax\worksrv
getcodes codechg.$$$
ren codechg.$$$ codechg.csv
```

In this example, GETCODES is a program supplied by the user that creates an ASCII file of billing code changes in the required format.

Requiring and Validating Billing Codes

Requiring billing codes on sent faxes

After you have created a list of billing codes, you can require all users to enter one or both billing codes with each fax sent. To require the billing code fields be completed before a fax can be sent, run Enterprise Fax Manager, select **Customize Cover Sheet Fields** from the **Utility** menu, and click the **Sending Required Fields** tab. Select either or both of the **First Billing Info** or **Second Billing Info** check boxes.

Fields that you have marked as required will appear bold in the **Fax Information** dialog box.

Requiring billing codes on received faxes

You can also use billing codes to track information about your received faxes. When you require billing codes on received faxes, the recipient will not be able to delete the fax until the required billing codes have been assigned. To require billing codes on received faxes, run Enterprise Fax Manager, select **Customize Cover Sheet Fields** from the **Utility** menu, and click the **Receive Required Fields** tab. Check either or both the **First Billing Info** or **Second Billing Info** fields.

Users can manually assign billing codes to their received faxes by double-clicking the fax in FaxUtil to open the RightFax viewer and selecting **Assign From Information** in the **Fax** menu. A dialog box appears with fields for entering the necessary billing code information.

Configuring billing code validation

You can configure the RightFax server to validate billing codes against the billing code list in the RightFax server. If a supplied billing code does not match one in your list, it will be rejected and the fax will not send. To configure RightFax to validate billing codes, run Enterprise Fax Manager, select **Customize Cover Sheet**

Fields from the **Utility** menu, and click the **Billing Codes** tab. Check the **Verify Billing Codes for Sent and Received Faxes** option.

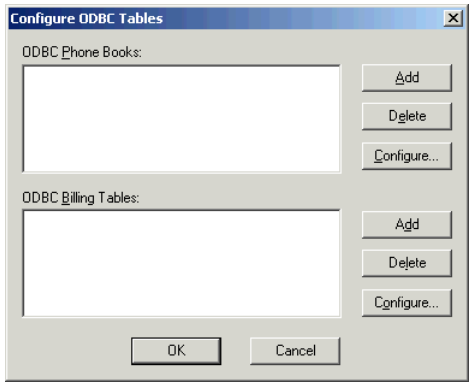
Note *Validating billing codes against an external application requires you to create a custom utility using the RightFax API. For information on customizing your RightFax system with the RightFax API, visit the API section of our Web site at www.captaris.com/implementation_services or contact Captaris for implementation services.*

Accessing ODBC Billing Codes

You can integrate billing codes from an external ODBC source for use in all of your users' outbound faxes. The ODBC source can be created and configured using the ODBC configuration program. Each client workstation must be configured individually to access these billing codes.

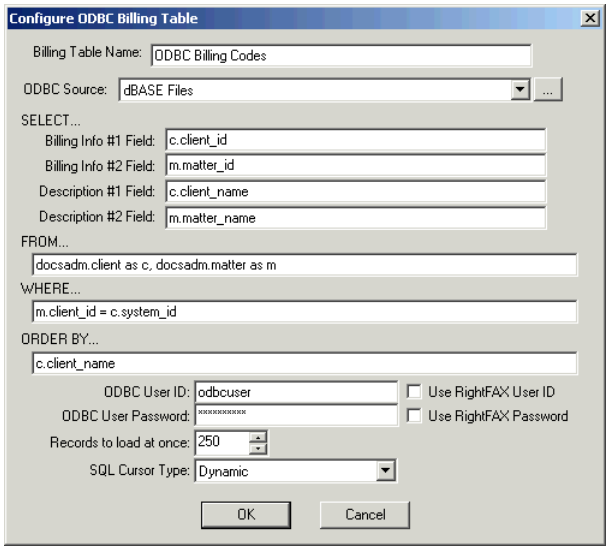
Click the RightFax tray icon in the Windows taskbar. In the shortcut menu, select **ODBC Configuration**. The **Configure ODBC Tables** dialog box opens.

Figure 14.3 The Configure ODBC Tables Dialog Box



Under **ODBC Billing Tables**, click **Add**. The **Configure ODBC Billing Table** dialog box opens.

Figure 14.4 The Configure ODBC Billing Table Dialog Box



Complete each of the boxes according to your ODBC database specifications.

Billing Table Name This is a descriptive name for this billing codes table.

ODBC Source The name of your ODBC billing codes data source.

ODBC Field Names Relates the fields of the ODBC database to the standard RightFax billing code fields. This is done with simple SQL query statements.

ODBC User ID and Password These are the ID and password to access the ODBC database. If the ID and password match those used to log into RightFax, you can check those boxes instead.

Records to Load at Once Limits the number of records displayed at one time during billing code lookup by entering the limit in this box.

SQL Cursor Type Selects an SQL cursor type. In most cases, this option should be set to "Dynamic."

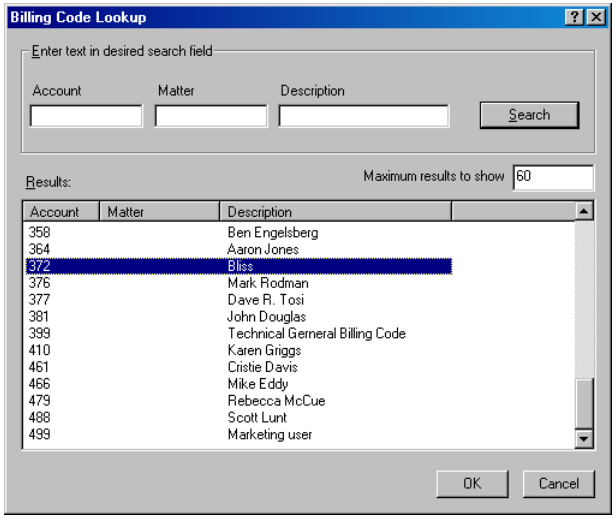
Querying an ODBC billing code list

After you have configured the necessary ODBC information on a user's workstation, that user can access ODBC billing codes when sending faxes.

To look up ODBC billing codes

1. In the **Fax Information** dialog box, click **Lookup** to select RightFax billing codes or a specific ODBC billing code table.
2. Select the ODBC billing code table you created. This opens a list of the ODBC billing codes.

Figure 14.5 The Billing Table Lookup Dialog Box



3. If you limited the number of records displayed at one time in the **Records to Load at Once** box in the **Configure ODBC Billing Table** dialog box, you will see only the specified number of records (or fewer). To view the previous or next batch of codes, click the arrows on the right side of the list.
4. Click the billing code information you want, and click **OK** to enter it in the **Fax Information** dialog box.

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Chapter 15

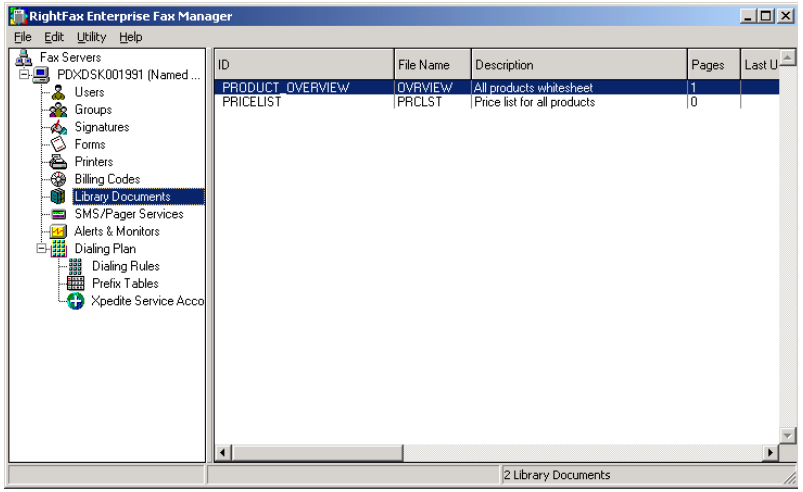
Creating Library Documents

You can store frequently faxed documents (such as company literature, credit applications, or employment forms) in a fax document library for easy retrieval. Library documents are stored in the RightFax\Image folder on the RightFax server formatted for fax transmission. This allows your most frequently faxed documents to be sent as quickly with a minimum of system resources.

Managing Library Documents

To edit or delete library documents, run Enterprise Fax Manager (see "Starting Enterprise Fax Manager" on page 111)and click **Library Documents** under the desired RightFax server in the Fax Server Tree.

Figure 15.1 The Library Documents List



You must create a new library document in order for it to appear as an object in Enterprise Fax Manager. New library documents are created from the FaxUtil mailbox (see "Creating a New Library Document" on page 167).

Deleting a library document

To delete a library document, select the document to delete and press DELETE, or select **Delete** from the **Edit** menu. By default, you will be prompted for confirmation that you want to delete the library document.

Deleting the library document's reference in Enterprise Fax Manager does not delete the document file itself. A second confirmation dialog box will ask you if you want to delete the file as well.

Copying library documents from one server to another

In Enterprise Fax Manager you can copy one or more library documents from one RightFax server to another. Select the library documents you want to copy, and then drag the selection to another server.

If you copy library documents from a new RightFax server version to an earlier server version, you will lose configuration data that is not supported by the older server (in other words, features on version 8.5 servers will not be available on version 8.0 servers).

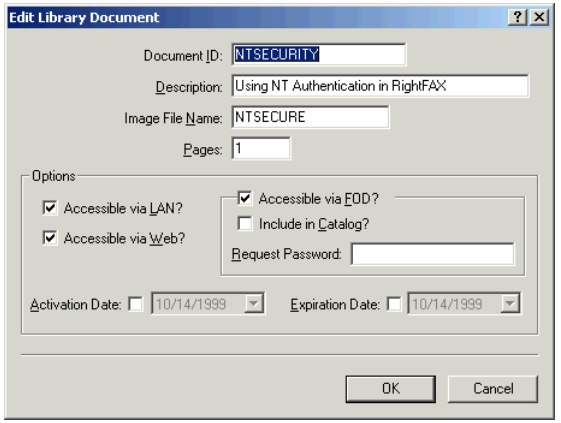
Library document usage statistics

Enterprise Fax Manager keeps a record of each time a library document is sent via Fax-on-Demand, the Web, or local area network, and displays the totals in the right pane of the Enterprise Fax Manager window. To reset these counters back to zero, click the library documents to reset and select **Reset Usage Counts** in the **Edit** menu.

Editing Library Document Properties

To edit the properties of an existing library document, run Enterprise Fax Manager, select the document to edit and press ENTER, or select **Edit** in the **Edit** menu. You can also double-click the library document. The **Edit Library Document** dialog box opens.

Figure 15.2 The Edit Library Document Dialog Box



Document ID This is a unique code that identifies the library document. If you want the library document to be available via the Web or Fax-on-Demand (described in the *RightFax Docs-on-Demand Guide*), you must assign a numeric document ID.

Description This is a descriptive name for the library document.

Image File Name The name of the library document file. This is generated automatically when the library document is created and should typically never need to be changed. All library document files are saved in the RightFax\Image folder on the RightFax server.

Pages The number of pages in the document.

Accessible via LAN Makes the library document available on the local area network for faxing from client workstations.

Accessible via Web Makes the library document available to users via your Web site using Web Fax Tools.

Accessible via FOD Makes the library document available to users via touch tone phone using Fax on Demand.

Include in Catalog Includes this document in the Fax on Demand catalog of available faxes.

Request Password The numeric password that is required by Fax on Demand when users request this document.

Activation Date The date that the library document becomes available for use. Click to select the check box and select the activation date. To make the library document available immediately, do not select this option.

Expiration Date The date that you want the library document to become unavailable for use. Click to select the check box and select the expiration date. If you do not select this option, the library document will available indefinitely.

Creating a New Library Document

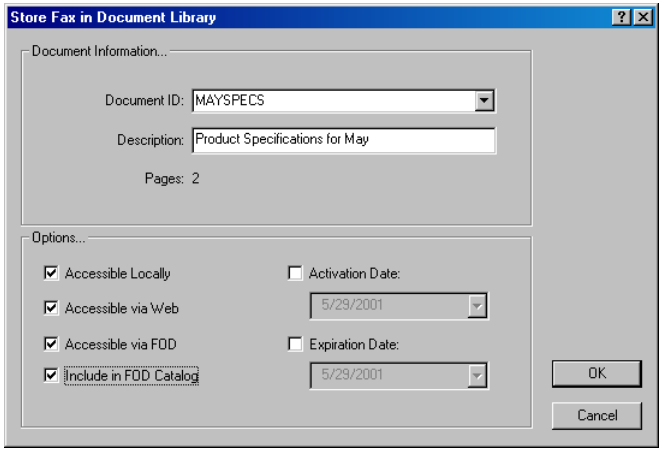
To add new library documents in FaxUtil, you must be assigned permission in your user profile (see "The Permissions tab" on page 125).

Library documents are created from a fax in your FaxUtil mailbox. You should always create library documents using **Fine** resolution. To set fine resolution as the default in FaxUtil, select **Tools > Options**, and the **Options** dialog box opens. On the **Sending** tab, select the **Use Fine Mode** check box.

To create a new library document

1. Create the document in a word processor or other application that lets you print to the RightFax fax printer. Send the fax image to your FaxUtil mailbox.
2. Run FaxUtil and click the document in the list of received faxes.
3. In the **Fax** menu, click **Store in Library**. The **Store Fax in Document Library** dialog box opens.

Figure 15.3 The Store Fax in Document Library Dialog Box



4. Specify a **Document ID** and **Description** for the new library document. These fields and the remaining options are the same as the **Edit Library Document** dialog box (page 166).
5. When you have completed the dialog box, click **OK**. The new document will now appear in the **Library Documents** list in Enterprise Fax Manager.

Automating the creation of new library documents

You can also automate the creation of new library documents using the <NEWLIB> and <NEWLIB2> embedded codes. For information on using these and other embedded codes see Appendix A, "RightFax Embedded Codes".

Faxing a Library Document

Library documents are sent as attachments to faxes. To attach a library document, you have the following options:

- When creating a new fax in FaxUtil, in the **Fax Information** dialog box, click the **Attachments** tab and select the library documents to include.
- When creating a new fax using the **Quick Fax/Broadcast** command from the tray icon, click the **Attachments** tab and select the library documents to include.
- You can also add library documents to fax-bound documents using the <LIBDOC> and <LIBDOC2> embedded codes. For information on using these and other embedded codes see Appendix A, "RightFax Embedded Codes".

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Chapter 16

Adding SMS and Pager Services

You can configure the RightFax server to send e-mail, pager messages, or SMS messages to fax users and administrators to alert or notify them of specific RightFax events. To send these alerts and notifications from RightFax, you must create a list of available services and providers.

If you will be configuring SMS notifications, you must have installed and configured the RightFax Push-Proxy Gateway. The RightFax Push-Proxy Gateway is installed as an optional component on the RightFax server. If you did not select the Push-Proxy Gateway option when you ran the RightFax server installation, it must be installed now.

To install the RightFax Push-Proxy Gateway

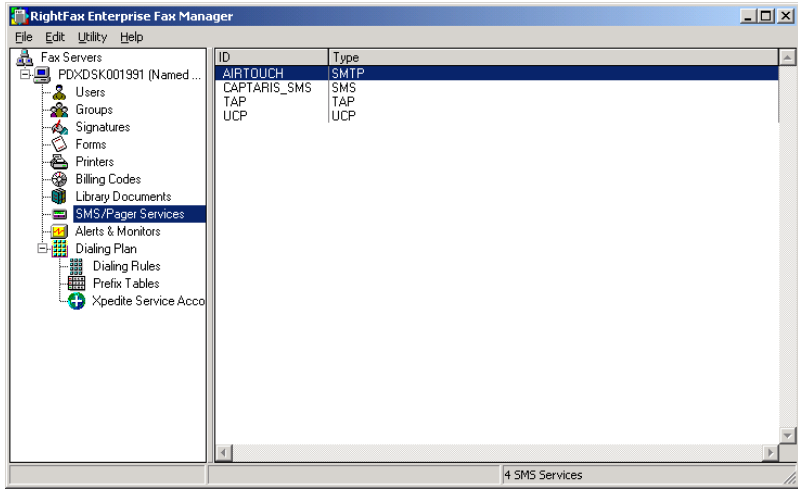
1. Run Add/Remove Programs from Windows Control Panel, highlight **RightFax Product Suite**, and then click **Change**.
2. Click **Next** at the opening screen. This opens a list of installation options. Select **Modify** and click **Next**.
3. On the **Setup Features** screen, expand the **RightFax Server** category and select **Push Proxy Gateway** for install. Click **Next**.
4. Complete the Installation Wizard according to the instructions in the *RightFax Installation Guide*.
5. When you are prompted to reboot the computer, click **Yes**.
6. After the computer restarts, select **Start > Programs > Enterprise Fax Manager**.
7. In the Enterprise Fax Manager application, click the name of the RightFax server to configure in the tree in the left pane. A list of services appears at the lower-right pane of the window.
8. In the **Service Name** list, double-click **RightFax DocTransport Module**. The **Transport Configuration** dialog box opens. (The DocTransport configuration program is described more thoroughly in Chapter 5, "Configuring the DocTransport and BoardServer Modules".
9. Click the **Add Transport** button. In the **Select Transport** dialog box, select the option **SMS Via Push-Proxy Gateway** in the left pane and the click **Select**. This will add SMS functionality to the RightFax server.
10. Close the DocTransport configuration program and select **Start > Programs > Enterprise Fax Manager**.
11. In the Enterprise Fax Manager application, select **Dialing Rules** under the local fax server in the left pane.
12. Press [INSERT] to add a new dialing rule. Click the **Destination** tab and select **SMS** in the **Send Via Transport** box.
13. Close Enterprise Fax Manager.

After it is installed, the Push-Proxy Gateway must be configured for your organization's specific needs. For information on configuring the RightFax Push Proxy Gateway, refer to the *RightFax Push-Proxy Gateway Guide*.

Managing SMS and Pager Services

You must create a pager service configuration for each type of pager service your users subscribe to. To add, edit, or delete pager services, run Enterprise Fax Manager and click **SMS/Pager Services** under the desired RightFax server in the Fax Server Tree.

Figure 16.1 The SMS/Pager Services List



Adding SMS and pager services

To add a new pager service to RightFax, press INSERT or select **New** from the **Edit** menu. The **Edit SMS/Pager Service Definition** dialog box opens. For information on completing the options in this dialog box, see "Editing SMS and Pager Service Properties" on page 171.

After you have created a list of SMS and pager services, you can configure fax user notifications and administrative alerts. Fax status notifications and how they will be delivered are configured individually for each RightFax user (described on page 129). A default notification method can also be configured for groups, (described on page 138). Fax server status alerts for administrators can be configured for individual administrative users (described on page 130), or you can use the RightFax Alerting and Monitoring service to create and customize a list of server statistics to monitor and alert on (described in Chapter 17, "Using the Alerting and Monitoring Service").

Users can be paged via SMTP e-mail (requiring Internet connectivity), via TAP or UCP protocols (requiring any TAPI-compatible or AT-compatible modem), or send SMS messages (requiring the Captaris Push-Proxy Gateway).

Deleting SMS or pager services

To delete a pager service, select the service to delete and press DELETE, or select **Delete** from the **Edit** menu.

Copying SMS and pager services from one server to another

In Enterprise Fax Manager, you can copy one or more pager services from one RightFax server to another. Select the pager services to copy, and then drag the selection to another server.

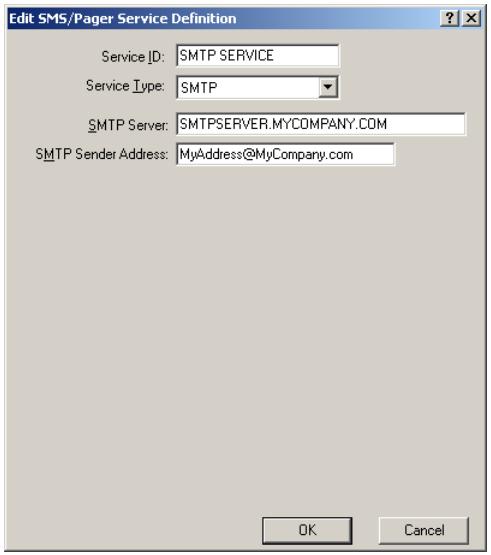
If you copy pager services from a new RightFax server version to an earlier server version, you will lose configuration data that is not supported by the older server (in other words, features on version 8.5 servers will not be available on version 8.0 servers).

Editing SMS and Pager Service Properties

To edit the properties of an existing service, select the pager service to edit and press ENTER, or select **Edit** from the **Edit** menu. You can also double-click the service. Each type of service you add has different configuration settings. the sections that follow describe each type of service and the required configuration options.

Configuring SMTP services

Figure 16.2 SMTP service configuration



Service ID This is a descriptive ID for the service provider or type of service. When you edit and change the service ID of a listed pager service, Enterprise Fax Manager creates a copy of the service with the new name, rather than re-naming the service.

Service Type Select **SMTP** as the service type.

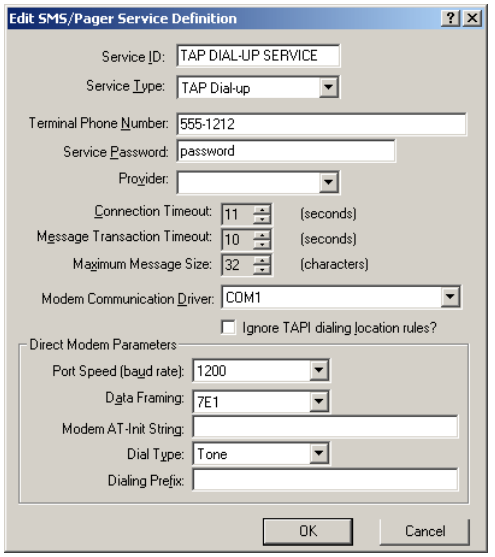
SMTP Server The name of your service provider's SMTP server.

SMTP Sender Address This is an SMTP mail address from which the page will be sent. Some SMTP message servers *require* the sender's SMTP address in order to process transactions.

Configuring TAP and UCP Dial-up services

TAP dial-up and UCP dial-up both have the same configuration options.

Figure 16.3 TAP and UCP dial-up service configuration



Service ID This is a descriptive ID for the service provider or type of service. When you edit and change the service ID of a listed pager service, Enterprise Fax Manager creates a copy of the service with the new name, rather than re-naming the service.

Service Type Select **TAP Dial-up** or **UCP Dial-up** as the service type.

Terminal Phone Number This is your service provider's modem phone number (for TAP and UCP messaging only).

Service Password The password your service provider requires to access their TAP or UCP messaging systems (if any).

Provider Specify the specific provider for your UCP or TAP service. If your provider is not listed here, select "None."

Connection Timeout The length of time, in seconds, for RightFax to successfully connect to the TAP or UCP messaging system. If a timeout occurs, RightFax will abandon the call and no message will be sent.

Message Transaction Timeout The length of time, in seconds, for RightFax to successfully send the message to the TAP or UCP messaging system. If a timeout occurs, RightFax will abandon the call and no message will be sent.

Maximum Message Size The maximum number of characters allowed by your service provider for pager or SMS messages.

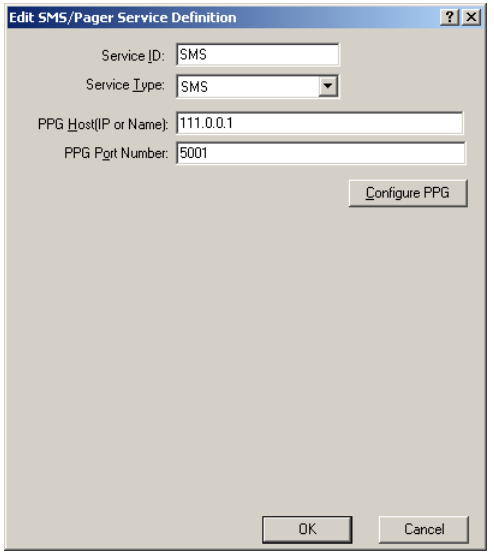
Modem Communication Driver Specify the COM port for the modem on the RightFax server. If you have installed one or more TAPI modems on your RightFax server, you can select from those modems as well. If you select a TAPI modem, the **Direct Modem Parameters** settings (described later) will be unavailable because those settings will be taken from your TAPI modem configuration on the RightFax server.

Ignore TAPI Dialing Location Rules Ignores any specified dialing location rules (such as add 9 to dial out) if you have specified a TAPI modem in the **Modem Communication Driver** box (described earlier).

Direct Modem Parameters These parameters are configured according to your modem type and phone system dialing requirements. If your pager or SMS service provider recommends a baud rate for connecting to their TAP or UCP systems, enter the baud rate in the **Port Speed** box.

Configuring SMS services

Figure 16.4 SMS service configuration



Service ID This is a descriptive ID for the service provider or type of service. When you edit and change the service ID of a listed pager service, Enterprise Fax Manager creates a copy of the service with the new name, rather than re-naming the service.

Service Type Select **SMS** as the service type.

PPG Host (IP or Name) Use the default value for the PPG Host.

PPG Port Number Use the default value for the PPG Port Number.

Logging SMS and Pager Alerts

SMS and pager alerts are logged in the Windows Event Log with a special event identifier. The purpose of this identifier is to allow Windows monitoring systems to identify when an alert has

occurred without monitoring the contents of the event entry. To filter on these events, filter for Source = “RightFax Server Module” and Category = “Administrative Alert.”

At least one person must be set up to receive an alert of each type to cause this logging to occur. If no users are set up to receive alerts, then none will be logged in the NT Event Log using the special event identifier.

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Chapter 17

Using the Alerting and Monitoring Service

The RightFax Alerting and Monitoring service lets you monitor a set of server statistics that you define in Enterprise Fax Manager and receive alerts relating to those statistics. To use the RightFax Alerting and Monitoring service, you must first install and configure the service, and then define the statistics to monitor and their alert thresholds.

Installing the Alerting and Monitoring Service

The Alerting service is automatically installed and enabled on all RightFax Enterprise servers version 8.7 and higher.

Installing the Alerting and Monitoring service on remote computers

Because the RightFax Alerting service is designed to provide information about and send alerts relating to the RightFax server, you may choose to run the Alerting service on a computer other than the RightFax server. When the Alerting service is installed on a remote computer, it will continue to operate and send alerts even if the RightFax server shuts down or experiences other problems.

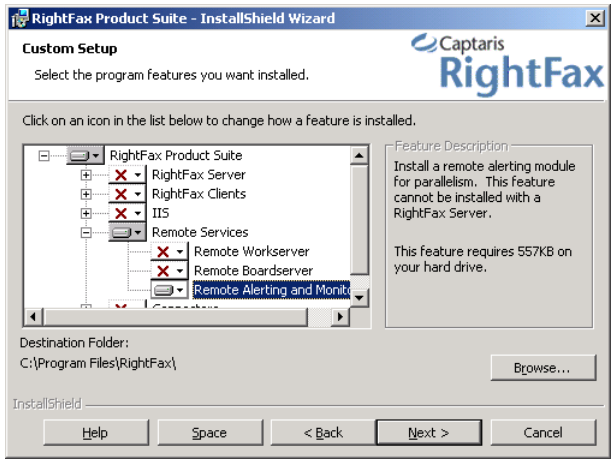
When the Alerting service is installed on a remote computer, all of the configuration for the service and the individual alerts is managed on the RightFax server that the service will be monitoring. No additional configuration on the remote computer is required.

To install the RightFax Alerting service on a remote computer

1. Make sure that the Alerting service is installed and enabled on the RightFax server that you will be monitoring. In addition, you must create a share of the Program Files\RightFax folder on the RightFax server that is accessible by the computer that will be running the remote service. If either of these requirements are not met, the remote installation will fail.
2. Log on to the remote computer using an ID with Windows administrative access.
3. Insert the RightFax server CD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the CD and run AutoRun.exe.
4. In the menu of install options, select the option to install the RightFax product suite. The RightFax install wizard opens.
5. Click **Next** at the opening screen to view the RightFax license agreement. You must accept the license agreement in order to continue the installation. Click **Next**.
6. Enter your name, organization name, and your product serial number when prompted. Your product serial number is printed on a label attached to the product box. Click **Next**.
7. On the **Setup Type** screen, select **Custom** and then click **Next**.

8. Expand the tree of install components. Remove the install option for all components except **Remote Alerting and Monitoring** under **Remote Services**. Click **Next**.

Figure 17.1 The Remote Alerting and Monitoring install option



9. When prompted for a RightFax server name, enter the name of the server that you want to monitor. Click **Next**.
10. Click **Install**. Because the remote alerting service pulls all of its configuration information from the specified RightFax server, no additional configuration is required on the remote computer.
11. The Alerting and Monitoring service will appear in Enterprise Fax Manager after it has been configured (described in the next section.)

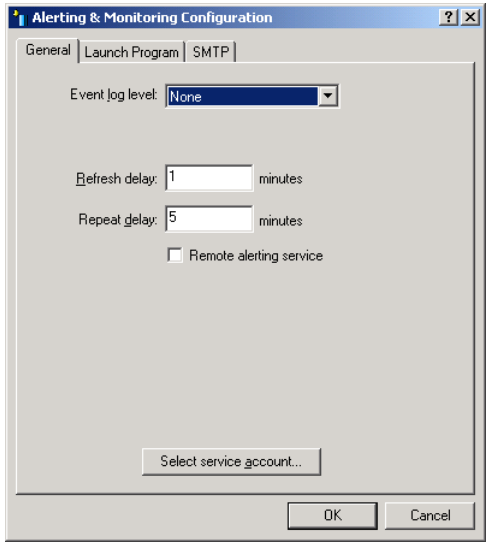
Configuring the RightFax Alerting Service

To configure the Alerting and Monitoring service, open Windows Control Panel and double-click **RightFax Alerting Monitoring**. The **Alerting & Monitoring Configuration** dialog box opens.

The rest of this section describes the options on each of the tabs on this dialog box.

The Alerting and Monitoring Configuration General Tab

Figure 17.2 The Alerting & Monitoring Configuration General tab



Event log level Specify the level of information logged in the Application Event Log under the service name "RightFax Alerting Module." You can select the following options:

- **None.** No information is saved.
- **Terse.** Records critical errors only.
- **Normal.** Records errors and major events only.
- **Verbose.** Records all significant events and is most useful for tracking and resolving problems.

Caution *If you leave this value set to "Verbose" for long periods of time, the Event Log can become full which may prevent new events from being logged.*

Refresh delay Specify the frequency, in minutes, that the Alerting service will poll the RightFax server for statistics.

Repeat delay Specify the frequency, in minutes, that alerts will be sent when statistic thresholds are met.

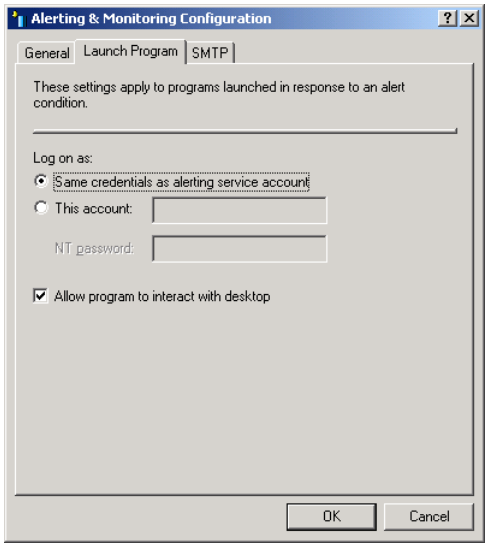
Remote alerting service This option indicates that the Alerting service will operate on a computer separate from the RightFax server. If you select this option, the Alerting service will not be started automatically by the Server module. For more information on installing and running the Alerting service remotely, see "Installing the Alerting and Monitoring service on remote computers" on page 175.

Select service account The RightFax Alerting service logs on to the network by default using the local system account. Click this button to optionally specify a different Windows user account for the service to use. If you want the Alerting service to authenticate to the RightFax server using NT authentication, you must select a Windows user account that has a corresponding RightFax user with NT authentication enabled.

When you select this option, the **Select service account** dialog box opens. For information on how to complete the options on this dialog box, see "Selecting a Service Account" on page 40.

The Alerting and Monitoring Configuration Launch Program Tab

Figure 17.3 The Alerting & Monitoring Configuration Launch Program tab



The RightFax Alerting service lets you optionally run a program (such as a batch file or other process) when thresholds for monitored statistics are reached. The options on this tab let you configure how these programs will be launched by the Alerting service.

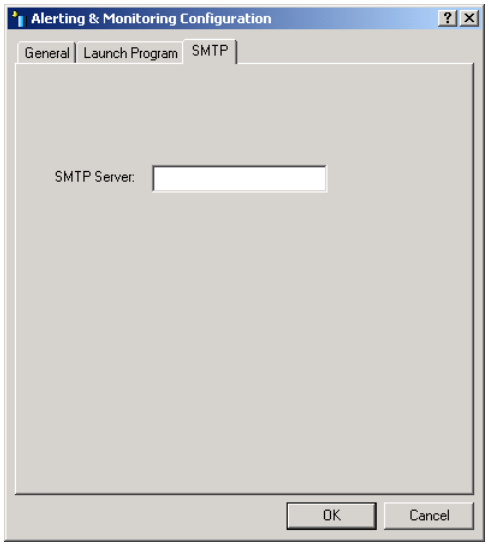
Log on as Programs launched by the Alerting service require a Windows user account in order to access the network. Select one of the following options:

- **Same credentials as alerting service account.** Programs launched by the Alerting service will use the same user account information as the Alerting service.
- **This account.** Specify a Windows user account other than that used by the Alerting service. If you select this option, you must also enter the password for the specified user account in the **NT password** box.

Allow program to interact with desktop Specifies whether the program launched will be accessible from the Windows desktop and usable by whomever is logged on when the service is started.

The Alerting and Monitoring Configuration SMTP Tab

Figure 17.4 The Alerting & Monitoring Configuration SMTP tab

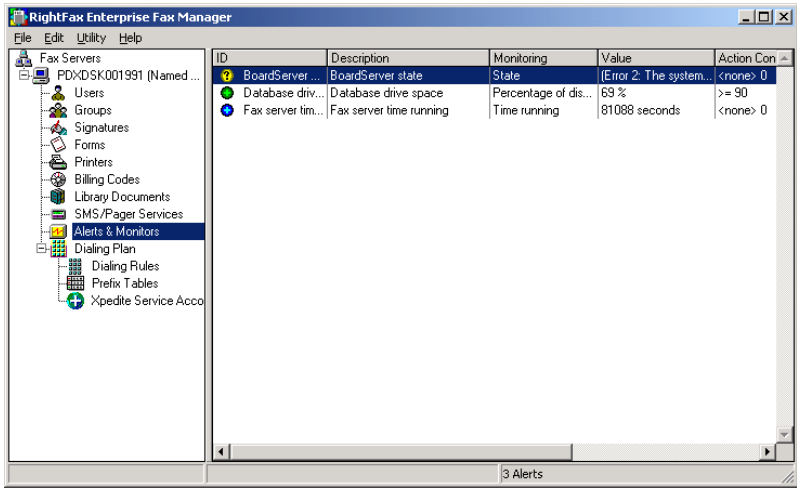


The RightFax Alerting service lets you optionally deliver alerts as e-mail messages via SMTP when thresholds for monitored statistics are reached. In the **SMTP Server** box, enter the name of the SMTP server that will transport these alerts. The e-mail addresses to which alerts will be sent are configured for each individual alert in Enterprise Fax Manager (described in the next section).

Defining the Statistics to Monitor and their Alert Thresholds

To create, edit, or delete individual alerts, run Enterprise Fax Manager (see "Starting Enterprise Fax Manager" on page 111) and click **Alerts & Monitors** under the desired RightFax server in the Fax Server Tree.

Figure 17.5 The Alerts and Monitors List



The alerts and monitors that you create are displayed when you click **Alerts & Monitors** in Enterprise Fax Manager. Each monitor is preceded by a colored icon to indicate its current status. These icons are:

- **Yellow.** Indicates an error retrieving the value of the statistic.
- **Blue.** Indicates that the statistic is being monitored but no alert has been set.
- **Green.** Indicates that the statistic that has an associated alert condition, but the condition has not been met.
- **Red.** Indicates that the statistic that has an associated alert condition, and the condition has been met.

The current value for the statistic you are monitoring is displayed in the **Value** column. Not all monitored statistics can be configured to deliver an alert. Monitored statistics that are configured to deliver alerts are indicated by a green icon in the **ID** column. Statistics that cannot be configured to deliver an alert are indicated by a blue icon. Statistics that cannot be determined due to failure of the monitored service or other problems are indicated by a yellow icon.

Adding new alerts

To create a new alert, press INSERT or select **New** from the **Edit** menu. The **Alert Properties** dialog box opens. For information on completing each of the options on each tab see "Editing Alert Properties" on page 179.

Deleting alerts

To delete an alert, select the alert to delete and press DELETE or select **Delete** from the **Edit** menu. You will be prompted for confirmation that you want to delete the alert.

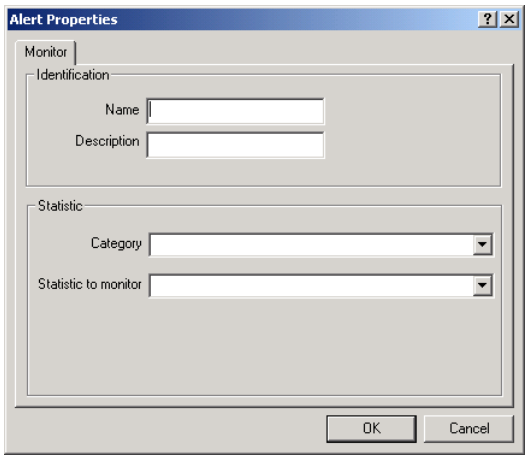
Copying alerts from one server to another

In Enterprise Fax Manager, you can copy one or more alerts from one RightFax server to another. Select the alerts you want to copy, and then drag the selection to another server in the Fax Server Tree. If you copy alerts from a new RightFax server version to an earlier server version, you will lose any configuration data that is not supported on the older server.

Editing Alert Properties

To edit the properties of an existing alert, run Enterprise Fax Manager, select the alert to edit and press ENTER, or select **Edit** from the **Edit** menu. You can also double-click the alert. The **Alert Properties** dialog box opens.

Figure 17.6 The Alert Properties Monitor Tab



Some of the statistics that you configure in this dialog box do not support alerts. These statistics can be configured entirely on the **Monitor** tab. If you select a statistic for which an alert can be configured, two additional tabs, **Actions** and **Message**, will appear on this dialog box. These tabs are described later in this section.

Name This is the name of the alert that will appear under the **ID** column in Enterprise Fax Manager.

Description This is the alert description that will appear under the **Description** column in Enterprise Fax Manager.

Category Alerts are divided into several categories. The statistics that you can monitor (selected in the **Statistics to monitor** box) will differ depending on the category you select. Select from the following options:

- **Fax Server.** Statistics related to activity and events on the RightFax server.
- **Database.** Statistics related to the RightFax database.
- **Workserver.** Statistics related to WorkServers and the processes they control.
- **Gateway.** Statistics related to e-mail gateways.
- **Local BoardServer.** Statistics related to the BoardServer service on the RightFax server.
- **All BoardServers.** Statistics related to the local BoardServer and any remote BoardServer services.
- **RPC Server.** Statistics related to the RPC server which coordinates communication between the RightFax server and other resources on the network.
- **Paging Server.** Statistics related to the paging server used to send notifications via SMS and pages.

Statistic to monitor Select the statistic you want to monitor. The statistics that you can monitor will differ depending on the category you select. For a description of each statistic in this list, see Appendix D, "Alerting and Monitoring Statistics". Depending on the statistic you select, additional options may appear below the **Statistic to monitor** box. These additional options must be completed in order to correctly define the statistic. For a definition of these options, click the **[?]** icon in the title bar and then click on the option to define.

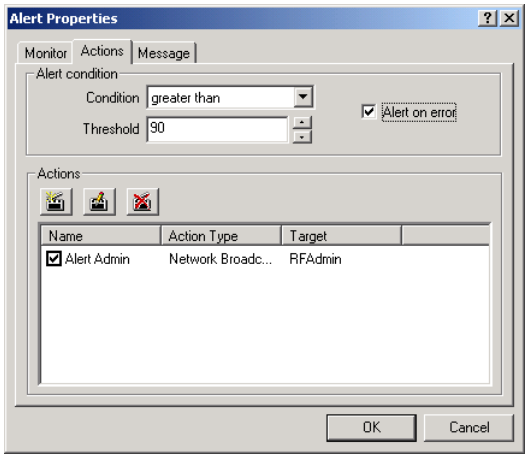
Caution *Alerting statistics that allow you to specify a fax channel number require that you start numbering from 1. This differs from the BoardServer configuration which starts numbering channels with 0 (zero). If you want to monitor the first fax channel, you must specify channel 1, even though it is numbered as channel 0 in the BoardServer. If you specify channel 0 in the alerting statistics to monitor, it will be changed automatically to channel 1.*

The Actions tab

When you select a statistic on the **Monitor** tab for which an alert can be generated, two additional tabs will appear on the **Alert Properties** dialog box: **Actions** and **Message**. See Appendix D, "Alerting and Monitoring Statistics" for a list of statistics that support alerts. You must complete the options on both of these tabs in order to generate an alert.

The options on the **Actions** tab let you define the conditions and thresholds under which an alert will be generated, as well as the alert action to take when a statistic's threshold is met.

Figure 17.7 The Alerting Properties Actions tab



Condition Select the operator by which the threshold value will be evaluated.

Threshold Specify a threshold value. An alert will be generated only if the condition you select meets this threshold value.

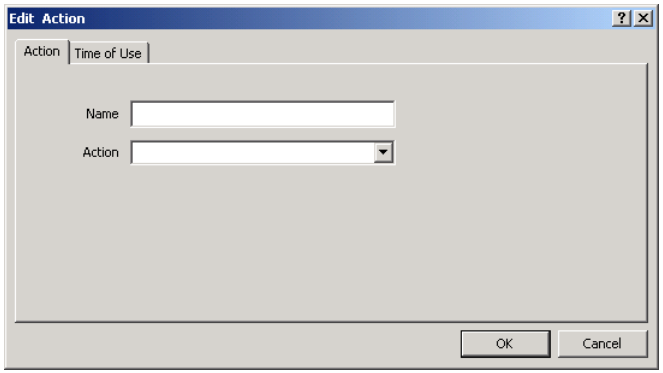
Alert on error If this option is selected, an alert will be generated if the value for the statistic cannot be generated due to errors or other problems with the RightFax service being polled.

Actions The options in this group box let you create, edit, and delete alert actions that will be taken when the statistic threshold is met. You can configure multiple actions for each alert. Follow these steps to create a new alert action:

To create a new alert action

1. Click the **New Action** button in the **Actions** group box. This opens the **Action** tab of the **Edit Action** dialog box.

   Figure 17.8 The Edit Action dialog box Action tab

2. In the **Name** box, type a name for the alert to create.

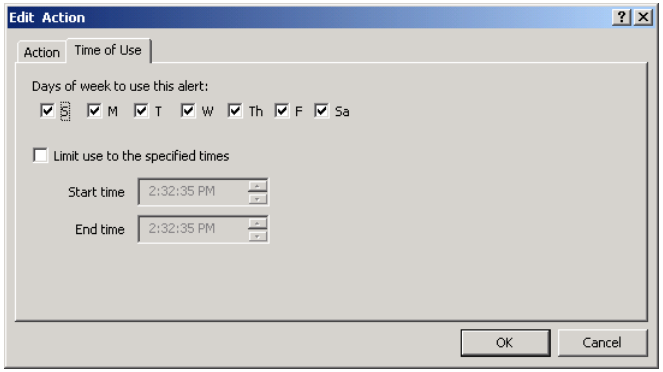
3. In the **Action** box, select the type of alert to send. Alerts can be sent using these four methods:
   - **Network Broadcast.** The network will pop up a message on the specified users computer.
   - **Program.** The RightFax Alerting service lets you optionally run a program (such as a batch file or other process) when thresholds for monitored statistics are reached. A specified program will be launched.
   - **SMS.** A message will be sent to an SMS-capable device such as a cell phone or PDA.
   - **SMTP.** An e-mail message will be sent to a specified user via an SMTP server.

Important *If you are using Windows 2003 and wish to use Network Broadcast notifications, you must open the Control Panel and enable the Messenger service, which is disabled by default.*

Depending on the type of alert action you select, additional options will appear below the **Action** box. These additional options must be completed for the alert to successfully send. For a definition of each of these options, click the **[?]** icon in the title bar and then click on the option to define.

4. When all of the options on the **Action** tab have been completed, click the **Time of Use** tab.

Figure 17.9 The Edit Action Time of Use tab

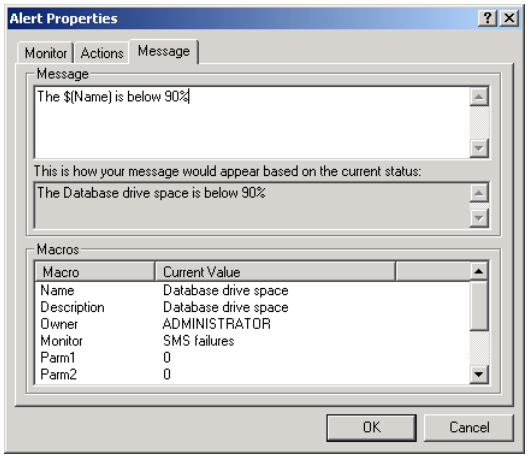


5. To limit the alert to occur only on specific days, select the active days under **Days of the week to use this alert**.
6. If you want to limit the alert to occur only at specific times, select the **Limit use to the specified time** option, and then select a start and end time.
7. Click **OK** to save the alert. The new alert will appear in the list of alerts on the **Actions** tab of the **Alert Properties** dialog box.
8. To enable the alert, click the check box next to the alert name in the list of alerts.

The Message tab

The **Message** tab on the **Alert Properties** dialog box only appears if a statistic you select in the **Statistic to monitor** box supports alerts. See Appendix D, "Alerting and Monitoring Statistics" for a list of statistics that support alerts. The options on this tab let you define the message text of the alert that will be sent.

Figure 17.10 The Alerting Properties Message tab



Message Enter the message text of the alert. You can use any combination of text and macros from the **Macros** list. An example of the alert message will be displayed in the box below this option.

Macros This is a list of macros that can be included in your message text. To add a macro to the message, place the cursor in the **Message** box where you want the macro text to appear and then double-click the macro in this list.

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Chapter 18

Using SNMP Alerting

The RightFax SNMP Alerting feature collects status data from the RightFax server and returns it to a monitoring application for processing and reporting. SNMP Alerting also actively sends status messages and alerts to your network monitor application for realtime monitoring of RightFax processes. RightFax alerts are divided into four severities: Critical, Error, Warning, and Informational, and alerts can be enabled or disabled according to their severity. The RightFax SNMP Alerting feature also allows RightFax services to be stopped and restarted directly from your network monitor application.

To use SNMP Alerting, the Microsoft SNMP service must be installed on both the RightFax server and on the network server that will monitor messages.

To install the Microsoft SNMP Service

If the SNMP service has not already been installed on the RightFax server, follow these steps:

1. On the RightFax server, select the **Network** program in Windows Control Panel, and then click the **Services** tab.
2. If **SNMP Service** does not appear in the **Network Services** list, click **Add**.
3. Click **SNMP Service** and click **OK**. You will be prompted to insert your Windows CD. Insert the CD, specify the drive letter of your CD-ROM drive, and click **Continue**.
4. Once the SNMP service has been installed, close the **Network** dialog box.

Configuring the SNMP Service on the RightFax Server

To configure the SNMP service properties

1. On the RightFax server, select the **Network** program in Control Panel, and then click the **Services** tab.
2. Double-click **SNMP Service** in the list of network services, and then click the **Traps** tab.
3. In the **Community Name** box, add the community name **Public**.
4. In the **Trap Destination** box, enter the IP address of each machine on your network where you want to send RightFax SNMP alerts (each machine used for network monitoring). RightFax alerts can be sent to an unlimited number of network monitoring stations on your network. Click **OK**.

Configuring the Network Monitor Application

Before it can receive SNMP alerts from the RightFax servers, your organization's network monitor application must be configured to recognize the RightFax SNMP Alerting Management Information Base (MIB) variables and trap definitions.

In the network monitor, execute the appropriate command(s) to load new SNMP MIB variables and trap definitions. The MIB variables for RightFax SNMP Alerting are located in a file called Avtc.mib and the trap definitions are located in Rftrapd.conf. Both of these files are installed by default to the RightFax server in the RightFax\SNMP folder.

RightFax includes a utility that automates this configuration for HP OpenView Network Node Manager. To automatically load the MIB variables and trap definitions in Network Node Manager, run the file Rfhpov.bat from a command line on the Network Node Manager machine. This file is installed by default to the RightFax server in the RightFax\SNMP folder.

Receiving RightFax Alerts in Your Network Monitor

RightFax SNMP Alerting actively pushes RightFax alerts to your SNMP-capable network monitoring application. This helps you ensure that problems with the RightFax server are reported and addressed promptly. SNMP Alerting also lets you query several variables on the RightFax server so you can view the status of the fax server in real time.

The fax server can send up to nine alerts to your SNMP network monitor. The following table defines each RightFax alert. The default RightFax severity is also listed, however your network monitor software may be configured to use different terminology. In RightFax terms, "Critical" is severity level one, "Error" is severity level two, and "Warning" is severity level three.

Table 18a RightFax SNMP Alerts

Alert message	Default severity	Definition
"All BoardServers are down. Fax sending and receiving is not currently operating."	Critical	All BoardServers attached to this fax server have gone down.
"One or more drives on the fax server are approaching critically low disk space (<150 MB)."	Warning	One or more drives on the RightFax server have less than 150 MB free.
"One or more drives on the fax server are critically low on disk space (<50 MB). Many fax server functions have been suspended."	Critical	One or more drives on the RightFax server have less than 50 Mb free.
"Possible phone line failure on channel #, three consecutive no-dial tone errors within 45 minutes."	Critical	One or more fax channels have gone down due to line failure.
"RightFax E-mail Gateway Module on *FaxServerName*: The Exchange Connector has not responded in a timely fashion. Inbound message processing temporarily disabled."	Warning	The RightFax server is unable to communicate with the Exchange server.
"The fax server internal queue is more than 90% utilized."	Critical	The RightFax internal event queue is more than 90 percent utilized.

Table 18a RightFax SNMP Alerts (Continued)

Alert message	Default severity	Definition
"The fax server process was not properly shutdown."	Critical	A fax server was shut down unexpectedly.
"The send queue depth on server *ServerName* is currently: #/# (faxes/pgs)."	Critical	There are more than 1,000 faxes or 10,000 fax pages in the fax queue.
"Unable to communicate with BoardServer *ServerName* (error 2)"	Error	One BoardServer is down, but at least one other BoardServer is still running.

Each alert severity indicates how vital the component is to the operation of the RightFax server. "Critical" and "Error" alerts indicate a loss of fax functionality. "Warning" and "Informational" alerts indicate a loss of fax capacity. These severity levels may use different names in your network monitoring application, but the hierarchy of severities remains the same. RightFax does *not* send specific "clearing" alerts that indicate when the cause of an alert has been resolved.

Alerts generated by RightFax SNMP Alerting are stored in your network monitor under the "RightFax Server Alerts" category. Please refer to your network monitoring application's documentation for information on displaying and managing alarm messages.

Because SNMP alerts are generated from the Windows Event Log on the RightFax server machine, the event log level of each individual RightFax service must be set to an appropriate level. The "Terse" setting records critical errors only. "Verbose" records all significant events and is most useful for tracking and resolving problems but can cause the event log to fill up quickly, which may prevent new events from being logged. For information on configuring the event log level for each RightFax service, refer to the *RightFax Administrator's Guide*.

Enabling and disabling RightFax alerts

The RightFax SNMP MIB contains four variables that let you enable or disable the RightFax alerts according to severity. To edit these variables, expand the MIB tree to:

.iso.org.dod.internet.private.enterprises.AVTC.Right-FAX.rfFaxServer.rfServerTraps

This object contains four editable (read/write) variables:

- rfSvrEnableCriticalTraps
- rfSvrEnableErrorTraps
- rfSvrEnableWarningTraps
- rfSvrEnableInformationalTraps

Each variable can be set to either "objectENABLE" or "objectDISABLE." Changes to these variables take effect immediately. Please refer to your network monitoring application's documentation for information on editing variables in the MIB.

Querying RightFax Status Variables

The RightFax SNMP MIB is comprised of 12 objects, each made up of several variables. These variables provide realtime status information on the RightFax server. To query the RightFax variables in your network monitoring application, expand the MIB tree to:

.iso.org.dod.internet.private.enterprises.AVTC.Right-FAX.rfFaxServer

All addresses below this branch point to a RightFax SNMP object or variable. The following tree lists each object in the RightFax SNMP MIB tree. Objects in bold contain variables.

rfFaxServer (.1.3.6.1.4.1.3529.2.1)
- **rfFaxServer_OV_v1Traps_** (.0)
- **rfServer** (.1)
- **rfServerModule** (.2)
- rfBoardServerModule (.3)
- rfBoards (.4)
  - rfBoardInfoTable (.4.1)
    - **rfBoardInfoEntry** (.4.1.1)
  - rfChannelInfoTable (.4.2)
    - **rfChannelInfoEntry** (.4.2.1)
- **rfDatabaseModule** (.5)
- rfRPCServerModule (.6)
- rfQueueHandler (.7)
- rfPagingServer (.8)
- rfWorkServers (.9)
  - rfWorkSvrModuleTable (.9.1)
    - **rfWorkSvrModuleEntry** (.9.1.1)
  - rfWorkSvrFunctionTable (.9.2)
    - **rfWorkSvrFunctionEntry** (.9.2.1)
- rfEMailGateway (.10)
  - rfGatewayModuleTable (.10.1)
    - **rfGatewayModuleEntry** (.10.1.1)
- rfServerTraps (.11)

The following tables list each of the RightFax SNMP variables and their definitions grouped according to the objects they are contained in. Variables in boldface are editable. For information on using your network monitoring application to access the MIB tree and query variables in the MIB, please refer to the documentation for your particular application.

rfFaxServer_OV_v1traps_

Table 18b Variables in the rfFaxServer_OV_v1Traps_ MIB Object

Variable	Type	Definition
rfSvrCriticalTrap	Notif.	Text of critical alert reported by the RightFax server. This is a notification type variable and cannot be queried or edited.
rfSvrErrorTrap	Notif.	Text of error alert reported by the RightFax server. This is a notification type variable and cannot be queried or edited.
rfSvrWarningTrap	Notif.	Text of warning alert reported by the RightFax server. This is a notification type variable and cannot be queried or edited.
rfSvrInformationalTrap	Notif.	Text of informational alert reported by the RightFax server. This is a notification type variable and cannot be queried or edited.

rfServer

Table 18c Variables in the rfServer MIB Object

Variable	Type	Definition
rfSvrQueueUsage	Integer	Percentage of the fax server's internal Event Queue currently in use.
rfSvrEventsProcessed	Integer	Total number of events processed by the fax server since the Server module was started.
rfSvrBoardSvrAvailIndex	Integer	Availability of the server's fax boards).
rfSvrCurrentFaxesQueued	Integer	Current number of outgoing faxes waiting to be sent.

Table 18c Variables in the rfServer MIB Object (Continued)

Variable	Type	Definition
rfSvrCurrentPagesQueued	Integer	Current number of outgoing fax pages waiting to be sent.
rfSvrDiskAvailForfaxImages	Integer	Percentage of disk space on the fax server available for storing fax images.
rfSvrDiskAvailForfaxDB	Integer	Percentage of disk space on the fax server available for storing fax database information.
rfSvrAllTimeFaxesSent	Integer	Total number of faxes sent from this server since the All-Time Counter starting date (rfSvrAllTimeCounterStart).
rfSvrAllTimePagesSent	Integer	Total number of fax pages sent from this server since the All-Time Counter starting date (rfSvrAllTimeCounterStart).
rfSvrAllTimeFaxesReceived	Integer	Total number of faxes received on this server since the All-Time Counter starting date (rfSvrAllTimeCounterStart).
rfSvrAllTimePagesReceived	Integer	Total number of fax pages received on this server since the All-Time Counter starting date (rfSvrAllTimeCounterStart).
rfSvrAllTimeCounterStart	Integer	Starting date from which the “All-Time” statistics are calculated.

rfServerModule

Table 18d Variables in the rfServerModule MIB Object

Variable	Type	Definition
rfSvrModuleServiceName	String	Fax Server module service name.
rfSvrModuleVersionNumber	String	Fax Server module version number.
rfSvrModuleServiceStatus	Integer	Current Fax Server service state.
rfSvrModuleTimeRunning	String	Length of time the Fax Server service has been running.

rfBoardServerModule

Table 18e Variables in the rfBoardServerModule MIB Object

Variable	Type	Definition
rfBoardSvrModuleServiceName	String	BoardServer service name.
rfBoardSvrVersionNumber	String	BoardServer module version number.
rfBoardSvrModuleStatus	Integer	Current BoardServer service state.
rfBoardSvrModuleTimeRunning	String	Length of time the BoardServer has been running.

rfBoards.rfBoardInfoTable.rfBoardInfoEntry

Table 18f Variables in the rfBoards.rfBoardInfoTable.rfBoardInfoEntry MIB Object

Variable	Type	Definition
rfBoardIndex	Integer	Fax board index.
rfBoardName	String	Each installed fax board type.

rfBoards.rfChannelInfoTable.rfChannelInfoEntry

Table 18g Variables in the rfBoards.rfChannelInfoTable.rfChannelInfoEntry MIB Object

Variable	Type	Definition
rfChannelIndex	Integer	Channel table index (lists each installed fax channel).
rfChannelChannel	String	Channel numbers and [S] or [R] flag indicating send or receive functionality.
rfChannelOperation	String	Current operational status of all channels.
rfChannelRoutingCode	String	Inbound routing code for all incoming faxes.
rfChannelPhoneNumber	String	Destination phone number of outgoing faxes.
rfChannelUserID	String	Destination User ID for incoming faxes.
rfChannelState	String	Channel state.
rfChannelRemoteID	String	Remote ID of machines sending incoming faxes.
rfChannelRate	String	Current rate of transmission.

Table 18g Variables in the rfBoards.rfChannelInfoTable.rfChannelInfoEntry MIB Object (Continued)

Variable	Type	Definition
rfChannelCompression	String	Data compression method.
rfChannelPagesInCall	Integer	Number of fax pages being transmitted during this call.
rfChannelMinutesRemain	Integer	Estimated number of minutes remaining until end of transmission.

rfDatabaseModule

Table 18h Variables in the rfDatabaseModule MIB Object

Variable	Type	Definition
rfDatabaseSvrModuleServiceName	String	Database module service name.
rfDatabaseSvrVersionNumber	String	Database module version number.
rfDatabaseSvrModuleStatus	Integer	Current Database module service state.
rfDatabaseSvrModuleTimeRunning	String	Length of time the Database service has been running.

rfRPCServerModule

Table 18i Variables in the rfRPCServerModule MIB Object

Variable	Type	Definition
rfRPCSvrModuleServiceName	String	RPC module service name.
rfRPCSvrVersionNumber	String	RPC module version number.

Table 18i Variables in the rfRPCServerModule MIB Object (Continued)

Variable	Type	Definition
rfRPCSvrModuleStatus	Integer	Current RPC module service state.
rfRPCSvrModuleTimeRunning	String	Length of time the RPC service has been running.

rfQueueHandler

Table 18j Variables in the rfQueueHandler MIB Object

Variable	Type	Definition
rfQueueHandlerModuleServiceName	String	Queue handler service name.
rfQueueHandlerModuleStatus	Integer	Current Queue handler service state.
rfQueueHandlerModuleTimeRunning	String	Length of time the queue handler has been running.

rfPagingServer

Table 18k Variables in the rfPagingServer MIB Object

Variable	Type	Definition
rfPagingSvrModuleServiceName	String	Paging module service name.
rfPagingSvrVersionNumber	String	Paging module version number.

Table 18k Variables in the rfPagingServer MIB Object (Continued)

Variable	Type	Definition
rfPagingSvrModuleStatus	Integer	Current Paging module service state.
rfPagingSvrModuleTimeRunning	String	Length of time the Paging module has been running.

rfWorkServers.rfWorkSvrModuleTable.rfWorkSvr ModuleEntry

Table 18l Variables in the rfWorkServers.rfWorkSvrModuleTable.rfWorkSvrModuleEntry MIB Object

Variable	Type	Definition
rfWorkSvrModuleIndex	Integer	WorkServer module table index (lists all WorkServers).
rfWorkSvrModuleServiceName	String	Each WorkServer module service name.
rfWorkSvrModuleVersionNumber	String	Each WorkServer module version number.
rfWorkSvrModuleStatus	Integer	Each WorkServer module service state.
rfWorkSvrModuleTimeRunning	String	Length of time each WorkServer has been running.

rfWorkServers.rfWorkSvrFunctionTable.rfWorkSvrFunctionEntry

Table 18m Variables in the rfWorkServers.rfWorkSvrFunctionTable.rfWorkSvrFunctionEntry MIB Object

Variable	Type	Definition
rfWorkSvrFunctionIndex	Integer	Workserver function table index (lists all WorkServers).
rfWorkSvrFunctionArchive	Integer	Is Archive service processed? (Yes/No)
rfWorkSvrFunctionCoverSheet	Integer	Is Cover sheet service processed? (Yes/No)
rfWorkSvrFunctionCVL	Integer	Is CVL service processed? (Yes/No)
rfWorkSvrFunctionFileRoute	Integer	Is FileRoute service processed? (Yes/No)
rfWorkSvrFunctionOverlay	Integer	Is Overlay service processed? (Yes/No)
rfWorkSvrFunctionPCL5	Integer	Is PCL5 service processed? (Yes/No)
rfWorkSvrFunctionPrint	Integer	Is Print service processed? (Yes/No)
rfWorkSvrFunctionNetMessaging	Integer	Is Network Messaging service processed? (Yes/No)
rfWorkSvrFunctionDelImageFile	Integer	Is Delete Image File service processed? (Yes/No)
rfWorkSvrFunctionOCR	Integer	Is OCR service processed? (Yes/No)

Table 18m Variables in the rfWorkServers.rfWorkSvrFunctionTable.rfWorkSvrFunctionEntry MIB Object (Continued)

Variable	Type	Definition
rfWorkSvrFunctionInterConnect	Integer	Is InterConnect service processed? (Yes/No)
rfWorkSvrFunctionPostscript	Integer	Is PostScript service processed? (Yes/No)

rfEMailGateway.rfGatewayModuleTable.rfGatewayModuleEntry

Table 18n Variables in the rfEMailGateway.rfGatewayModuleTable.rfGatewayModuleEntry MIB Object

Variable	Type	Definition
rfGatewayModuleIndex	Integer	Gateway module table entry index (lists each e-mail gateway).
rfGatewayModuleServiceName	String	Each gateway service name.
rfGatewayModuleVersionNumber	String	Each gateway module version number.
rfGatewayModuleStatus	Integer	Current state of each gateway service.
rfGatewayModuleTimeRunning	String	Length of time each gateway has been running.

rfServerTraps

Table 18o Variables in the rfServerTraps MIB Object

Variable	Type	Definition
rfSvrTrapComputer	String	Computer that generated the alert. This variable is used only for trap notifications and cannot be queried or edited.
rfSvrTrapSource	String	Source of the alert. This variable is used only for trap notifications and cannot be queried or edited.
rfSvrTrapSeverity	Integer	Severity of the alert. This variable is used only for trap notifications and cannot be queried or edited.
rfSvrTrapMessage	String	Alert notification message. This variable is used only for trap notifications and cannot be queried or edited.
rfSvrEnableCriticalTraps	Integer	Critical alerts enabled/disabled.
rfSvrEnableErrorTraps	Integer	Error alerts enabled/disabled.
rfSvrEnableWarningTraps	Integer	Warning alerts enabled/disabled.
rfSvrEnableInformationalTraps	Integer	Informational alerts enabled/disabled.

Controlling RightFax Services From Your Network Monitor

Each RightFax service object in the MIB contains a status variable. For example, the rfDatabaseModule object contains the variable rfDatabaseSvrModuleStatus. There are a total of eight service status variables, each contained in a separate MIB object:

- rfSvrModuleServiceStatus
- rfBoardSvrModuleStatus
- rfDatabaseSvrModuleStatus
- rfRPCSvrModuleStatus
- rfQueueHandlerModuleStatus
- rfPagingSvrModuleStatus
- rfWorkSvrModuleStatus
- rfGatewayModuleStatus

When queried, these variables list the current state of the service on the RightFax service (such as stopped, started, or paused).

You can also edit these variables to manually start or stop the services on the RightFax server. Each variable can be set to either “statSERVICE_STOPPED” or “statSERVICE_RUNNING.” Changing any of these variables automatically instructs the RightFax server to start or stop the appropriate service. Please refer to your network monitoring application’s documentation for information on editing variables in the MIB.

Troubleshooting the RightFax Alerts

SNMP alerts are designed to call attention to events or conditions on the RightFax server that may effect your server’s ability to send and receive faxes. The actual causes of these events and conditions are not reported as part of the SNMP alerts. In most cases, reviewing the Event Log on the server which is reporting the alert will provide details as to the cause of the alert.

The troubleshooting information in this chapter is designed to point network administrators who have a familiarity with RightFax to the most common causes and solutions for each the nine SNMP RightFax alerts. However, as a client-server application, RightFax relies on the network for much of its functionality. Because network related problems can trigger RightFax alerts, the steps included here may not always resolve the cause of the alert. If RightFax alerts persist after following these steps, contact your RightFax administrator and/or network administrator.

All BoardServers down

This alert indicates that all primary and remote BoardServer services have failed.

1. Run Enterprise Fax Manager or the Windows Services application and attempt to restart the BoardServer(s). If the BoardServer(s) fail to start, check the application log in the Windows Event Viewer for details.
2. If the application log does not provide adequate information to resolve the problem, attempt to run the BoardServer in a window. On the RightFax server and any machines running remote BoardServers, change to the RFBoard folder and enter:

   boardsrv.exe -d -1

   This runs the BoardServer module as a session in a window in debug mode. As the board initializes, debug information is displayed and the reason for the BoardServer failure should appear as the last line of the debug text. (There may be additional lines of information associated with the BoardServer module shutting down again after the failure.)
3. If a RightFax BoardServer module on a remote machine starts and appears to be running normally but the alert persists, the failure may be due to problems with network connectivity between the remote BoardServer machine and the RightFax server.

Critically low disk space

This alert indicates that one or more drives on the RightFax server have fallen below 50 MB of available space.

1. Run Enterprise Fax Manager and check the status of the RightFax services. If the RightFax Server module has not already stopped, stop it. RightFax will automatically stop processing additional fax traffic until both the drive that RightFax is installed on and the drive that Windows is installed on have more than 50 MB available. Additional SNMP alerts may be generated as a result of this action.
2. Uninstall any unnecessary applications from the RightFax server using the Add/Remove Software program in Control Panel.
3. If this does not alleviate the storage problem, check the RightFax\Image folder. If it is exceptionally large, consider running the FAXAGE utility. This will delete faxes from the server database based on the age of the fax. For information on running Faxage.exe please refer to the *RightFax Administrator's Guide*.
4. If running FAXAGE is not an option, you can move the RightFax\Image folder to a new drive. First, create a RightFax\Image folder on a new drive with sufficient free storage space. Stop the RightFax Server module and move all of the images from the old RightFax\Image folder to the new one. Run Regedt32.exe on the RightFax server and add a new REG_SZ entry called "Image" to the HKEY_LOCAL_MACHINE\Software\RightFax key and set its value to "D:\RIGHTFAX\IMAGE" (where D is the new drive). Restart the RightFax Server module.

Exchange server is not responding

This alert indicates that the RightFax server is unable to communicate with the Exchange server. This is probably due to a failure of the RightFax connector for Exchange which is the service responsible for all communications between the two systems.

1. Attempt to restart the connector on the Exchange server through Windows Services.
2. If the connector still appears to be running, shut down and restart the connector.

Fax server event queue full

This alert indicates that the RightFax internal event queue is more than 90% utilized. This indicates that too many events currently require the attention of the RightFax Server module.

1. To get the RightFax server back online, the event queue size needs to be increased. A modest increase to the event queue size will not have any adverse effects on the RightFax server itself. On the RightFax server run REGEDT32. Look for the REG_DWORD entry "QueueSize" in the HKEY_LOCAL_MACHINE\Software\RightFax\FaxServer key. If the entry is there, change the value to 3000 (decimal). If the entry is *not* there, add it and set its value to 3000. Run the Services program from Control Panel and stop and restart the RightFax Server module. The fax server should return to normal operation.
2. During a period of low fax traffic, run the Services program from Control Panel and stop the RightFax Server module. This will automatically stop the Database module and the WorkServer modules. Go to the RightFax\Database folder and check the size of the Faxdata.D0F file. If the is between 500 KB and 2 MB, the alert was probably the result of a large fax broadcast or unusually high fax volume. Increasing the event queue will prevent this from happening again. Restart the RightFax Server module.
3. If the Faxdata.D0F file is 2 MB or larger, too many events are queued and not being resolved. The most common cause of this file becoming too large is unresolved work requests involving fax notifications and/or OCR. If users are set to receive notifications via Network Broadcast and no WorkServer is set to perform the "Network Broadcast" task, all the notification requests for the users will remain in the Faxdata.D0F file. Similarly, if users have enabled automatic OCR of received faxes and no WorkServers are set to perform OCR, the work requests will go unresolved and stack up. Also, if users have a large number of faxes in their FaxUtil mailboxes with a status of "Info Not Complete," the fax server will constantly monitor the faxes and repeatedly notify the users that their faxes need attention, occupying event queue resources.

   For more information on diagnosing and resolving RightFax database problems, please refer to the *RightFax Administrator's Guide*.

Low disk space

This alert indicates that one or more drives on the RightFax server have less than 150 MB free. This condition by itself should not effect your server's fax functionality, but is intended to warn you that resources are getting low. Please see the troubleshooting steps for "Critically Low Disk Space" (page 194) for information on resolving this alert.

Probable line failure

This alert indicates that one or more of the fax channels have gone down due to line failure. This alert is only generated when the BoardServer returns certain errors in sequence over a given period of time and is the direct result of phone line problems as opposed to a failure on the RightFax server.

1. To prevent additional alerts while diagnosing the problem, run the BoardServer configuration program and deactivate the channel that is generating the alerts.
2. Verify that all phone lines are correctly and securely attached to the fax board(s).
3. Disconnect the phone lines from the server and attach a standard phone to verify that the line is still active.
4. If using a of PBX, verify that the line is still active through the PBX.
5. For T1 installations, confirm that the green light on the fax board that indicates the T1 line is active is lit.

Send queue too deep

This alert indicates that there are more than a predefined number of faxes or fax pages in the fax queue waiting to send.

1. Verify that there are no other problems being reported with the server or phone lines that might prevent all of your outbound fax channels from being used.
2. If this alert appears frequently, too few fax channels may be dedicated to outbound faxing. Run the BoardServer configuration program and reevaluate each channel's send/receive capability.
3. If your fax traffic exceeds the capability of all of your fax channels, consider increasing your total number of channels.

Server improperly shut down

This alert indicates that a fax server was shut down unexpectedly. This indicates a sudden and unexpected loss of power.

1. Ensure that the server has recovered properly and is stable. The RightFax services should restart automatically. Monitor services and the Event Viewer for any problems.
2. The most common result of an unexpected shutdown is database corruption, which, if severe, can prevent the RightFax Server module from starting. For information on diagnosing and resolving RightFax database problems, please refer to the *RightFax Administrator's Guide*.
3. Faxes that were in progress during the shutdown may need to be released or resent by the creator of the fax. To "release" a fax, highlight the fax in FaxUtil, and then select **Fax > Status > Release**.

One BoardServer down

A BoardServer attached to this server has gone down, but at least one other BoardServer is still running.

This alert is generally not produced as the result of a BoardServer going down, but rather the loss of network connectivity between the RightFax server and a remote BoardServer machine. You can verify this by running the Windows Services application on each remote BoardServer machine to confirm that they are all operating correctly. If this is the case, contact your network administrator.

If one or more BoardServer services are down, refer to the instructions for the "All BoardServers down" alert (page 194).

▪ ▪ ▪

Chapter 19

Creating Dialing Rules and Least-Cost Routing Plans

Dialing rules allow precise control of outbound faxing by specifying rules and restrictions over how faxes are sent, according to their destination fax numbers. For example, using dialing rules, all faxes to a certain area code can be sent via WAN to another RightFax server in your organization at that area code to be sent as a local call, saving long-distance charges. As another example, all international faxes can be restricted to send only at times of day when rates are lowest.

RightFax Intelligent Least-Cost Routing™ (LCR) routes outbound faxes between servers on a wide-area network (WAN) in order to minimize long distance and other telephone charges. Intelligent Least-Cost Routing is comprised of several RightFax components: dialing rules, load balancing, prefix tables, InterConnect, and testing tools.

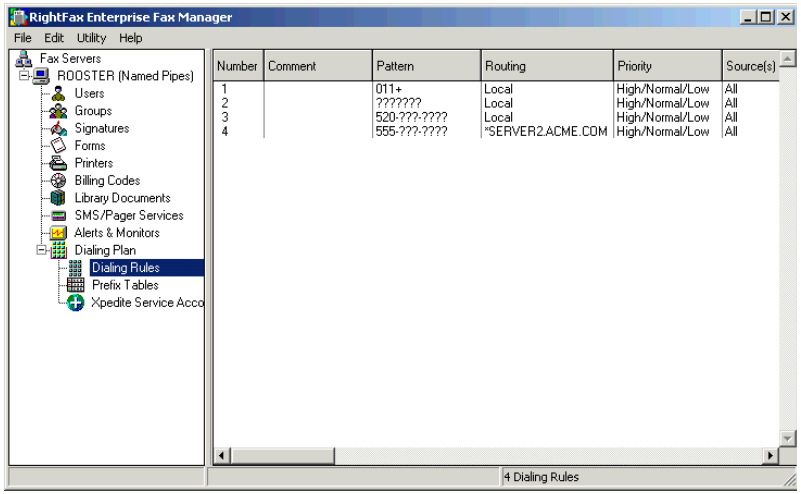
Managing Dialing Rules

When creating a dialing rule, you specify the fax number (or, using wildcards, a number pattern) and then attach rules and restrictions to faxes whose destination fax number matches that pattern. In cases where one fax number matches multiple dialing rule patterns, the fax server weighs each rule according to how closely it matches the fax number, and then sends the fax according to the rule with the greatest weight.

Because servers can be in different locations or serve groups with varying needs, dialing rules are server-specific. If you have multiple RightFax servers, you must create an appropriate list of dialing rules for each server.

To add, edit, or delete dialing rules in RightFax, run Enterprise Fax Manager and click **Dialing Rules** under the desired RightFax server in the Fax Server Tree.

Figure 19.1 The Dialing Rules List



Important *If you are using an Intel Dialogic series fax board, you must do the following before creating or modifying the dialing rules:*

- *Stop the Boardserver.*
- *Open the Dialogic Configuration Manager and stop the Intel Dialogic System Service.*
- *Create or modify the dialing rules.*
- *Restart the Boardserver.*

Adding dialing rules

To add a new dialing rule, press INSERT or select **New** from the **Edit** menu. The **Rule Edit** dialog box opens. For information on completing each of the options in this dialog box, see "Editing Dialing Rules" on page 199.

Deleting dialing rules

To delete a dialing rule, select the rule to delete and press DELETE, or select **Delete** from the **Edit** menu.

Copying dialing rules from one server to another

In Enterprise Fax Manager, you can copy one or more dialing rules from one RightFax server to another. Select the rules you want to copy, and then drag the selection to another server. The amount of information copied is configured in the Enterprise Fax Manager **Preferences** dialog box (see "Setting Preferences" on page 113).

If you copy dialing rules from a new RightFax server version to an earlier server version, you will lose configuration data that is not supported by the older server (for example, features on version 8.5 servers will not be available on version 8.0 servers).

Saving dialing rules

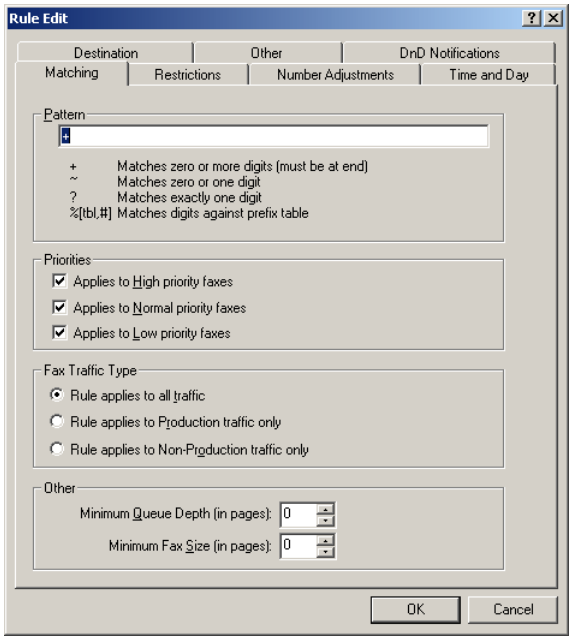
Changes you make to dialing rules are not automatically saved when you quit Enterprise Fax Manager. If you have unsaved dialing rules, an asterisk appears next to the Dialing Plan icon in the server tree. To save changes or additions to your dialing rules, press CTRL+S or select **Save Dialing Plan** from the **File** menu.

Editing Dialing Rules

To edit the properties of an existing dialing rule, run Enterprise Fax Manager, select the rule to edit and press ENTER, or select **Edit** from the **Edit** menu. You can also double-click the dialing rule. The **Rule Edit** dialog box opens.

The Matching tab

Figure 19.2 The Rule Edit Matching Tab



Pattern The destination fax number or number pattern that the dialing rule will apply to. RightFax ignores any hyphens, parentheses, or spaces in the pattern string. The pattern can include the digits 0–9, as well as the pound [#] and asterisk [*] keys.

You can use wildcards to define variables in the number pattern and thereby specify a range of numbers that the rule will apply to. The following table lists each wildcard that can be used in the **Pattern** box and its definition.

Table 19a Dialing Rule Pattern Wildcards

Wildcard	Definition	Examples
+	Matches zero or more digits; must always appear at the end of number string.	"+" matches any fax number entered. "415+" matches any number that begins with 415, including 415-320-7000, 415-4455, and 4151.
~	Matches zero or one digit; can be placed anywhere in the number string.	"~415+" matches any number beginning with 415 or [digit]415 including 415-320-7000, 415-3222, 1-415-320-7000, and 2415. "~~415+" matches 1-415-320-7000, 9-1-415-320-7000, and 415-320-7000.
?	Matches exactly one digit.	"415-320-7???" matches any number that starts with 415-320 and has its final four digits between 7000 and 7999. "415-???-????" matches any number within the area code 415.
%[tableID,#]	Matches digits defined in a prefix table to the number of digits specified (see "Managing Prefix Tables" on page 206).	"415-%[EAST,3]+" matches all numbers that begin with 415 and have a three-digit prefix defined in the prefix table "EAST."

Wildcards decrease the weight of a pattern match because they are always less specific than an exact match. For example, the fax number 520-320-7000 matches the pattern "520-320-700?" and "520+", but will always be matched with the first rule because it is more specific.

Priorities Restricts rule matching by the priority assigned by the user to the fax. Only faxes with the priority levels selected here will be considered for this rule. Matching based on priority can be useful when doing fax broadcasts or other large volume faxing. It can also be useful for universal redirection of faxes (e.g., send all high priority faxes from Server2 instead of Server1).

Fax Traffic Type Apply the dialing rule based on whether the fax was generated by the RightFax Integration Module. You can restrict the rule to production faxes only, non-production faxes only, or apply the rule to all faxes.

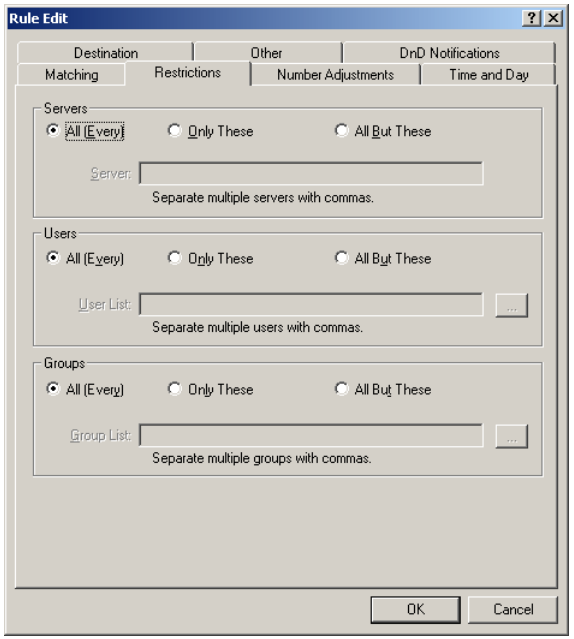
Minimum Queue Depth Specify the number of fax pages that must be waiting in the server's queue before this rule will be considered. This lets you define a dialing rule that can offload outgoing fax traffic to another server when the load on the current server gets too high.

Minimum Fax Size Specify the minimum number of pages a fax must be before this rule will be considered. This lets you define a dialing rule that can offload very large faxes to another server, leaving the local server free to send only smaller faxes.

The Restrictions tab

Each dialing rule can be restricted to specific servers, users, or groups in your organization.

Figure 19.3 The Rule Edit Restrictions Tab



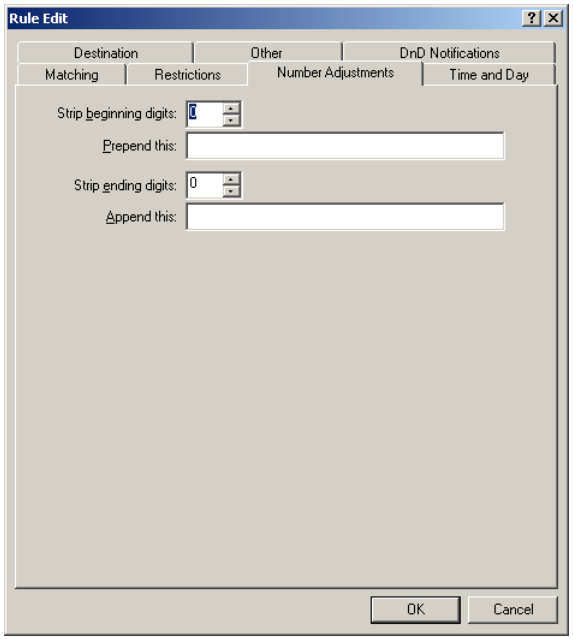
You have the following options:

- To apply the rule regardless of the origin of the fax, click **All (Every)**.
- To apply the rule to only the IDs you specify, click **Only These**. Enter one or more names of the servers, users, or groups to which the rule applies. Separate multiple entries with commas.
- To apply the rule in all cases except the IDs you specify, click **All But These**. Enter one or more names of the servers, users, or groups that are exempt from the rule. Separate multiple entries with commas.

The Number Adjustments tab

The Number Adjustments tab specifies how fax numbers that match the dialing rule should be modified in order to properly send from the specified destination.

Figure 19.4 The Rule Edit Number Adjustments Tab



These options let you add or remove digits from the beginning or end of the destination fax number. This can be used to automatically add a “1” to long distance calls or to add a “9” if necessary to get an outside line. It can also be used to add a user’s long distance billing code, or to remove all but the last four digits of a number for internal routing.

Note *RightFax can specify a global dialing prefix for all outbound faxes in your Global Board Settings (see* “Configuring BoardServer Global Board Settings” *on page 68**). If your organization requires a dialing prefix for all outgoing calls, you should specify the prefix there and not here in the dialing rules.*

You can append or prepend any combination of dialable digits. You can also include special dialing characters that have special meaning to RightFax. The following table lists the dialable characters and their definitions (characters are not case-sensitive).

Table 19b Dialing Characters Supported by Dialing Rules

Character	Definition
0–9	Dialable phone digits.
!	Hook-flash signal.
#	Pound button on phone.
*	Asterisk button on phone.
, (comma)	1-second pause (you can combine several of these characters to increase the length of the pause).
A	Replaced in the dial string by the fax’s Billing Code 1 value.
B	Replaced in the dial string by the fax’s Billing Code 2 value.
C	Replaced in the dial string by the fax’s ToContactNum value (the recipient’s voice number).
D	Replaced in the dial string by the fax’s ToName value (the recipient’s name). Any undialable characters in this field will be discarded.

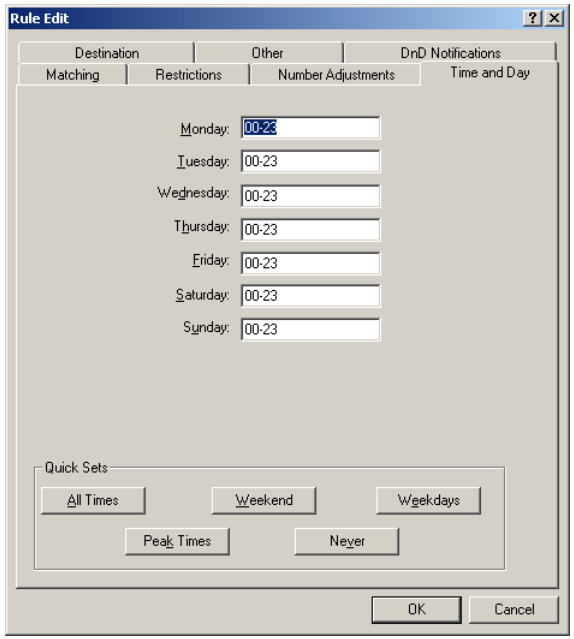
Table 19b Dialing Characters Supported by Dialing Rules (Continued)

Character	Definition
E	Replaced in the dial string by the fax's ToCompany value (the recipient's company name). Any undialable characters in this field will be discarded.
F	Replaced in the dial string by the user's domestic long distance Auto Billing Code (see "Configuring automated billing codes" on page 49).
G	Replaced in the dial string by the user's international long distance Auto Billing Code (see "Configuring automated billing codes" on page 49)..
I	5-second pause (you can combine several of these characters to increase the length of the pause).
P	Pulse dialing mode.
T	Tone dialing mode (default).
W	Wait up to 15 seconds for a dial tone.
{	Do not prepend the dialing prefix.
}	Do not append the dialing postfix.

The Time and Day tab

The Time and Day tab let you specify the time periods for each day of the week that the rule will be applied. This can be used to take advantage of special off peak phone rates or to balance fax loads between servers at the times when your fax traffic is the highest.

Figure 19.5 The Rule Edit Time of Day Tab



For each day of the week, enter the time period when the rule will apply using 24-hour military notation (i.e., "07" for 7:00 a.m. and "19"for 7:00 p.m.). Do not specify minutes. The rule will apply throughout the last hour in the range. For example, when you specify the time range "06–18," the rule will apply from 6:00 a.m. until 6:59:59 p.m.

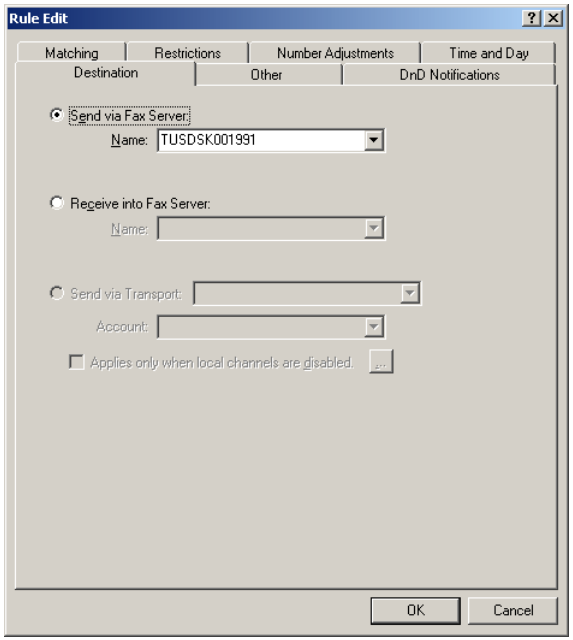
If you leave a box blank, the rule will not be in effect during that day. To apply a rule at all times, enter "00–23" next to each day.

Quick Sets These buttons let you quickly apply the most common time restriction settings.

The Destination tab

The Destination tab specifies where in your organization faxes matching the dialing rule pattern should be routed prior to dialing the destination fax number.

Figure 19.6 The Rule Edit Destination Tab



Send via Fax Server Causes the fax to be routed to any RightFax server (including the local server) on your network for transmission. When you select this option, you must also specify the destination server name and network protocol to use for routing.

When a fax is routed to another RightFax server on the network, the destination fax number is reevaluated against the dialing rules on the new server. The new server then transmits or forwards the fax according to its own rules. Be careful not to create dialing rules on two or more servers that would result in the servers looping one fax between them. If this occurs, RightFax will send the fax after ten loops.

Receive into Fax Server Causes the fax to be routed to a RightFax server (including the local server) on the network and delivered as an inbound fax. This allows you to define “intra-office” routing rules that let RightFax users in your organization send faxes to each other across different fax servers on the network. When you select this option, you must also specify the destination server name and network protocol to use for routing. If the fax number does not match a routing code on the receiving RightFax server, the fax will be routed to the Default user ID on that server.

Send via Transport This option lets you select one of the transport methods that you added and configured in the RightFax DocTransport module (described in Chapter 5, “Configuring the DocTransport and BoardServer Modules”) as the fax destination, rather than a specific RightFax server. In order to select a transport

method in this box, the transport must have been added in the DocTransport module. You can select from the following transport methods:

- **FOIP.** The fax will be transmitted via your SMTP server to a T.37-compatible device. T.37 fax over IP is a fax transmission protocol that allows faxes to be transmitted to T.37-compatible devices over IP, rather than dedicated fax channels. The fax is packaged as an e-mail message with a TIFF attachment and then sent over IP via an SMTP server. This message is automatically interpreted as a fax by the receiving device, which then prints it.

  To specify the e-mail address of the destination T.37-compatible device, click the **Number Adjustments** tab (described on page 201), strip all of the digits from the destination fax number, and then prepend the destination e-mail address.
- **SMS.** The fax will be routed to an SMS number. When a fax is sent to an SMS device, only the cover page notes are transmitted.

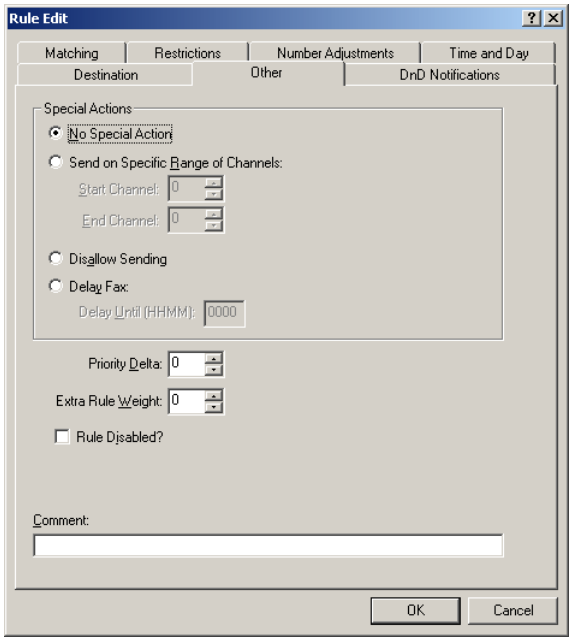
  To specify the destination SMS number, click the **Number Adjustments** tab (described on page 201), strip all of the digits from the destination fax number, and then prepend the desired SMS number.
- **DOCplus.** DOCplus is a fax transmission service provided by Xpedite (www.xpedite.com) that lets you forward fax images to an Xpedite server for transmission via their fax channels. This feature is most useful if you want to send a large volume of faxes in a short period of time or need to send more faxes than your fax channel capacity can efficiently manage.

  If you select this option, you must also specify a DOCplus account in the **Account** field. Select one of the Xpedite accounts that you have configured in Enterprise Fax Manager.

Applies Only when Local Channels are Disabled Causes the rule to be in effect only when the fax server has detected that all fax channels are disabled.

The Other tab

Figure 19.7 The Rule Edit Other Tab



No Special Action Processes the fax without delay on any available channel.

Send on Specific Range of Channels Sends the fax only on the channels you specify. The channel range specified here will override any channel restriction placed on a specific fax using the <CHANNEL> embedded code. This parameter is not transferred with the fax if it is routed to another fax server for sending.

Disallow Sending Prevents faxes from sending based on certain attributes such as the number pattern, time of day, or sender. The user will get the message "Fax blocked from dialing phone number." To retry sending the fax, the user must "kick" the fax (described in the FaxUtil online help).

Delay Fax Prevents the fax from sending until a specified time of day. If the specified time is earlier than the time the fax is received, the fax will send at that time on the next day. Specify the **Delay Until** time using military notation (0000–2359).

Note *Intelligent Least-Cost Routing rules are evaluated one time. If transmission is delayed by the Delay Fax setting, then other settings for the rule will not be evaluated.*

Priority Delta Set dialing rules to adjust a fax's priority setting (low, normal, or high). Priority is rated on a three-point scale: low priority <= 1, normal priority = 2, high priority >= 3. Using the priority delta, you can add or subtract points from all faxes that match the dialing rule pattern to adjust their priority up or down.

Extra Rule Weight Add additional weight to the dialing rule. When a fax number matches two or more dialing rules, RightFax "weighs" each rule according to how closely it matches the dialed number and uses the rule with the highest weight. This setting adds extra weight to the rule so it can be selected over another rule that has a better pattern match.

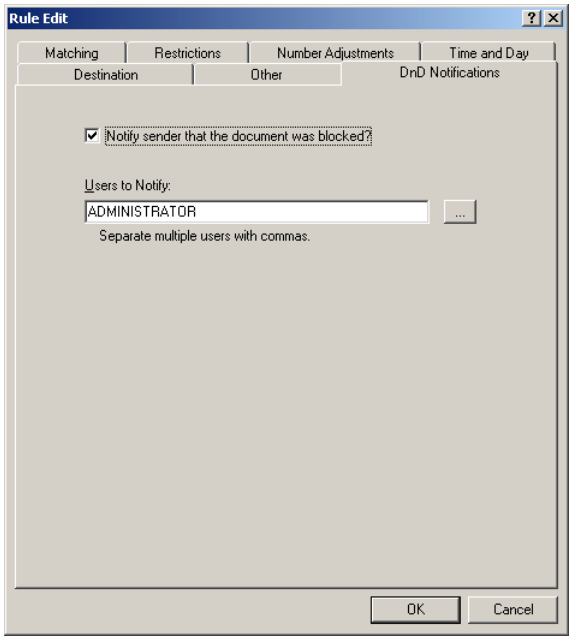
Dialing rule pattern characters are weighted as follows: digit match (0–9) = 10 points, + (plus) = 0 points, ? (question mark) = 5 points, ~ (tilde) = 4 points.

Rule Disabled Removes the dialing rule from consideration by the fax server. To enable the dialing rule, click to clear the check box.

Comment Optionally enter a descriptive comment for the dialing rule.

The DnD Notifications tab

Figure 19.8 The Rule Edit DnD Notifications Tab



Notify sender that the document was blocked Select this option if you want the sender to be notified after attempting to send a fax to a number that has been blocked by the Do-not-Dial feature. If this option is not selected, the sender will get the "Fax number blocked" custom message. To configure this message, see "Configuring the Custom Messages Tab" on page 25.

Users to Notify Specify the RightFax user IDs to which notifications will be sent. If you want to specify multiple user IDs, separate ID's with a comma. You can also select user IDs from a list of all user IDs on the local server by clicking the **[...]** button. To select multiple users from this list, press CTRL and click on each user ID you want.

Example of dialing rules in use

A company with RightFax servers in New York and Seattle adds the following dialing rules on the New York server:

206-???-????
Remove first three digits and send via Seattle server

206-820-50??
Remove first six digits and receive into Seattle server

When someone in New York sends a fax to 206-820-7000 (faxing to a customer in Seattle) the server will route the fax to the Seattle server which then sends it via a local call. However when someone in New York sends a fax to a co-worker in Seattle at 206-820-5065, the server will consider the fax a "received fax" and will route it to the appropriate internal fax mailbox (5065).

Load Balancing

Load balancing is the process of dividing your outgoing fax traffic across multiple RightFax BoardServers, each fax being routed to the BoardServer with the most available fax channels.

To do this, create multiple dialing rules with the same number pattern, each routing the fax to a different BoardServer computer. Because the number patterns are the same, each rule will be assigned the same "weight." When multiple rules match a fax number with equal weight, RightFax directs the fax to the BoardServer with the most available fax channels. If none of the servers have outbound fax channels available, the fax will be directed to the BoardServer that will have a channel available the soonest.

Important *Outbound faxes are always sent to the BoardServer with the most assigned fax channels before the dialing rules that determine load balancing are processed. For this reason, you should include all load balancing dialing rules on all fax servers and remote BoardServer computers. This will ensure that your load balancing rules operate even if one or more BoardServer computers fail.*

The load balancing feature is only available in RightFax Enterprise servers.

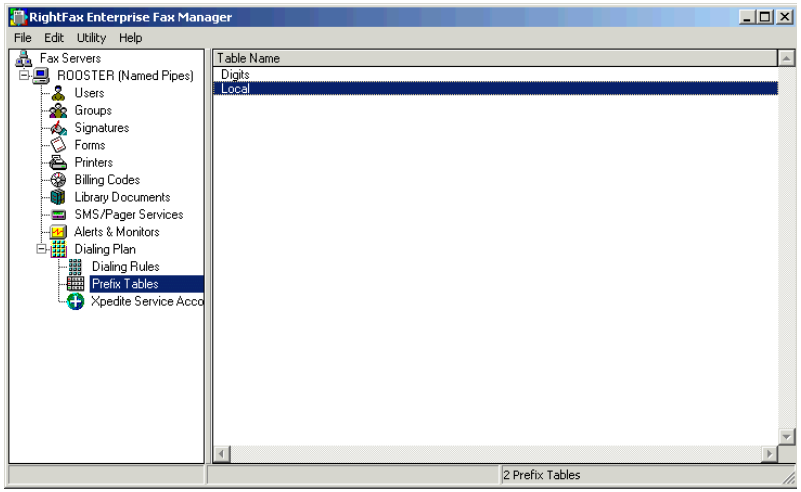
Managing Prefix Tables

You can store and organize groups of numbers such as dialing prefixes and area codes in prefix tables. These tables are used when creating dialing rules to represent a range of numbers, rather than creating a separate rule for each number pattern.

For example, a prefix table can be created that contains all of the area codes in a major metropolitan area. Using this prefix table, you can create a single dialing rule that addresses all of these area codes, rather than creating a separate rule for each area code.

To add, edit, or delete prefix tables in RightFax, run Enterprise Fax Manager and click **Prefix Tables** under the desired server in the server list.

Figure 19.9 The Prefix Tables List



Adding prefix tables

To add a new prefix table, press INSERT or select **New** from the **Edit** menu. The **Prefix Table Edit** dialog box opens. For information on completing each of the options in this dialog box see “Editing Prefix Tables” on page 207.

Deleting prefix tables

To delete a prefix table, select the table to delete and press DELETE, or select **Delete** from the **Edit** menu.

Copying prefix tables from one server to another

In Enterprise Fax Manager, you can copy one or more prefix tables from one RightFax server to another. Select the tables you want to copy, and then drag the selection to another server. The amount of information copied is configured in the Enterprise Fax Manager **Preferences** dialog box (see “Setting Preferences” on page 113).

If you copy users from a new RightFax server version to an earlier server version, you will lose configuration data that is not supported by the older server (in other words, features on version 8.5 servers will not be available on version 8.0 servers).

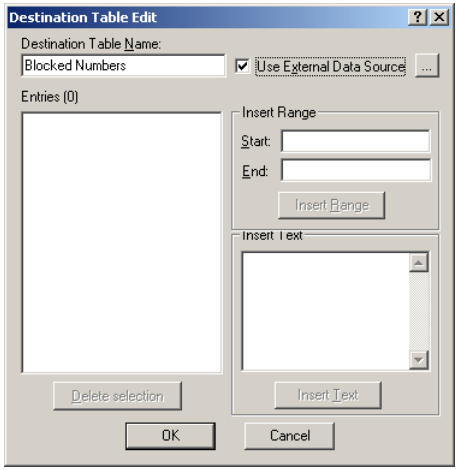
Saving prefix tables

Changes you make to prefix tables are not automatically saved when you quit Enterprise Fax Manager. If you have unsaved prefix tables, an asterisk appears next to the Dialing Plan icon in the server tree. To save changes or additions to your prefix tables, press CTRL+S or select **Save Dialing Plan** from the **File** menu.

Editing Prefix Tables

To edit the properties of an existing prefix table, run Enterprise Fax Manager, select the table to edit and press ENTER or select **Edit** from the **Edit** menu. You can also double-click the prefix table. The **Destination Table Edit** dialog box opens.

Figure 19.10 The *Destination Table Edit* dialog box



In the **Destination Table Name** field, enter a name for the table, and then type the entries you want in the **Entries** box. All the entries in a prefix table must be the same length. Entries can only include the digits 0–9, pound [#], and asterisk [*].

Check the **Use External Data Source** option to use a list of numbers from a SQL database. For more information about using this feature refer to the next section, “Setting up Do not Dial lists from a database”.

If the prefix table will contain a range of numbers, enter the starting and ending numbers in the series under **Insert Range** and click the **Insert Range** button. All the numbers in the range you specify will appear in the list.

Setting up Do not Dial lists from a database

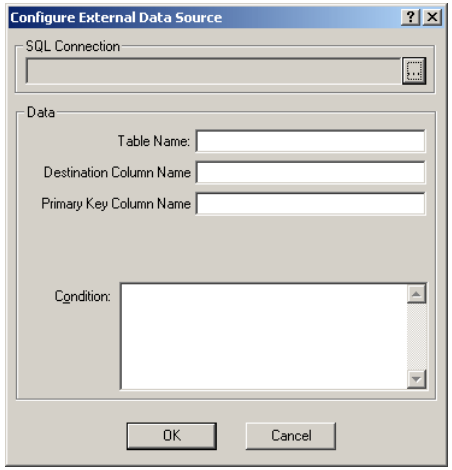
If your organization maintains a database containing lists of phone numbers that should not be dialed, you can link the prefix table directly to this database and then set up a dialing rule that will prevent these numbers from receiving fax transmissions.

Before you can set up a Do not Dial list, you must configure the database containing the numbers to block as an ODBC data source. Refer to the documentation for your server's operating system for information on configuring a new ODBC data source.

After you have set up the ODBC data source for the database containing the numbers to block, follow these steps to set up Do not Dial rules.

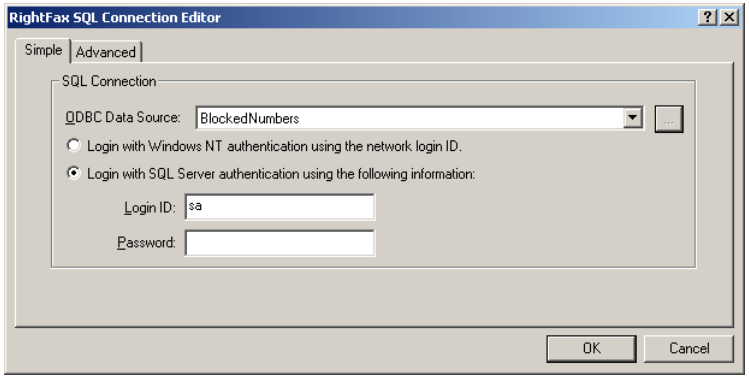
1. In Enterprise Fax Manager, create a new prefix table.
2. Enter a name for the table, select the option **Use External Data Source**, and then click the **[...]** button. This opens the **Configure External Data Source** dialog box.

Figure 19.11 The *Configure External Data Source* dialog box



3. Click the **[...]** button next to the **SQL Connection** box to configure the ODBC data source. This opens the **RightFax SQL Connection Editor** dialog box.

Figure 19.12 The *RightFax SQL Connection Editor* dialog box



4. Click the **[...]** button next to the **ODBC Data Source** box and select the ODBC data source you created for the Do not Dial list.
5. Specify the login information required to access the database and then click **OK**. This will return you to the **Configure External Data Source** dialog box with the connection information entered in the **SQL Connection** field.
6. In the **Table Name** field, enter the name of the table that contains the phone numbers to block.
7. In the **Destination Column Name** field, enter the name of the table column specific to the phone numbers.
8. In the **Primary Key Column Name** field, enter the name of the primary key column for the table you specified in the **Table Name** field.

9. In the **Condition** field, enter any SQL script that you might want to use to limit the range of phone numbers in the database. For example, you could enter a query for a field called “Block Number” set to true. This would limit the range of blocked phone numbers to only those for whom a separate field in the table called “Block Number” is set to true.
10. Click **OK**. The **Destination Table Edit** dialog box reopens with all of the phone numbers from the database listed in the **Entries** box. The entries in the box are dynamic and will be automatically updated as you make changes to the database that you are linked to. There is no need to update this list after is has been set up. Click **OK** to save the table.
11. In Enterprise Fax Manager, create a new dialing rule.
12. On the **Matching** tab, enter the information for the new prefix table in the Pattern field using the following syntax:

    %[*PrefixTable***,#]**

    Where *PrefixTable* is the name of the prefix table you just created and # is the number of digits in each phone number entry. This should not be entered as a digit, but instead you should enter the number of pound symbols equal to the length of the phone numbers in your database.

    Example %[BlockedNumbers,#########]
13. Click the **Other** tab and select the option **Disalow Sending**.
14. Click **OK** to save the dialing rule.

Referencing Prefix Tables in Dialing Rules

Prefix tables are referenced in the **Pattern** setting of dialing rules (page 199). This allows a single dialing rule to successfully match groups of otherwise unrelated numbers.

In the **Pattern** box in the **Rule Edit** dialog box, replace the digits referenced by the prefix table with a percent sign (%) followed by the name of the prefix table, a comma, and the number of digits to reference all in square brackets. For example, the following dialing rule correctly references the prefix table Region1 for the three-digit dialing prefix:

520-%[Region1,3]-????

RightFax InterConnect

InterConnect is a feature that routes faxes from one RightFax server to another. This allows multiple RightFax servers to accept incoming faxes for the same users and then forward the faxes to the server on which the user’s account exists.

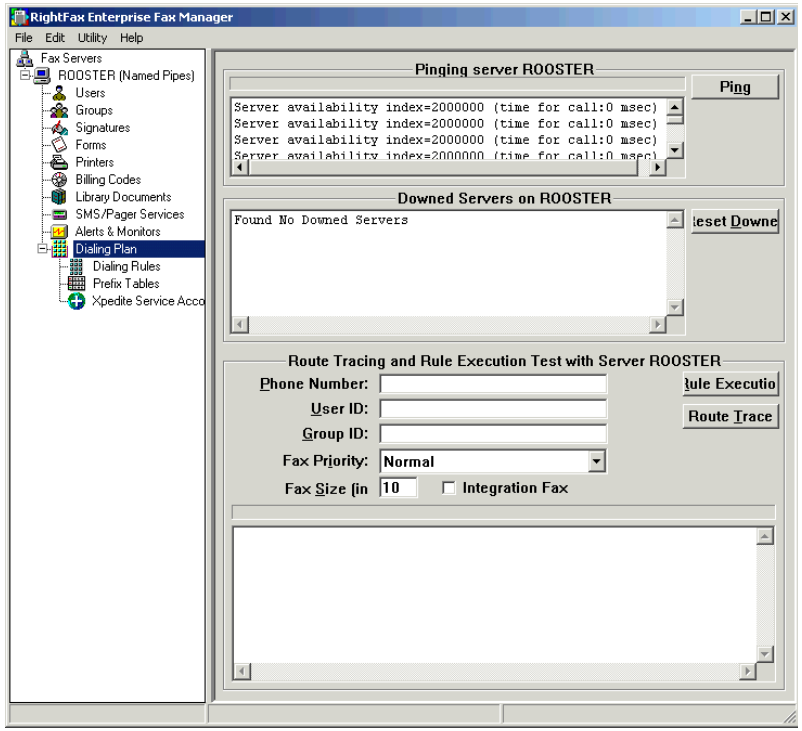
For information on enabling and configuring InterConnect, see “RightFax InterConnect” on page 239).

Testing Dialing Rules and Fax Routes

Because Intelligent Least-Cost Routing involves many variables that could conflict with one another, RightFax includes diagnostic tools for testing and confirming your fax routing scheme.

To run the tests, run Enterprise Fax Manager and click **Dialing Plan** under the server you want to test.

Figure 19.13 Diagnostic Tools for Testing Least-Cost Routing Rules



Pinging a server

By pinging a server, you can test communications with a selected RightFax server using a particular protocol. To run this test, click **Ping**.

The amount of time it takes information packets to make a round trip between machines will display in seconds as "time for call." The current sever load will display as "server availability index." The higher the index value, the greater the server availability.

Tracing the route of a fax

You can test the dialing rules you have constructed using real fax numbers without actually sending a fax. This test will show where the fax will be sent from, such as a specific server or a connector in your system. This test will *not* indicate if the fax is delayed or if the transmission is unsuccessful based on dialing rules. For this level of detail, use the rule execution test.

To run this test, enter a fax telephone number in the **Phone Number** box. You can also enter a specific user ID, group ID, fax priority, and fax size to test how each effects the fax routing.

If the dialing rule applies to production faxes, click to select **Integration Fax**. Production faxing is implemented with the optional Integration Module.

Click **Route Trace** to start the test.

As the fax number passes one or more servers, the dialog box will display which rules are being used, how the fax number is manipulated along the way, the number of hops, or jumps, from server to server, and the time it takes to route between servers. The time between servers does not include the time to transfer image data. That additional time will depend on the size, resolution, and density of the fax.

Executing rules

Like tracing the route of a fax, you can test the dialing rules you have constructed using real fax numbers without actually sending a fax. Using the rule execution test, you can obtain more detailed information about dialing rules on a server.

To run this test, enter a fax telephone number in the **Phone Number** box. You can also enter a specific user ID, group ID, fax priority, and fax size to test how each effects the route and execution of the rule.

If the dialing rule applies to production faxes, click to select **Integration Fax**. Production faxing is implemented with the optional Integration Module.

Click **Test** to start the test.

As the fax is routed, the dialog box displays each dialing rule against which the fax number is compared and provides information about the match weights and server availability.

Viewing disabled rules

The **Downed Servers** list displays any rules that are disabled due to downed RightFax servers and the error that caused the rule to be disabled.

To refresh the list of downed servers, click **Reset Downed**.

Call Blocking

By default, the BoardServer module blocks all calls going out to numbers beginning with 911 (the standard emergency number throughout the United States). The numbers blocked by the BoardServer can be changed by adding the following REG_MULTI_SZ key to the Windows registry on the BoardServer machine: HKEY_LOCAL_MACHINE\Software\RightFax \BoardServer\BlockedNumbers. Add the number prefix(es) to block one number per line.

Non-numeric prefix characters will be ignored when the comparison is made, so that a dialed number ",,911" will still match "911" correctly and be blocked. When a RightFax user's outgoing fax is blocked by this feature, it's error status will be displayed as "Scheduling Failed."

BoardServer call blocking can be disabled by adding the following REG_DWORD key to Windows registry on the BoardServer machine: HKEY_LOCAL_MACHINE\Software\RightFax \BoardServer\BlockingFlags. Set this value to "2" to disable all call blocking at the BoardServer level.

Spam Blocking

It is possible to block unwanted or 'spam' faxes provided they possess ANI or DNIS information. If you receive, and wish to block unwanted faxes that possess ANI or DNIS information, you must first create a RightFax account(s) where unwanted faxes will be routed to. After creating this account you must then modify the Windows regisry to contain a list of blocked numbers and the newly created account to which they will be routed to.

Create a spam blocking registry entry

1. At the RightFax server, open the Windows registry and browse to the subkey HKEY_LOCAL_MACHINE\Software\RightFax \BoardServer.
2. Create a new subkey under \BoardServer called **ANI**.
3. In the ANI sub-key, create a new REG_MULTI_SZ value called **Entries**.
4. Open the newly created Entries value and enter the ANI or DNIS information and the RightFax user ID (where blocked faxes will be routed to). An example using the DNIS number of *5551212* and the user account of *SpamAccount* is provided below. All data added to the Entries value must be entered using this format. There is no limit to the numbers you can add here.
   5551212, SpamAccount
5. Close the Windows registry.

Least-Cost Routing Examples

Scenario 1: Using LCR (a simple example)

PDQ Company has a RightFax server in New York City ("NYSERVER") and one in Tucson ("TSNSERVER") and wants to save money using Intelligent Least-Cost Routing. PDQ has

determined that it would be cheaper to send New York faxes bound for Tucson and Southern Arizona numbers via TSNSERVER. It adds this rule to NYSERVER:

520+
Send via fax server TSNSERVER. Use TCP/IP protocol.

Scenario 2: Using dialing prefix tables

PDQ Company wants to make sure that Southern Arizona calls outside of Tucson are dialed correctly from TSNSERVER. The 458 prefix requires a '1' be prepended onto the number. Also, the 520 area code should not be used. It adds this rule to TSNSERVER:

458+
Send via local fax server. Prepend 1.

520-458+
Send via local fax server. Strip 3 digits from beginning. Prepend 1.

Actually there are more prefixes that could be dialed in Southern Arizona, but it would be cumbersome to add rules for each one. PDQ determines that there are three prefixes (458, 459, 652) in the 520 area code that function this way. PDQ creates a prefix table named SOUTHAZ and includes these three prefixes. It can then use these two rules on TSNSERVER to cover all of Southern Arizona outside Tucson:

%[SOUTHAZ,3]+
Send via local fax server. Prepend 1.

520-%[SOUTHAZ,3]+
Send via local fax server. Strip 3 digits from beginning. Prepend 1.

Scenario 3: Distinguishing '+' wildcard rules from other local numbers

The system administrator for NYSERVER now finds that faxes bound for internal four-digit PBX numbers in New York beginning with "520" are inadvertently being routed out to Tucson. In addition, New York just added a prefix for the Tri-State area of "520" (requiring a 1 be dialed first from the PDQ office) and those calls are going to Tucson, too. To correct this situation, the administrator adds these two rules to NYSERVER:

520?
Send via local fax server

520-????
Send via local fax server. Prepend 1

These two rules intercept 520 calls that would otherwise match the "520+" rule in Scenario #2. These rules would match the local destination numbers more specifically and therefore be weighted more heavily.

Scenario 4: Stripping unnecessary digits

The PDQ system administrator for NYSERVER has also noticed that recent transfers from the Tucson site are still used to using the long distance carrier from there. They are always putting a '1' on the beginning of ten digit long distance numbers. Because the PDQ New York long distance carrier does not require it, she adds this rule to NYSERVER to strip the '1':

1-???-???-????
Send via local fax server. Strip 1 beginning digit.

Scenario 5: Using LCR (an advanced example)

PDQ Company opens a sales office in Los Angeles with a new RightFax server ("LASERVER"). PDQ has worked a deal with the local phone companies in L.A. such that all calls in the local L.A./Orange County area are at a special low rate. A similar deal was worked for the New York metro area. This means PDQ can save money by routing all LA faxes to the LASERVER and all NY faxes to the NYSERVER. However, because of charges related to the TCP/IP connection between L.A. and N.Y., it is still cheaper to send faxes during off-peak periods to L.A. and N.Y. via direct long distance dialing.

PDQ would first set up four prefix tables: an LA area code (“LAACODE”) table and an LA area code+prefix table (“LAPREFIX”) on NYSERVER, and a NY area code (“NYACODE”) table and a NY area code+prefix table (“NYPREFIX”) on LASERVER.

LAACODE and NYACODE each contain a list of area codes that match the cut-rate phone numbers in their respective regional areas. LAPREFIX and NYPREFIX match numbers in area codes where the whole area code was not part of the cut-rate deal and thus only certain prefixes are eligible.

NYSERVER would then have these two rules:

%[LAACODE,3]+
Time of day set to peak times. Send via fax server LASERVER. TCP/IP protocol

1%[LAPREFIX,6]+
Time of day set to peak times. Send via fax server LASERVER. TCP/IP protocol

LASERVER would have a matching set of rules referencing NYACODE and NYPREFIX and routing to NYSERVER. Peak times must be specified because it is still cheaper to send in the evening and at night via long distance.

In addition, a local rule is required on both the NYSERVER and LASERVER to strip off the unnecessary area code. PDQ adds this rule on NYSERVER:

212+
Send via local fax server. Strip 3 digits

A similar rule would be necessary for LASERVER as well.

To enable Intelligent Least-Cost Routing for TSNSERVER to NY and LA, a copy of each of the four prefix tables and each of the dialing rules would be entered on TSNSERVER.

Scenario 6: Boosting priority

PDQ Company is expanding and the load on the RightFax servers is increasing. PDQ decides to boost the priority of faxes from certain high priority Groups and Users on LASERVER to ensure that their faxes are sent quickly. This rule is added to LASERVER:

+
Restricted only to Users: SALESMGR,CFO and to Group: TOPDOGS. Priority Delta +1.

Scenario 7: International routing

PDQ Company expands into the international market. Their first overseas site is London which has a RightFax server installed (“UKSERVER”). All faxes from LA, NY, and Tucson bound for England need to be routed to UKSERVER. This rule is added to each of these servers:

011-44+
Send via fax server UKSERVER. Use TCP/IP protocol.

Rules would need to be placed on UKSERVER to “normalize” the phone numbers for England (such as stripping area codes or adding digits if necessary).

Scenario 8: Load balancing

PDQ adds another RightFax server to its expanding NY site (“NYSERVER2”). Also, usage data indicates that during peak times, faxes on NYSERVER are taking, on average, several minutes longer to be sent than those on NYSERVER2. Upon analysis, PDQ finds that the users of NYSERVER are sending many more faxes than the users on NYSERVER2.

By entering these two rules on each server, new outgoing faxes on each server will be routed to the one with the least load:

+
Send via local fax server

+
Send via fax server NYSERVER2 (or NYSERVER). Use TCP/IP protocol

Because each rule is weighted the same, RightFax load balances between the two servers.

Scenario 9: Backup servers

PDQ Company's system administrator for LASERVER hears about the new NYSERVER2 in New York and decides to make use of the additional server by replicating all the dialing rules on LASERVER for NYSERVER but this time referring them to NYSERVER2. This leads to a guaranteed path of Intelligent Least-Cost Routing should one or the other of the N.Y. servers fail for any reason.

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Chapter 20

Creating Fax Cover Sheets

Fax cover sheets are saved as template files on the RightFax server. Cover sheet files can include both text and graphics, customized to your organization's needs, and you can create multiple cover sheet files, each for specific departmental use or for use with different types of fax documents.

Fax cover sheet files can include special codes (called "cover sheet codes") that will display the recipient's name and other contact information for both the sender and the recipient when the cover sheet is generated.

You can create the following types of cover sheets:

- HTML (described on page 215)
- Microsoft Word (described on page 217)
- PCL (described on page 219)

Note *PCL cover sheets should not be used on RightFax servers running Windows 2000 or Windows XP. This is because Windows 2000 and Windows XP manage native printer fonts differently from other versions of Windows, and cover sheet codes in PCL cover sheets may be improperly converted by the fax server and may generate imaging errors.*

RightFax cover sheet files may not be longer than one page. Any cover sheet information that appears on subsequent pages will be ignored. As a general rule, fax cover sheets should include information about the sender and intended recipient as well as information about your organization (such as logo, address, and phone number).

All RightFax cover sheet files are stored in the RightFax\FCS folder on the fax server. This folder contains sample fax cover sheets that you can either modify or refer to as examples in creating your own custom cover sheet files.

Creating an HTML Cover Sheet

HTML cover sheets can be created using an HTML or text editor. RightFax supports both HTML and meta-HTML (single-file multi-part MIME HTML) cover sheet files. Both HTML and meta-HTML files may include any text and graphics that are supported by these file types.

Graphic images in HTML cover sheets must be referenced using absolute paths, not relative paths. This is because the cover sheet file is processed and generated by the RightFax server in a location separate from the RightFax\FCS folder where the cover sheet file is stored, so images with relative path references will not be found. This rule does not apply to meta-HTML cover sheets, because meta-HTML embeds graphic images.

Because information on the cover sheet about the sender and intended recipient varies with each fax document, these variable elements are included as special cover sheet codes (see "Using HTML cover sheet codes" on page 216) that are replaced with the correct information when the cover sheet is generated.

HTML cover sheet files must use either the extension .htm or .mht (for meta-HTML files). Files with the extension .html will not be recognized by the RightFax server. When you have completed the HTML cover sheet file, copy it to the RightFax\FCS folder on the RightFax server. Because the cover sheet file name is the name users will see when they select cover sheets, it is recommended that you use descriptive file names for all cover sheet files.

Using HTML cover sheet codes

Cover sheet codes are used when you want the fax cover sheet to display information that can vary between fax documents (such as the recipient's name and the number of pages). When a cover sheet is generated by the RightFax server, the cover sheet codes are replaced by the data they represent. In HTML cover sheets, all cover sheet codes are surrounded by braces { }.

Table 20a Cover Sheet Codes for HTML Cover Sheets

Code	Maximum characters	Description
{BILLINFO1}	15	Billing code 1 (if any).
{BILLINFO2}	15	Billing code 2 (if any).

Table 20a Cover Sheet Codes for HTML Cover Sheets (Continued)

Code	Maximum characters	Description
{CCTEXT}	69	All the listed recipients of a fax (including CC and BCC recipients) in this format: Name,FaxNum;Name,Faxnum;... You can include up to 21 {CCTEXT} codes on a cover sheet, each code representing one line of recipients up to 69 characters long. Include one {CCTEXT} code on each line that should contain recipients. The cover sheet will only list the number of recipients for which space is provided.
{DATEONLY}	Variable	The date that the fax cover sheet was generated. The date format is determined by the default date format on the RightFax server.
{EMAILADDRESS}	Variable	The sender's e-mail address. This is the e-mail address that is entered in the RightFax user properties (described on page 123).
{FAXDIDNUM}	31	The sender's fax number.
{FROMNAME}	59	The sender's name.
{FROMPHONENUM}	31	The sender's phone number.
{GENERALFAXNUM}	31	The general fax number for the sender's organization.
{NOTETEXT}	Variable	The notes added to the fax when it was addressed.
{NUMPAGES}	Variable	The number of pages in the fax body, not including the cover sheet. To include the cover sheet in the page count, use the {NUMPAGESC} code.

Table 20a Cover Sheet Codes for HTML Cover Sheets (Continued)

Code	Maximum characters	Description
{NUMPAGESC}	Variable	The number of pages in the fax *including* the cover sheet. To exclude the cover sheet in the page count, use the {NUMPAGES} code.
{OPERATORNUM}	31	The general phone number for the sender's organization.
{ROUTEINFO}	Variable	The routing information entered in the user profile of the user creating the fax (described on page 127).
{TIMEONLY}	Variable	The time that the fax cover sheet was generated. The time format is determined by the default time format on the RightFax server.
{TOCITYSTATE}	59	The recipient's city and state.
{TOCOMPANY}	59	The recipient's organization name.
{TOCONTACTNUM}	31	The recipient's phone number.
{TOFAXNUM}	31	The recipient's fax number.
{TONAME}	59	The recipient's name.
{UNIQUEID}	16	The unique ID assigned to the outgoing fax.
{WHENFAXED}	Variable	The date and time the document was generated by the fax server. This is different from the time it was actually faxed to its destination, which is recorded on the TTI line on each fax page. The time the fax was processed by the fax server can be very different from the time it is actually sent, especially if you are using the RightFax Delay Send feature.

Creating a Microsoft Word Cover Sheet

If you have Microsoft Word installed on your RightFax server for server-side application conversion (described in Chapter 6, "Configuring RightFax Conversion"), you can create and use cover sheets in the native Word document format, rather than storing them in PCL5 format.

If you use Microsoft Word to create your cover sheets, you can store the cover sheets in their native Word (.DOC) format instead of printing to a PCL file (page 220).

Note *In order to perform native Word document cover sheet generation, you must have correctly installed and configured Microsoft Word on the RightFax server (page 93).*

Word documents stored in the RightFax\FCS folder on the fax server can be selected just like other PCL formatted cover sheet files and will be converted to fax format using server-side application conversion.

Cover sheets stored in the native Word format are easier to update than PCL cover sheet files and support all language character sets supported by Word and Windows, including Hebrew. Also, unlike PCL cover sheets, native Word cover sheet codes can use any TrueType font in addition to native printer fonts. Native Word cover sheets can take slightly longer to convert to fax format than PCL files, and this will be exaggerated if the server running Word has insufficient RAM.

Fax cover sheets must be only one page long. All pages after page one are ignored when the cover sheet is generated. Cover sheets should include general information about your organization (such as logo, address, and phone number) and display information about the sender and intended recipient. Because information about the sender and recipient are variables, these elements are inserted as special cover sheet codes (described in the next section), which are replaced with the correct information at the time the cover sheet is generated.

Using Microsoft Word cover sheet codes

Cover sheet codes are used as placeholders for the information that varies between faxes (such as the recipient's name, and the number of pages). When a RightFax cover sheet is generated for an outbound fax, the cover sheet codes are replaced in the fax image by the information they represent.

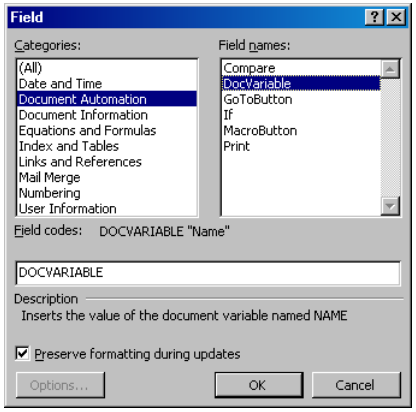
Cover sheet codes in native Word cover sheets are inserted as Word DocVariable fields. Unlike cover sheet codes in PCL cover sheets, native Word cover sheet codes can be any TrueType or native printer font.

Note *Although double-byte characters added to the text of a Microsoft Word cover sheet will convert correctly, double-byte characters inserted into DocVariable fields on Microsoft Word cover sheets will not.*

To insert a DocVariable field

1. In your Word cover sheet, position the cursor where you want to place the cover sheet code and select **Field** from the **Insert** menu. The **Field** dialog box opens.

Figure 20.1 The Field Dialog Box in Microsoft Word



Note *The DocVariable field will not appear in your document unless you have selected Field Codes in the View tab of the Word Options dialog box.*

2. Click **Document Automation**, and click **DocVariable** under **Field Names**. This displays DOCVARIABLE in the **Field Codes** field.
3. Add the cover sheet code to the variable in the format:

   DOCVARIABLE *code*

   Where *code* is one of the supported cover sheet codes listed in the following table. For example, the following cover sheet code displays the destination fax number:

   DOCVARIABLE ToFaxNum

4. Click **OK** to insert the code.

Table 20b Native Word Document Cover Sheet Codes

Variable name	Description
BillInfo1	The first billing code assigned to the fax
BillInfo2	The second billing code assigned to the fax
CCText	The carbon copy (cc) recipient list for the fax. Use one CCText code only to display all of your cc recipients
EmailAddress	The sender's e-mail address. This is the e-mail address that is entered in the RightFax user properties (described on page 123).
FaxDate	The date and time the fax was originally created, as opposed to the time of the send attempt
FaxDIDNum	The sender's direct fax number
FaxSendDate	The date and time the fax was scheduled to send, (if the fax was time-delayed)
FromName	The sender's name
FromPhone	The sender's personal voice number
GeneralFaxNum	The general fax number for the sender's organization.
NoteText	Cover sheet notes. Use one NoteText code only to display all of your note text, even if your cover sheet notes are comprised of multiple <NOTE> embedded codes (page 316). If your cover sheet displays only one line of note text, place a carriage return immediately after the DOCVARIABLE code.
NumPages	Number of pages in the fax, excluding the cover page

Table 20b Native Word Document Cover Sheet Codes (Continued)

Variable name	Description
NumPagesC	Number of pages in the fax, including the cover page
OperatorNum	The general phone number for the sender's organization.
RouteInfo	The routing information entered in the user profile of the user creating the fax (described on page 127).
ToCityState	Recipient location
ToCompany	Recipient company name
ToContactNum	Recipient voice phone number
ToFaxNum	Destination fax number
ToName	Recipient name
UniqueID	The unique ID assigned to the fax
UserID	RightFax user ID of fax sender
UserName	RightFax User Name of fax sender

Note *If you place cover sheet codes in a Word text box, and the text box is not large enough to fit all of the text that replaces the codes, any extra text will be truncated on the cover sheet. You can fix this by increasing the size of the text box.*

Creating a PCL Cover Sheet

RightFax cover sheets can be created in any application that has the ability to print to a PCL5 file. Fax cover sheets may only be one page in length and should include general information about your organization (such as logo, address, and phone number) and display information about the sender and intended recipient. Because information about the sender and recipient are variables, these elements are inserted as special cover sheet codes (see

"Using HTML cover sheet codes" on page 216) which are replaced with the correct information at the time the cover sheet is generated.

Note *All fax cover sheets created on Windows 2000 machines should be created and edited using HTML or MS Word cover sheets only. Because Windows 2000 treats native printer fonts differently from other versions of Windows, cover sheet codes in PCL cover sheets are improperly converted by the fax server and may generate an imaging error.*

To print to a PCL5 file, select an HP III, HP 4 or compatible printer driver and select the "Print to file" option in your application's **Print** dialog box. The file must have the extension .pcl and must be saved in the RightFax\FCS folder on the RightFax server. You should use as descriptive a file name as possible because the file name of the PCL5 file is what your users will see when they change cover sheets.

Modifying the sample PCL cover sheet

RightFax is shipped with sample cover sheet files and the source documents they were created from. You can edit these source files to include your organization name and logo, rather than create a new cover sheet. Using Microsoft Word for Windows 6.0 or later, open the FCS.doc file in the RightFax\FCS\PCL_Source folder, make any desired changes, and print the modified cover sheet to a file in the RightFax\FCS folder with the extension .pcl.

Note *If you have trouble modifying the sample cover sheet and are using Microsoft Word 97 or later, select Options in the Tools menu and click the Compatibility tab. Select "Microsoft Word 6.0" in the Recommend Options For field.*

Using PCL cover sheet codes

Cover sheet codes are special codes that represent information that can vary from fax to fax (such as recipient name, and the number of pages). When a RightFax cover sheet is generated for an outbound fax, the cover sheet codes are replaced in the fax image by the information they represent.

Example If Jane Doe sends a fax using a cover sheet that contains the line
From: <FROMNAME>, then the cover sheet will contain this text when it is generated and added to the fax:

From: Jane Doe

Although you can use any font in the text of your cover sheets, cover sheet codes *must always* use a native printer font. This is because when the cover sheet document is printed to PCL5 format, all other font types are converted to graphic images. Only native printer fonts are stored in the .pcl file that the cover sheet is generated from in their original text format. And it is this text in the .pcl file that is replaced on the fax image. If you do not use native printer fonts for your cover sheet codes, the codes themselves will appear on the cover sheet instead of being replaced by the information they represent. All cover sheet codes are surrounded by angle brackets (< >), which must also use the same native printer font.

Table 20c Cover Sheet Codes for PCL Cover Sheets

Code	Maximum Characters	Description
<BILLINFO1>	15	Billing code 1 (if any).
<BILLINFO2>	15	Billing code 2 (if any).

Table 20c Cover Sheet Codes for PCL Cover Sheets (Continued)

Code	Maximum Characters	Description
<CCTEXT>	69	All the listed recipients of a fax (including CC and BCC recipients) in this format: Name,FaxNum;Name,Faxnum;... You can include up to 21 {CCTEXT} codes on a cover sheet, each code representing one line of recipients up to 69 characters long. Include one {CCTEXT} code on each line that should contain recipients. The cover sheet will only list the number of recipients for which space is provided.
<DATEONLY>	Variable	The date that the fax cover sheet was generated. The date format is determined by the default date format on the RightFax server.
<EMAILADDRESS> <EMAIL_ADDRESS>	Variable	The sender's e-mail address. This is the e-mail address that is entered in the RightFax user properties (described on page 124).
<FAXDIDNUM>	31	The sender's fax number.
<FROMNAME> <FROM_NAME>	59	The sender's name.
<FROMPHONENUM> <FROM_PHONENUM>	31	The sender's phone number.
<GENERALFAXNUM>	31	The general fax number for the sender's organization.

Table 20c Cover Sheet Codes for PCL Cover Sheets (Continued)

Code	Maximum Characters	Description
<NOTETEXT>	69	The notes added to the fax when it was addressed. You can include up to 21 <NOTETEXT> codes on a cover sheet, each code representing one line of notes up to 69 characters long. Include one <NOTETEXT> code on each line that you want notes to be listed on. The cover sheet will only include as much note text as there is space allotted for. If the notes for a fax are shorter than the space provided by <NOTETEXT> codes, the remaining lines will be filled with blanks.
<NUMPAGES>	Variable	The number of pages in the fax body, not including the cover sheet. To include the cover sheet in the page count, use the <NUMPAGESC> code.
<NUMPAGESC>	Variable	The number of pages in the fax *including* the cover sheet. To exclude the cover sheet in the page count, use the <NUMPAGES> code.
<OPERATORNUM>	31	The general phone number for the sender's organization.
<ROUTEINFO>	Variable	The routing information entered in the user profile of the user creating the fax (described on page 127).

Table 20c Cover Sheet Codes for PCL Cover Sheets (Continued)

Code	Maximum Characters	Description
<TIMEONLY>	Variable	The time that the fax cover sheet was generated. The time format is determined by the default time format on the RightFax server.
<TOCITYSTATE> <TO_CITYSTATE>	59	The recipient's city and state.
<TOCOMPANY> <TO_COMPANY>	59	The recipient's organization name.
<TOCONTACTNUM> <TO_CONTACTNUM>	31	The recipient's phone number.
<TOFAXNUM> <TO_FAXNUM>	31	The recipient's fax number.
<TONAME> <TO_NAME>	59	The recipient's name.
<UNIQUEID>	16	The unique ID assigned to the outgoing fax.
<WHENFAXED> <WHEN_FAXED> <DATE>	Variable	The date and time the document was generated by the fax server. This is different from the time it was actually faxed to its destination, which is recorded on the TTI line on each fax page. The time the fax was processed by the fax server can be very different from the time it is actually sent, especially if you are using the RightFax Delay Send feature.

Selecting a Cover Sheet File to Use

Although you can create any number of custom cover sheet files, the default cover sheet is the FCS.pcl file in the RightFax\FCS folder. This is the cover sheet that is used if no other cover sheet file is specified. RightFax includes a sample FCS.pcl file that can be modified or replaced with a new cover sheet file customized for your organization.

If your organization has several fax cover sheets for different types of faxes, users who have been assigned the appropriate permissions can specify which cover sheet to use for each fax they send. In addition, you can specify a default cover sheet for each user or each group of users.

To change cover sheets, a user must be assigned permission to do so.

To assign a user permission to change cover sheets

1. Run Enterprise Fax Manager (see "Starting Enterprise Fax Manager" on page 111).
2. Click **Users** under the appropriate server and double-click the user ID to modify.
3. Click the **Permissions** tab and select the **Can Change Cover Sheets** check box.

To specify a cover sheet on a fax

When a user is entering the fax addressing information in the **Fax Information** dialog box (page 248), a check box in the lower left lets the user specify whether or not to include a fax cover sheet. The cover sheet is included only with the current fax.

Users can include the <FCSFILE> code in documents (see Appendix A, "RightFax Embedded Codes") which specifies a cover sheet file to use for that document.

Changing a user's default cover sheet

To assign a new default cover sheet to a specific user, run Enterprise Fax Manager (see "Starting Enterprise Fax Manager" on page 111), click **Users** under the appropriate server, double-click the user ID to modify, and click the **Default Outbound Settings** tab. Under **Cover Sheet Defaults**, select the **Send Cover Sheets** check box, and select the cover sheet file to use in the **Cover Sheet Model** box.

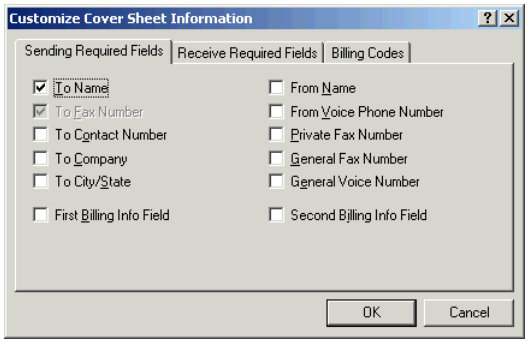
Changing a group's default cover sheet

To assign a default cover sheet to a RightFax group, run Enterprise Fax Manager (see "Starting Enterprise Fax Manager" on page 111), click **Groups** under the appropriate server, double-click the group ID to modify, and click the **Basic Information** tab. Select the cover sheet file to use in the **Cover Sheet Model** box.

Requiring Cover Sheet Fields

To transmit an outgoing fax, information about the recipient must be completed in the **Fax Information** dialog box. The RightFax administrator can specify how much information the user must complete before the fax will send. To set the required fields, run Enterprise Fax Manager (see "Starting Enterprise Fax Manager" on page 111) and select **Customize Cover Sheet Fields** from the **Utility** menu. The **Customize Cover Sheet Information** dialog box opens.

Figure 20.2 Required Fields for Outbound Faxes



Select the check box next to each field you want to require. The **To Fax Number** option is required in order to send the fax, so it cannot be cleared. If all of the required fields on an outgoing fax are not completed, the fax will remain in a user's FaxUtil mailbox with the status "Info Not Complete."

Requiring cover sheet fields on received faxes

You can specify required fields for received faxes. This allows you to require that the fax recipient include billing codes or other fields for billing records.

In the **Customize Cover Sheet Information** dialog box, click the **Receive Required Fields** tab. Select the check box next to each field that you want to require.

If a fax arrives that does not include all required fields, the recipient will not be able to delete the received fax without completing the specified fields.

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Chapter 21

Using Optical Character Recognition

RightFax can be configured to use Optical Character Recognition (OCR) technology to convert received faxes from a graphic format into text, and is able to automatically route faxes to their intended recipient based on the **To** name found on the cover sheet.

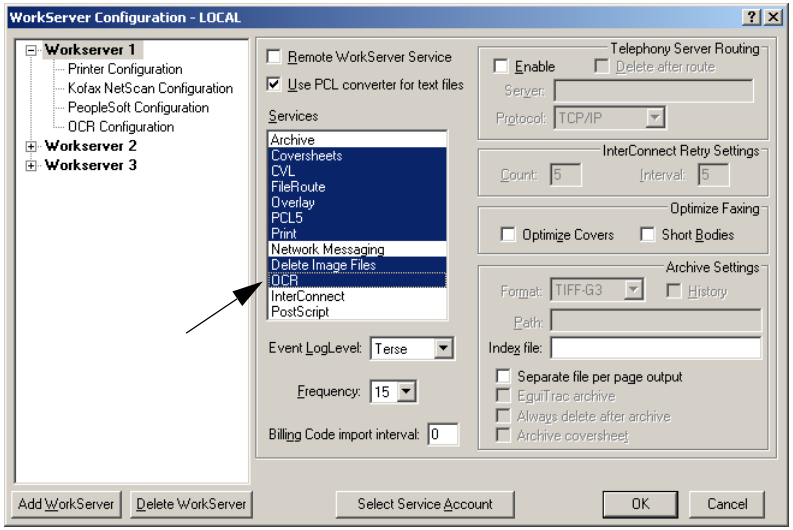
A copy of the OCR'ed text file is saved with the fax image which lets fax recipients edit and work with the content of their faxes. Fax client applications can be set to automatically convert all received faxes into text, or users may choose to convert selected faxes only.

Optical character recognition with the OCR Converter can be performed only on faxes that contain printed text. OCR technology does not work with most handwritten text.

Enabling OCR Processing on the WorkServers

To enable OCR functionality on the RightFax server, it must be added as a process to at least one WorkServer. Run the WorkServer configuration program from Windows Control Panel on the RightFax server to display the **WorkServer Configuration** dialog box. In the component tree in the left pane, select the WorkServer that you want to perform OCR processing. You can enable OCR processing on as many WorkServers as you want.

Figure 21.1 The WorkServer Configuration dialog box



To enable OCR processing, click **OCR** in the **Services** list.

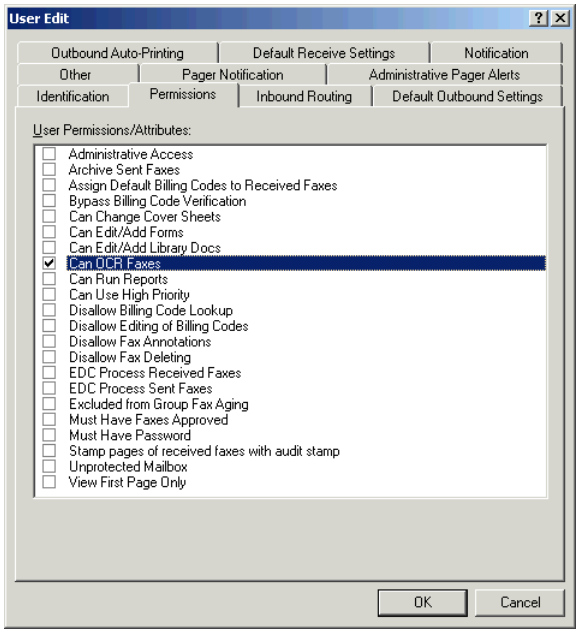
Configuring RightFax Users for OCR Conversion

You must grant each individual RightFax user permission to perform optical character recognition on received faxes. Because OCR conversion is very processor-intensive on the RightFax WorkServers responsible for OCR conversion, you may choose to restrict OCR rights to a limited number of users.

Granting OCR permission to RightFax users

To give a RightFax user permission to use optical character recognition features, run Enterprise Fax Manager, and double-click the user to open the **User Edit** dialog box. Click the **Permissions** tab and select **Can OCR Faxes**.

Figure 21.2 Enabling OCR for RightFax Users



Configuring users for automatic OCR conversion of all received faxes

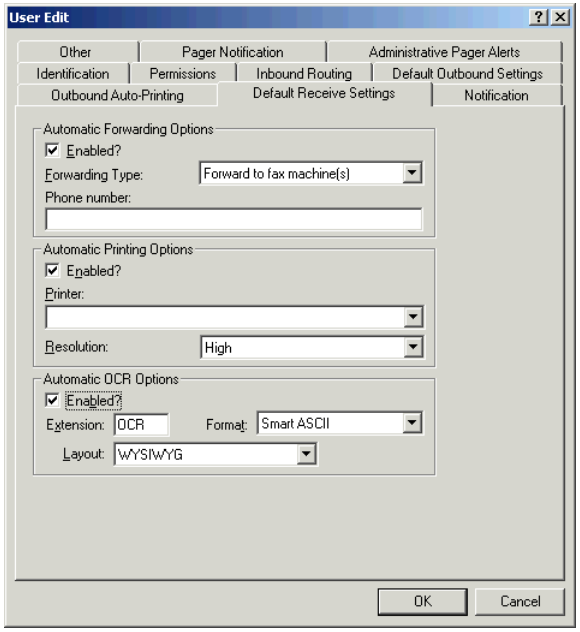
To configure a user for automatic OCR conversion of all received faxes, run Enterprise Fax Manager, and double-click the user to open the **User Edit** dialog box. Click the **Default Receive Settings** tab.

Under **Automatic OCR Options**, select the **Enabled** check box to automatically convert all received faxes using OCR. Enter a three-letter file extension for the output file in the **Extension** box.

In the **Format** box, select the text format used to interpret your fax pages. "ASCII" produces a plain text file. "Smart ASCII" approximates the original format. "RTF" (rich text format) preserves fonts and formatting but is only available to Windows users.

In the **Layout** box, select how you want the text to be formatted on the page. “WYSIWYG” will try to read the fax in the layout it sees. If, for instance, RightFax sees that the fax has three columns, it will try to read the document in column style. “Left Justified” displays the text starting from the left margin of the fax.

Figure 21.3 Configuring Users for Automatic OCR Conversion



Opening OCR Text Files

The method you use to view OCR-converted faxes depends on the fax client application you use. If you use an email gateway application as your fax client (such as Microsoft® Exchange or Lotus® Notes®), OCR-converted faxes will arrive as file attachments to e-mail messages along with the associated fax image file. These text file attachments can be viewed and edited exactly like any other email attachment.

If you use FaxUtil or RightFax Web Access as your fax client, OCR-converted faxes are stored in the RightFax database along with their associated fax image files. If a fax has an associated OCR text file, a special OCR icon will appear next to the fax entry.

Using OCR to Route Received Faxes

When you route using OCR, the text on the received fax cover sheet is compared to a customized routing table that contains names and other text that identifies RightFax users in your organization. When a match is found, the fax is routed to the specified RightFax user.

Important *Because large organizations can have several members with the same or very similar names, OCR routing is not recommended as a primary routing method. For large organizations, Captaris recommends using OCR routing only as a backup for other fax routing methods (described in* Chapter 22, “Routing Inbound Faxes”*). With other fax routing methods, a mailbox can be configured that receives all “lost” faxes whose intended recipient cannot be determined. These “lost” fax mailboxes can then be configured for OCR routing.*

Configuring RightFax to Perform OCR Routing

To use OCR routing, you must configure a "central" mailbox from which the faxes will be routed, and then you must create a custom routing table that contains RightFax user IDs and their associated text. When a fax arrives in the central mailbox, the cover sheet text is checked against the routing table for a match. If a match is found, the fax is routed. If no match is found, the fax remains in the central mailbox.

Creating and configuring the OCR central mailbox

To use OCR to route faxes to their intended recipients, the faxes must arrive in one or more "central" mailboxes. These mailboxes are configured so that all incoming faxes are rerouted using OCR routing.

To create a central mailbox for OCR routing, run Enterprise Fax Manager and add a new RightFax user called "OCR," and then edit the user properties. Click the **Inbound Routing** tab, and enter "0" (zero) in the **Routing Code** box. This will cause all incoming faxes whose owners cannot be determined to automatically route to this mailbox. Next, click the **Inbound Routing** tab, and click **OCR** in the **Routing Type** box. This configures the mailbox to perform OCR routing on each received fax.

Note *Only the central mailbox should have its **Routing Type** set to **OCR**. Do not set the routing type of individual RightFax user mailboxes to OCR or each user's mailbox will attempt to reroute all received faxes, potentially creating endless routing loops.*

In most cases, one central mailbox performing OCR routing is sufficient. If the needs of your organization require you to create *multiple* central mailboxes, each mailbox must have a routing code that corresponds to a channel extension configured in the BoardServer.

Creating the OCR routing table

The OCR routing table is a text file that is used to link text on the fax cover sheet to specific RightFax user IDs. This file must be called Route.txt and it must be located in the RightFax\WorkSrv folder on the RightFax server. A sample Route.txt file is provided in this folder for you to use as an example.

Each line of Route.txt must contain a separate entry in this format:

UserID MatchingText

Where *UserID* is the RightFax user ID to route to, and *MatchingText* is the fax cover sheet text that is associated with that user. The user ID and matching text must be separated by a single space. The matching text *may* contain spaces and other special characters. Here is an example of a short OCR routing table:

JCD Jane
JCD Doe
JCD Jane Doe
JCD Director of Marketing
JCD 555-1212
JSS John Smith
JSS 555-1000

The matching text must be matched exactly in order to route the fax. In this example, a match on the word "Smith," if not preceded by "John," will *not* be routed.

RightFax scans the routing table from top to bottom, routing the fax to the first match. For this reason, the order in which you list user IDs in this file may be important. You should place your highest priority user IDs (executive management, for example) at the top of the list so they will be sure to receive their faxes even if matching text conflicts with other users in your organization.

Note *Because OCR routing requires an exact match between your OCR routing table and the cover sheet text, you should remove any blank spaces at the end of your OCR routing table entries. If the matching text includes trailing spaces, those spaces will be required as part of the text to match.*

Creating alternate routing tables

If you have set up multiple central mailboxes for OCR routing, you can use a separate routing table for each mailbox. To specify a file name for the routing table other than Route.txt, run Enterprise Fax manager and edit the user ID for the mailbox. Click the **Inbound Routing** tab, and enter the file name for the routing table in the **Routing Info** box. The new routing table file must be located in the same RightFax\WorkSrv folder and use the same format as the Route.txt OCR routing file.

When you specify a new file name for the central mailbox routing table, you can also specify a RightFax user ID to which unmatched faxes will automatically route. After the file name, type a comma followed by the RightFax user ID of the user to route the unmatched faxes to. For example, if you have set up a special OCR central mailbox that only receives and routes faxes to the Sales department, you can specify a routing table called Sales.txt and have all unmatched faxes automatically route to Jane Doe the Sales Manager (whose RightFax user ID is JCD) by entering this line in the **Routing Info** box of the Sales central mailbox:

SALES.TXT,JCD

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Chapter 22

Routing Inbound Faxes

The RightFax server provides several methods for routing received faxes to their intended recipients in your organization. The routing method you choose will be based primarily on the type of telephone service you use.

To route faxes to users, you assign a unique "routing code" to each user. RightFax attempts to match information received with the fax (such as digits dialed by or separately entered by the fax sender) to one of your users' routing codes. This user is then determined to be the intended fax recipient.

After RightFax has determined who should receive an incoming fax, you then have several options for how that fax should be delivered (for example, to the FaxUtil mailbox or attached to an e-mail message).

Configuring DID/DNIS Routing

Direct Inward Dial (DID) lines support inbound phone service only, and Dialed Number Identification Service (DNIS) supports bi-directional faxing. These two methods are considered the most accurate for fax routing.

A DID/DNIS interface assigns multiple telephone numbers to a single pair of wires (a telephone trunk). Often these numbers are sequential and all contain the same prefix. For example, a single DID/DNIS line may have 20 numbers associated with it ranging from 555-1001 to 555-1020. Your phone company will forward any or all of these dialed numbers to your system along with the call. RightFax then uses these included numbers to route faxes to the proper recipients.

Each RightFax user is assigned a personal fax mailbox that is assigned a DID/DNIS number (routing code). When a call comes in with a valid DID/DNIS number, the fax is placed in the corresponding user's fax mailbox.

Routing codes should be assigned to users in accordance with the number of DID/DNIS digits for which your services are configured. For example, if you have a set of DID/DNIS numbers of 555-1001 through 555-1020, and your phone service is configured to forward the last four digits of the dialed number, then you would assign the routing codes 1001 through 1020 to your users. If you have three digit service, then you would assign the routing codes 001 through 020 to your users.

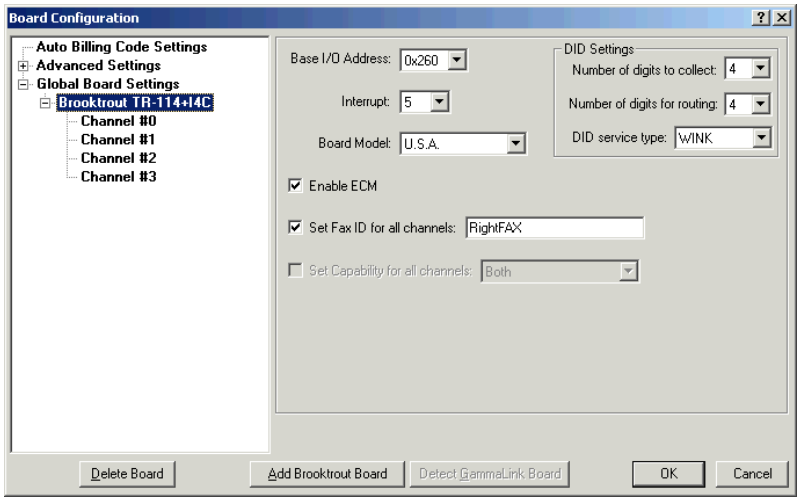
Configuring RightFax for DID/DNIS routing

Each fax board must be configured for DID/DNIS routing separately. To configure the RightFax server and fax board(s) for DID/DNIS routing, run the RightFax BoardServer configuration program.

Configuring Brooktrout boards

For Brooktrout fax boards, click the board name listed under **Global Board Settings**.

Figure 22.1 The Brooktrout Global Board Settings Dialog Box

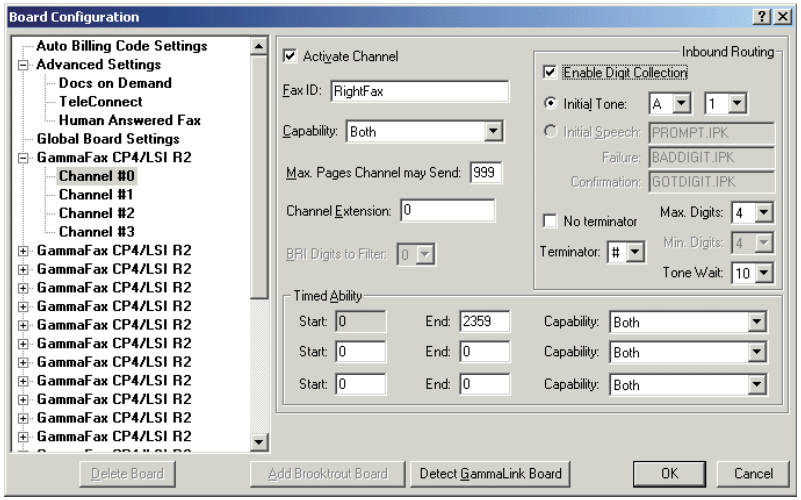


In the **Number of Digits to Collect** box, enter the number of dialed digits that will be forwarded to the system by the phone company. In the **Number of Digits for Routing** box, enter the number of collected digits that you will use when assigning routing codes to users. In the **DID Service Type** box, enter the type of service that the phone company provides, either "Immediate" or "Wink."

Configuring GammaLink boards

For GammaLink fax boards, click the board name listed under **Global Board Settings**. Under **Digit Collection**, set **Maximum Digits for Routing** to the number of dialed digits that will be forwarded to the system by the phone company. Then, for each channel listed under the GammaLink fax boards, click the channel number.

Figure 22.2 GammaLink Channel Settings Dialog Box



Check **Enable Digit Collection**. Select **Initial Tone** and set it to "A" and "0" (zero). Check **No Terminator** and set **Max Digits** to the number of dialed digits that will be forwarded to the system by the phone company. Repeat this configuration for each GammaLink fax channel.

Configuring user routing information

To assign a DID/DNIS routing code to a user, edit the user profile in Enterprise Fax Manager (see "Editing user properties" on page 123), click the **Inbound Routing** tab, and enter the user's DID/DNIS phone extension in the **Routing Code** box. The number you enter here must have the exact number of digits that you specified in the **Number of Digits for Routing** box when configuring the fax boards.

Configuring DTMF Routing

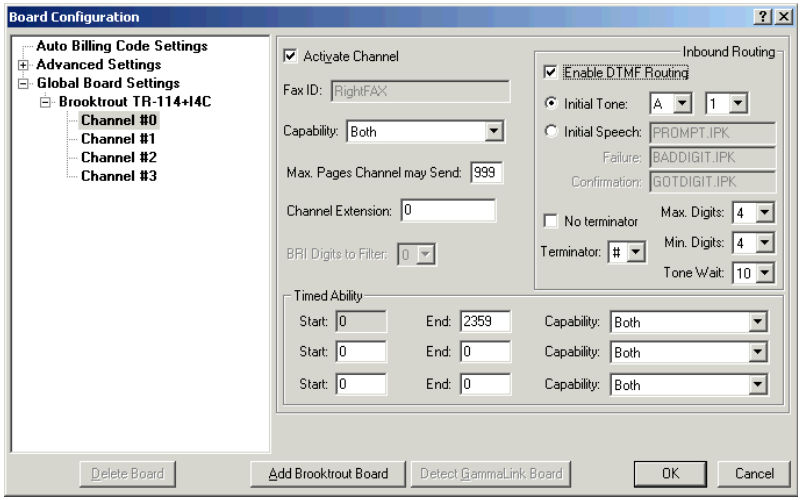
Unlike DID/DNIS routing, DTMF uses Plain Old Telephone Service (POTS) with a single phone number assigned to each phone line. The person sending the fax dials this number and the call connects normally. However, before the fax transmission starts, the fax board prompts the caller with a tone or voice prompt to enter a routing code for the fax they are sending.

If the caller enters a valid routing code (one that is assigned to a RightFax user) the fax is placed in that user's mailbox. If the caller does not enter a code before a certain amount of time has elapsed, or if the code does not correspond to a valid RightFax mailbox, the fax is placed in the mailbox that corresponds to the **Channel Extension** setting for the channel it arrived on (or to the administrator of the Everyone group if no channel extension match is found).

Configuring RightFax for DTMF routing

Each fax channel must be configured for DTMF routing separately. To configure the RightFax server and fax board(s) for DTMF routing, run the RightFax BoardServer configuration program. Click each channel number under the fax boards.

Figure 22.3 Brooktrout Channel Settings Dialog Box



1. Under **Inbound Routing**, select the **Enable DTMF Routing** check box.
2. Click **Initial Tone** or **Initial Speech** (speech is only available with Brooktrout fax boards) and configure the tone or speech parameters.
3. Select the **No Terminator** check box if you don't want to require the caller to press [#] or [*] after entering the routing code. If you want to require the caller to press [#] or [*] after entering the routing code, select the terminator character you want in the **Terminator** box.

4. In the **Max. Digits** box, enter the maximum number of digits the caller must enter for a valid DTMF routing code. In the **Min. Digits** box, enter the minimum number of digits the caller must enter for a valid DTMF routing code.
5. In the **Tone Wait** box, enter the length of time (in seconds) after the prompt for the caller to enter the routing code.

Configuring user routing information

To assign a DTMF routing code to a user, edit the user profile in Enterprise Fax Manager (see "Editing user properties" on page 123), click the **Inbound Routing** tab, and enter the user's DTMF code in the **Routing Code** box. The digits entered here correspond directly to the digits entered by the caller when prompted. Although each user must have a unique DTMF routing code, the assigned codes can be of variable length.

Configuring OCR Routing

For information on using Optical Character Recognition for inbound routing, see Chapter 21, "Using Optical Character Recognition".

Configuring Channel Routing

With channel routing, faxes are routed based on the phone line on which they are received. This can work well if you have, for example, four departments and four incoming fax lines (channels). Each department uses a unique fax number, and all faxes to that department are delivered to a single fax mailbox. Each of the members of the department can check the department mailbox for faxes, the faxes can be directed to a printer located in the department, or the faxes can be routed manually or via OCR routing to the intended recipient.

Channel routing with digital fax boards

Channel routing cannot be used with Intel Dialogic digital fax boards.

To implement channel routing with other digital fax boards, edit the Windows registry entry HKEY_LOCAL_MACHINE\ Software\ RightFax\BoardServer. Create the REG_DWORD entry **DoDigitalChanRoute** and set the value to 1.

After creating the entry, configure the routing with the following instructions.

Configuring RightFax for channel routing

Each fax channel must be configured for channel routing separately. To configure the RightFax server and fax boards for channel routing, run the RightFax BoardServer configuration program.

Click each channel number under the fax board names. For each channel, set the **Channel Extension** to a number between 1 and 99. This setting will correspond to the Routing Code of the mailbox that is to receive all faxes coming in on this channel. You can also set two or more channels to the same Routing Extension if you want a single mailbox to receive faxes from multiple channels.

Configuring recipient mailboxes

To assign channel extensions to mailboxes, edit the user profile for each recipient mailbox in Enterprise Fax Manager. Click the **Inbound Routing** tab and enter the **Channel Extension** setting of the channel that you want to receive faxes from in the **Routing Code** box.

Configuring ANI Routing

ANI (Automatic Number Identification) is a service provided by telephone service providers. It precedes each incoming phone call with a series of digits that includes (among other things) the phone number dialing in. Although the ANI data format differs slightly from carrier to carrier, the basic format is:

KP+I+7(or 10)digits+ST

where *KP* is the key pulse, *I* is an information digit, *7(or 10) digits* is the calling party station directory number, and *ST* is a start signal.

RightFax can use ANI information to route inbound faxes to a user mailbox based on the phone number that the fax originated from. Using ANI routing, all faxes from a certain phone number can be routed to a specific recipient. Similarly, all faxes originating from a specific area code or telephone number prefix can be routed to a specific recipient. This routing method can be useful to sales departments for routing faxes according to sales territories.

ANI routing is not available with analog fax boards.

Configuring RightFax for ANI routing

To route faxes with ANI routing, the faxes must arrive in one "central" mailbox. This mailbox is configured so that all incoming faxes are rerouted using ANI routing.

To create a central mailbox for ANI routing, run Enterprise Fax Manager and add a new RightFax user called "ANI," and then edit the user properties. Click the **Inbound Routing** tab, and enter "0" (zero) in the **Routing Code** box. This will cause all incoming faxes whose owners cannot be determined to automatically route to this mailbox. Next, click the **Inbound Routing** tab, and click **ANI** in the **Routing Type** box. This configures the mailbox to perform ANI routing on each received fax.

Note *Only the central mailbox should have its **Routing Type** set to **ANI**. Do not set the routing type of individual RightFax user mailboxes to ANI or each user's mailbox will attempt to reroute all received faxes, potentially creating endless routing loops.*

In most cases, one central mailbox performing ANI routing is sufficient. If the needs of your organization require you to create *multiple* central mailboxes, each mailbox must have a routing code that corresponds to a channel extension configured in the BoardServer.

Because the ANI data you receive from your service provider probably includes extra informational digits, you must specify the pattern of the ANI digits so that the extra digits can be removed prior to ANI routing. To specify this pattern, open the RightFax BoardServer service in Enterprise Fax Manager and select **Global**

Board Settings. In the **ANI Pattern Matching** box, enter the pattern of ANI data you receive using the symbols in the following table.

Table 22a ANI Pattern Symbols

Symbol	Represents
*	Matches one or more asterisk characters in the source string.
#	Matches one or more pound characters in the source string.
X	Matches one or more digits belonging to the ANI number. (This is the only number sequence that will be used for ANI routing, all other information is ignored.)
Y	Matches one or more digits belonging to the DNIS number.
Z	Matches one or more extraneous digits which are discarded.
Max. Modifier (1–9)	A digit that represents a maximum character match for any of these symbols described here. (For example, "x2*y" will match x***...yyy... or xx***...yyy....)
Literal Digits (0–9 and A–D)	Valid phone digits. (Separate literal digits from Max. Modifiers with a space.)

Example 1x10*y = 1xxxxxxxxx***...yyy...
x2z*y2 2 = xxzzz...***...yy2

Finally, on the RightFax server, create an ASCII file called Ani.tbl in the RightFax\Bin folder. This file is the ANI routing table. Each line must contain a separate entry using this format:

RoutingCode ANIString

Where *RoutingCode* is the routing code setting of the user to route to and *ANIString* is the ANI data represented by 'X' characters in the ANI pattern match. The ANI string and routing code must be separated by a single space. Here is an example of a short ANI routing table:

1001 15205551212
1002 15205552345
1003 15205550982
1004 15203201000

Creating alternate routing tables

You can set up multiple central mailboxes for ANI routing.

Example You could set up a mailbox that receives and routes faxes to the Sales department. Create a central mailbox for Sales, and specify a routing table called Sales.tbl.

To specify the routing table for the mailbox, edit the user profile for the mailbox in Enterprise Fax Manager, click the **Inbound Routing** tab, and type the file name in the **Routing Info** box. The custom routing table files must be located in the RightFax\Bin folder.

Configuring CSID Routing

CSID (caller subscriber identification) routing routes inbound faxes to a specific mailbox based on the ID of the sending device. Using CSID routing, faxes sent from a specific fax number can be routed to a specific recipient.

This method relies on data from the sending device, which may or may not include a fax phone number. The CSID may be the company name or other data, and it may be impossible to match with data in RightFax. For this reason, CSID routing can be an unreliable method of routing.

CSID routing precludes some other routing types like DTMF and channel routing. However, routing types that occur after arriving in a fax mailbox (like OCR routing) can still be used. If an ID for the

sending device is not transmitted or cannot be determined, the fax is placed in the mailbox that corresponds to the **Channel Extension** setting for the channel it arrived on (or to the administrator of the Everyone group if no channel extension match is found).

Configuring RightFax for CSID routing

To configure RightFax for CSID routing, run the RightFax Server configuration program. Click the **General** tab and select **Enable CSID Routing**.

On the RightFax server, create an ASCII file called CSID.tbl in the RightFax\Bin folder. The CSID.tbl file is the CSID routing table. Each line must contain a separate entry using this format:

RoutingCode CSID

where *RoutingCode* is the routing code setting of the user to route to, and *CSID* is the CSID information (either text or a phone number) that, when sent, will route to that user. The routing code and CSID must be separated by a single space. The CSID text can contain spaces and other special characters. Here is an example of a short CSID routing table:

1001 520*
1002 Acme, Inc.
1003 RIGHTFAX

The asterisk (*) wildcard character can be used to represent any unspecified characters at the end of the CSID string. This wildcard can only be used at the end of the CSID string in the CSID.tbl file, and all characters preceding the wildcard must match the incoming CSID exactly for routing to be successful. In the preceding example, all incoming faxes with CSIDs that indicate they originated from area code 520 will be routed to the RightFax user with the routing code 1001.

Configuring Delivery Methods for Users

After you have configured a routing method for your organization, you have several options for the delivery method to the user. The delivery method is configured individually for each RightFax user.

To assign a delivery method to a user

1. Run Enterprise Fax Manager (see "Starting Enterprise Fax Manager" on page 111), and click **Users** under the RightFax server in the Fax Server Tree. The list of users appears in the right pane of the window.
2. Double-click a user to edit the user's profile. The **User Edit** dialog box opens.
3. Click the **Inbound Routing** tab, and select the delivery method in the **Routing Type** box. You have the following delivery options:
   - "Fax mailbox" (page 237)
   - "E-mail" (page 237)
   - "Network directory" (page 238)
   - "OCR" (page 239)
   - "RightFax InterConnect" (page 239)
   - "TRS NetComm message server" (page 239)
   - "Telephony server" (page 239)

Fax mailbox

When you select this routing type, incoming faxes will be routed to the user's FaxUtil mailbox.

E-mail

When you select this routing type, incoming faxes are forwarded to the user as an e-mail message. If you select this option, you must also provide the necessary routing information in the **Routing Info** box so that RightFax can find the correct e-mail mailbox. For

information on routing faxes to an e-mail mailbox see "Receiving Faxes via E-mail" on page 284, or refer to the documentation included with the RightFax e-mail gateway module.

Network directory

When you select this routing type, incoming faxes will be sent to a network folder that you specify. If you select this option, you must type the path to the folder in the **Routing Info** box and/or choose from several macros as to how you would like the faxes stored (such as by month, day, or billing code).

Example The following entry in the **Routing Info** box would route faxes to the RightFax\Faxin folder on the \SYS volume of the FILESERV file server:

\\fileserv\sys\rightfax\faxin

In this example, the RightFax fax server would have to be attached to FILESERV with sufficient privileges to write to the Faxin folder. RightFax will create any specified folders, assuming it has the necessary network access privileges.

The destination path can also specify one or more folder macros that cause unique or descriptive folders to be created dynamically. The following table lists the available folder macros.

Table 22b Dynamic Folder Generation Macros

Macro	Definition
~1	Date (YYYYMMDD)
~2	Day of the week (SUN–SAT)
~3	Month (JAN–DEC)
~4	Year (YYYY)
~5	Day of the month (DD)
~6	Month as decimal (01–12)
~7	User ID (truncated to 11 characters)
~8	Week of year as decimal (00–51)
~9	Billing Code 1 (truncated to 11 characters)
~0	Billing Code 2 (truncated to 11 characters)
~A	Remote ID (left to right, truncated to 11 characters)
~B	Remote ID (right to left, truncated to 11 characters)

Example Entering \\FILESERV\SYS\RIGHTFAX\~1 will cause the fax server to create a folder \\FILESERV\SYS\RIGHTFAX\20020101 when storing a fax received on January 1, 2002.

The file name stored in this folder is a unique name assigned by the RightFax server and cannot be changed. The total length of the path, after macro replacement, cannot exceed 128 characters.

Note *Only received faxes will be routed to a network folder using this method. If a sent fax is forwarded or routed from one RightFax user to another RightFax user with a network routing destination specified, the fax will appear in the recipient's fax mailbox, but will not appear in the specified network folder.*

OCR

When you select this routing type, incoming faxes will be OCRed for recognizable character strings, compared to a table of RightFax user IDs and matching strings, and, when a match is found, routed to the appropriate user. No additional routing information is necessary if you plan to use the default OCR routing table Route.txt.

This routing type requires RightFax OCR Routing module, purchased separately.

RightFax InterConnect

When you select this routing type, incoming faxes will be redirected from one RightFax server to another. In the **Routing Info** box, enter the destination RightFax server name. The InterConnect service must be enabled on at least one of the receiving RightFax server's WorkServers, and the RightFax user account (user ID) of the fax recipient must exist on both RightFax servers.

Auto-printing, auto-OCR, and auto-forwarding are not available with this routing type, because they are performed by the destination fax server only. This routing type requires the RightFax Enterprise server.

Note *By default, faxes routed from one RightFax server to another RightFax server in a different time zone will have the time and date stamp from the originating server. To change this so that faxes have the time and date of the receiving server, add a REG_DWORD value called InterconnectSetTZ to HKEY_LOCAL_MACHINE\Software\RightFax\WorkServer\WorkSrv# (the number of the WorkServer performing Interconnect) and set the value data to 1.*

TRS NetComm message server

When you select this routing type, incoming faxes will be routed to your organization's TRS NetComm message server. No additional routing information is necessary.

Telephony server

RightFax can route incoming faxes to a telephony server mailbox. In the **Routing Info** box, enter the telephony server routing information using this format:

(NP: or TCP:)server/source/sourcepassword/destination

Where *NP: or TCP:* represents the network protocol, either named pipes or TCP/IP.

Distributing Faxes to a Group of Users

Smart Fax Distribution is a method of distributing received faxes between all the members of a user group. This can be useful, for example, if you want to distribute all incoming purchase orders among all members of your order entry group for processing.

With Smart Fax Distribution, the user group that will share the faxes is assigned a **Routing Code**. Faxes that are routed to the group ID are then distributed between the group members (using each individual's configured routing method) either round-robin or according to each user's ability to process the faxes.

To configure Smart Fax Distribution for user groups, see "The Smart Fax Distribution tab" on page 140.

Assigning Unique ID Numbers to Fax File Names and Routing to a Network Folder

Faxes stored in a network folder can be assigned unique ID numbers, and the ID numbers can be used as the file names. By default, RightFax generates and assigns unique ID numbers to each fax it receives. You can specify an alternative ID number scheme if you want to store faxes on a network folder. For example, you can specify an ID that consists of the server name, date, and page count.

This unique ID number is printed on the fax page in the receipt terminal information (RTI) line.

To assign unique IDs, complete the following tasks:

1. Format the unique ID (page 240)
2. Configure RightFax to use the unique ID as the file name (page 240)
3. Configure RightFax to create a separate file for each fax page (page 240)
4. Specify the users whose faxes should be routed to the folder (page 240)

Formatting the unique ID

Enable the RTI line and define the unique ID that should print on each page by specifying the format in the RTI line. To do this, see "Defining an RTI line" on page 81.

You can include any text and variables in the RTI line, however the line that prints is limited to 15 characters.

Caution *The variable ~A (the unique ID assigned by RightFax) should not be used, because the unique ID of the fax will be changed to reflect the RTI line value.*

Configuring RightFax to use the unique ID as the file name

1. Create a registry entry that instructs RightFax to use the unique ID as the file name for the fax.

   In HKEY_LOCAL_MACHINE\Software\RightFax\FaxServer, add the registry value UseReceiveStampUnique with the data type REG_DWORD and value of 1.
2. Add the registry entry to each WorkServer key in HKEY_LOCAL_MACHINE\Software\RightFax\WorkServer.

Configuring RightFax to create a separate file for each fax page

Follow these steps on each server in order to route received faxes to a network folder.

1. In Enterprise Fax Manager, select the server.
2. In the **Service Name** list, double-click **RightFax WorkServer# Module**. The **WorkServer Configuration** dialog box opens.
3. Under **Services**, select **FileRoute**, and click to clear the selection of **Archive**.
4. Under **Archive Settings**, select the **Separate File Per Page Output** check box.
5. Repeat these steps for each WorkServer that you want to handle file routing.

Specifying the users whose faxes should be routed to the network folder

Follow these steps for each user whose faxes should be routed to the network folder.

1. In Enterprise Fax Manager, edit each user whose received faxes should be routed. In the **User Edit** dialog box, click the **Permissions** tab. Select the check box **Stamp Pages of Received Faxes with Audit Stamp**.
2. Click the **Inbound Routing** tab. In the **Routing Type** box, select **Network Directory**.
3. In the **File Format** box, select TIFF (G3-1D) or TIFF (G4).
4. In the **Routing Info** box, type the name of the folder where the faxes will be saved.

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Chapter 23

Responding to Inbound Faxes with AutoReply

The AutoReply service monitors one or more RightFax mailboxes for inbound faxes, and it faxes replies to the sender (based on each sender's caller service identification (CSID) number). If no valid CSID number is included with the inbound fax, the fax can be automatically printed or forwarded to another RightFax mailbox so that a reply can be sent manually.

The faxed reply is fully customizable. You can format the reply to include personalized messages, relevant fax addressing information, your organization's logo or other graphic images, and a copy of the cover page from the received fax being replied to.

Before You Begin

The AutoReply service should be installed using an operating system that can read and write to the Windows registry–Windows 2000 or Windows 2003. To create a service, the person installing it must have administrative rights to the computer.

For each user that will be monitored for automatic replies, inbound routing should not be set to delete after routing, or AutoReply will fail. To change this setting, see "Editing user properties" on page 123.

The AutoReply fax is sent from one user account in RightFax. It is recommended that you create a unique user ID from which all AutoReply faxes will be sent. To create a user ID, "Creating a User Profile" on page 123.

To format the fax that is sent as a reply, see "Customizing the Reply Fax" on page 244.

Installing the AutoReply Service

The AutoReply service can be installed on RightFax client computers either from the RightFax software CD or from the client install network file share (both described in the *RightFax Installation Guide*.) On the **Setup Features** screen in the Install Wizard, expand the **RightFax Clients** heading in the components tree and select the **AutoReply Client** component to install. Complete the installation according to the instructions in the *RightFax Installation Guide*.

To configure the AutoReply service

1. On the RightFax server, open a view of the RightFax\AutoReply folder and run ARWizard.exe. This starts the AutoReply wizard.
2. In the **Add/Remove RightFax Server** window, click **Set up and configure a new RightFax server**. Click **Next**.

3. In the **Choose RightFax Server** window, specify the server that AutoReply will monitor. Enter the log on user ID and password. Click **Connect** to connect to the server, and then click **Next**.
4. In the **Choose an AutoReply User** window, enter the RightFax user ID from which reply faxes will be sent. For each server, you can specify just one user ID from which all reply faxes will be sent. Click **Next**.
5. In the **Select Monitored Users** window, create a list of users to monitor for the AutoReply service. In the **Available users** list, click one or more users, and then click **Add**. The users appear in the **Monitored users** list. When you have created the list, click **Next**.
6. In the **Edit Monitored Users** window, choose the AutoReply response for the monitored users. To create one method of response for all users, in the **Select the monitored user ID** box, click **Default**. Or, choose a user and the responses for that user.

   You have the following options for AutoReply responses.

   Table 23a AutoReply Responses

Response	Enter this
Route the received fax to another user after an AutoReply is sent.	The user ID where the fax should be routed.
Route the received fax to another user if an AutoReply cannot be sent. (If no valid CSID number is included with the received fax, an AutoReply cannot be sent.)	The user ID where the fax should be routed.
Print the received fax if an AutoReply cannot be sent. (If no valid CSID number is included with the received fax, an AutoReply cannot be sent.)	The printer ID for the printer where the fax should print. (Enter a printer ID defined in Enterprise Fax Manager.)

   When finished, click **Next**.
7. In the **Enter File Names** window, enter the location of the file to use for formatting the AutoReply fax. A sample file called Format.ini is available in the RightFax\AutoReply \Samples folder. It is recommended that you modify this sample file to fit your organization's needs. (To format the AutoReply fax, see "Customizing the Reply Fax" on page 244.) Click **Next**.
8. Click **Finish**.

Managing AutoReply from a Remote Computer

You can manage AutoReply from a computer that is remote from the server. To do so, first install the AutoReply configuration program on the remote computer. Next, run the configuration program on the remote computer.

Installing AutoReply on a remote computer

This process installs the AutoReply wizard and configuration programs to the local computer in the RightFax folder. It creates a shortcut in the **Start** menu to the programs you install.

On the remote computer, open a view of the RightFax\Autoreply folder on the RightFax server, and run Setup.exe. During the installation, you can choose to install the following components:

- The AutoReply configuration program, with which users can add and remove users and specify the location of the AutoReply fax format file.
- The AutoReply wizard, with which users can add and remove servers and configure the service.

To run the AutoReply configuration program

1. On the remote computer, open a view of the RightFax\Autoreply folder on the RightFax server and run ARConfig.exe. The **AutoReply Configuration** dialog box opens.
2. In the **Connection** tab, specify the server to connect to. Enter your log on user ID and password, and then click **Connect** to connect to the server.
3. In the **AutoReply User ID** tab, enter the RightFax user ID from which reply faxes will be sent. For each server, you can specify just one user ID from which all reply faxes will be sent.
4. In the **Monitored Users** tab, create a list of users to monitor for the AutoReply service. In the **Available users** list, click one or more users, and then click **Add**. The users appear in the **Monitored users** list.

   In the **Monitored User Configuration** tab, choose the AutoReply response for the monitored users. To create one method of response for all users, in the **Select the monitored user ID** box, click **Default**. Or, choose a user and the responses for that user.

   You have the following options for AutoReply responses

Table 23b AutoReply Responses

Response	Enter this
Route the received fax to another user after an AutoReply is sent.	The user ID where the fax should be routed.
Route the received fax to another user if an AutoReply cannot be sent. (If no valid CSID number is included with the received fax, an AutoReply cannot be sent.)	The user ID where the fax should be routed.
Print the received fax if an AutoReply cannot be sent. (If no valid CSID number is included with the received fax, an AutoReply cannot be sent.)	The printer ID for the printer where the fax should print. (Enter a printer ID defined in Enterprise Fax Manager.)

5. In the **Format File** tab, enter the location of the file to use for formatting the AutoReply fax. (To format the AutoReply fax, see "Customizing the Reply Fax" on page 244.)
6. Click **OK**.

Customizing the Reply Fax

You can specify the appearance of your reply fax. The appearance is defined in a text file.

The text file can have any file name and can be located in any folder accessible by the fax server. Specify the path and file name in the AutoReply configuration.

A sample file called Format.ini is available in the RightFax\AutoReply\Samples folder. It is recommended that you modify the sample file to fit your organization's needs. This file includes layout settings for a reply fax page.

The Format.ini file is divided into sections. The General section defines values that apply to the entire fax page. The Frame sections each define the location of a frame on the fax page and the contents of the frame. You can place an unlimited number of frames on a page..

Table 23c Options in the General Section

Option	Value	Definition
Font	Name, Size	The default font that will be used for text if a font is not specified for a frame.
OutputSize	Letter, A4, Legal	The size of the page for the reply fax.

Table 23d Options in the Frame Section

Option	Value	Definition
Area	Left, Top, Right, Bottom	The boundaries of the frame. The left and right values are measured from the left edge of the page. The top and bottom values are measured from the top edge of the page. For example, a frame that fills the lower-right quarter of a letter-size page might have this value: 4.25,5.5,8,10.5.
Border	Width	The width (in pixels) of the border to draw. Omit or set to zero for no border.
File	File name	The name of the file to include in the frame. This can be either a text file (if the Type option is set to Text) or graphic file (if the Type option is set to Graphic). For graphic files, monochrome bitmap files are recommended for best image rendering. To add variables to the text in a text file, see "Using variables in text" on page 245.
Font	Name,Size,Style	The font that will be used for all text in this frame. Specify the name of the font, the point size, and (optionally) the style (Bold, Italic, or both).
Horizontal-Alignment	Left, Center, or Right	The horizontal alignment of the text or graphic within the frame.

Table 23d Options in the Frame Section (Continued)

Option	Value	Definition
Text	Text	If you have set the Type option to Text, this option supplies the text that will appear. Note that this option supports a single line of text only. To include a longer text message, use the File option. To add variables to the text, "Using variables in text" on page 245.
Type	Text, Graphic, or FaxPage	Each frame must be one of these types: Text frames display literal text from the Text option or text from a text file specified in the File option. Graphic frames display the graphic file specified in the File option, scaled to fill the frame. FaxPage frames display the first page of the fax that is being replied to, scaled to fit the frame.
Vertical-Alignment	Top, Center, Bottom, or Wrap	The vertical alignment of the text or graphic within the frame. The Wrap value should be used for unformatted text to wrap the text to fit within the boundaries of the frame.

Using variables in text

Text in the format file and text included from an external file can contain one or more of the following variables.

For example, the text TO: Fax Sender at ~1 would appear in the reply fax as TO: Fax Sender at 520-555-0100.

Table 23e Text Variables

Variable	Definition
~1	Destination fax phone number.
~2	Number of pages in the received fax.
~3	Date and time the fax was received (the start of receipt). The date and time will appear as `Date Time [Timezone]`, where the `Date` and `Time` are formatted according to the Regional settings in Control Panel.
~5	Unique ID of the fax (assigned by the RightFax server).

Troubleshooting the AutoReply Service

To troubleshoot the service, you can run AutoReply in a command window.

1. In Enterprise Fax Manager, stop the AutoReply service.
2. Open a command window such as the MS-DOS prompt.
3. Change to the RightFax\AutoReply folder.
4. Type **AutoReply** and press ENTER. The AutoReply executable does not include any command line switches.

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Chapter 24

Creating, Sending, and Deleting Faxes

With the RightFax client applications, you can create and fax documents directly from your computer. You can create and send complex documents directly from a word processor or other business application, select and fax existing document files with the click of a button, or create a customized fax by combining files, library documents, addressing information, and your own notes from one convenient dialog box. With one of the RightFax e-mail gateway modules, you can also send e-mail messages as faxes.

To enable these features, you must first install the appropriate client applications on the client computer (described in the *RightFax Installation Guide*). Installing e-mail gateways and associated client software is described in the *RightFax Gateway for Microsoft Exchange Guide* and *RightFax Gateway for Lotus Notes Guide*.

For more information on using the FaxUtil client application and other RightFax fax client options, refer to the *FaxUtil Quick Reference Card* and the FaxUtil online help system. FaxUtil online help is installed with the FaxUtil client application.

Creating a Fax

RightFax provides users several convenient ways to create a new fax. The method you use to create a fax depends on the content of the fax.

Printing documents to the fax printer

You can fax any document directly within the application used to create the document. This can be useful, for example, if you want to write a letter using a word processor and then immediately send it as a fax. When the document is ready to be faxed, print it using the printer designated "RightFax Fax Printer." The RightFax fax printer forwards your printed document to the RightFax server and opens the **Fax Information** dialog box, prompting you for addressing information (see "Using the Fax Information Dialog Box" on page 248). When you complete the required fax information boxes and click **Send,** the document will be sent as a fax to the destination you specify.

This feature is only available if the RightFax Print Driver component was selected during the RightFax client installation (described in the *RightFax Installation Guide*). Also, the application used must be able to print to a network printer.

Using the Send To function

Send To is a function built in to Windows operating systems that quickly copies a file to a selected destination. RightFax adds a **Fax Destination** command to the Send To shortcut menu that forwards the specified file to the RightFax server and opens the **Fax Information** dialog box, prompting you for addressing information (see "Using the Fax Information Dialog Box" on page 248).

To use this function, in Windows Explorer, open the folder that contains the file that you want to fax. Right-click the file to open a shortcut menu. Click **Send To**, and then click **File Destination via RightFax**. The **Fax Information** dialog box opens. Complete the required addressing boxes and specify any notes, additional files, or library documents you want to attach. Click **Send** to generate and send the fax.

The **Fax Destination via RightFax** command is installed when the RightFax Print Driver component is selected during the RightFax client installation (described in the *RightFax Installation Guide*). This feature only works with file formats that the RightFax server can convert to fax format (it will not work with executable files, for example). For a list of file formats that can be converted to fax format, see Appendix B, "File Formats that Convert to Fax Format".

Using the Quick Fax/Broadcast function

The Quick Fax/Broadcast feature creates a fax by combining files, library documents, addressing information, and your own notes from one convenient dialog box. Click the RightFax tray icon to open the tray icon shortcut menu, and then select **Quick Fax/Broadcast**. The **Fax Information** dialog box opens (see "Using the Fax Information Dialog Box" on page 248). Complete the required addressing boxes and specify any notes, files, or library documents you want to attach. Click **Send** to generate and send the fax.

The tray icon is installed when the RightFax Print Driver component is selected during the RightFax client installation (described in the *RightFax Installation Guide*).

Creating a new fax from your client application

RightFax supports several fax client applications in addition to its own FaxUtil client, including RightFax Web Access and SAPoffice for SAP R/3. Each of these client applications let you create a new fax. For information on creating faxes using the FaxUtil client, refer to the FaxUtil online help system installed with FaxUtil. For information on creating faxes using other supported fax clients, refer to the documentation provided by RightFax for your specific client type.

Creating a fax in e-mail

If you have installed one or more RightFax e-mail gateway modules, you can create a fax as an e-mail message and fax it directly from your e-mail mailbox. For information on faxing from your e-mail client application, see Chapter 27, "Using RightFax E-mail Gateways", or refer to the *RightFax Gateway for Microsoft Exchange Guide* or *RightFax Gateway for Lotus Notes Guide*.

Using the Fax Information Dialog Box

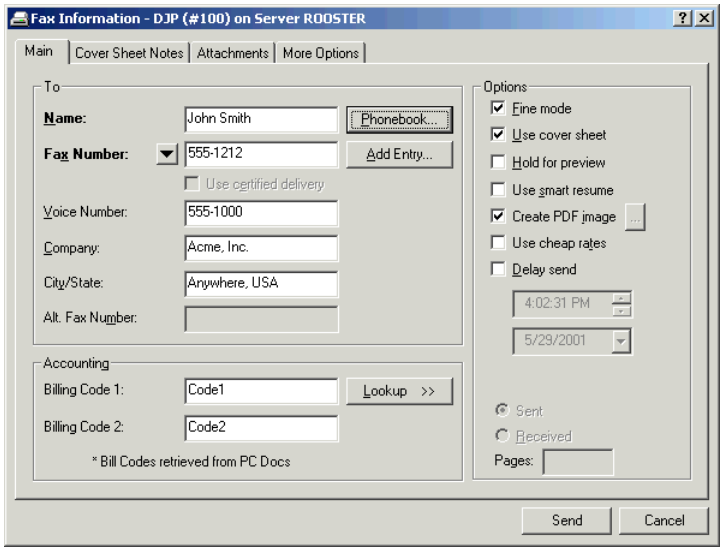
To send a new fax, you must provide the RightFax server with fax addressing information (such as the destination fax number). When you print a document to the fax printer, or use the Send To or Quick Fax/Broadcast functions, or create a new fax in FaxUtil, RightFax opens the **Fax Information** dialog box. This dialog box prompts you for fax addressing information and also lets you attach files, library documents, and your own notes. The **Fax Information** dialog box also provides several options that let you control when and how the document is sent.

Boxes that appear in bold are required. If you send a fax before completing all the required boxes, the fax will remain in your FaxUtil mailbox with the status "Info Not Complete" until the required boxes are completed. In most cases, **To Name** and **Fax Number** are the only required boxes. The RightFax administrator can determine the required entries for users in Enterprise Fax Manager (see "Requiring Cover Sheet Fields" on page 223).

When you have completed all the required and optional entries, click **Send** to send the fax.

The Main tab

Figure 24.1 The Fax Information Dialog Box Main Tab



Under **To**, enter the name, phone number, and other addressing information for the intended fax recipient as you want it to appear on the fax cover sheet. Boxes in bold (such as **Fax Number**) must be completed before the fax can be sent. You must always complete the **Fax Number** box because RightFax uses this when connecting to the destination fax machine.

Note *Hyphens, parentheses, and spaces can be typed in a destination fax number. You can also type the number without any spaces or separator characters.*

You can choose to enter an e-mail address for your intended recipient instead of a fax number. To enter an e-mail address, click the arrow button next to the **Fax Number** box, and select **E-Mail Address** from the shortcut menu. Up to 62 characters can be entered for an e-mail address. Sending to an e-mail address allows several additional options including sending via certified delivery, sending images in portable document format (PDF), and sending file attachments of any type, including file types that cannot be rendered as images (such as WAV files). For more information on sending a fax to an e-mail address, see "Sending Documents to E-mail Addresses" on page 253.

To select a fax destination from your RightFax phonebook, click **Phonebook**. The **Phonebook** dialog box opens, listing the individual and group entries in your RightFax phonebooks. Double-click a phonebook entry to add it to the **Current Recipients** list. You can add as many fax recipients to this list as you want. To add the fax addressing information entered under **To** as a new entry in your RightFax phonebook, click **Add Entry**. For more information on creating and using RightFax phonebooks and phonebook entries, see "Using the RightFax Phonebook" on page 259.

You can also specify up to two billing codes under **Accounting**. These codes can be used by the RightFax administrator to track who the fax was sent to or who sent the fax, depending on the needs of your organization. Click **Lookup** to view and select from a list of billing codes. For more information on using billing codes, see Chapter 14, "Creating Billing Codes".

Fine mode Select this check box to create the fax using 200×200 dots per inch (DPI) resolution. Using this resolution takes longer to generate and send the fax but produces a clearer fax image.

Use cover sheet Adds a cover sheet to the beginning of the fax. RightFax uses the cover sheet file specified by the RightFax administrator as your user or group default. If you have permission to change cover sheets in your RightFax user profile ("The Permissions tab" on page 125), you can select the cover sheet to use (see "The More Options Tab" on page 252).

Hold for preview You can examine the final version of the outgoing fax before you send it. The fax will be held in your FaxUtil mailbox with the status "Held for Preview" and can be viewed there. To send the fax after you have previewed it, click the fax in FaxUtil and select **Release** in the **Fax** menu.

Use smart resume Allows the fax server to intelligently re-send only the portion of a fax that failed to send. For example, if the connection is broken after 40 pages of a 50-page fax, normally all 50 pages have to be re-sent. By enabling Smart-Resume, the server will only re-send the last 10 pages.

Create PDF image When sending your document to an e-mail address, check this option to send a PDF file instead of a TIFF file (the image format used for faxes). This PDF file will be converted to black and white and cannot be edited unless the RightFax SecureDocs module is installed on your RightFax server.

If the RightFax SecureDocs module is installed, you can check this option when sending to either a fax number or an e-mail address. When sending to an e-mail address, the recipient will receive the PDF file as an attachment to the e-mail message. When sending to a fax number, the recipient receives a conventional fax image, but a PDF file is stored with the fax record on the server and can be viewed from your fax client application. With the SecureDocs module, PDF files are formatted in full color and the text of the PDF can be selected and edited (rich PDF). Also, when the RightFax SecureDocs module is installed, you can click the **[...]** button to open a list of additional PDF options. For information on creating rich PDFs and setting PDF options, refer to the *RightFax SecureDocs Module Guide*.

Use cheap rates Tells RightFax to delay sending the fax until a specified time (typically in the late evening when long distance rates are lower). The **Cheap Rates** time can be specified by selecting **Options** in the FaxUtil **Tools** menu, and then clicking the **Other Options** tab.

Delay send Tells RightFax to postpone the transmission of your fax to a later day or time. This lets you take advantage of off-peak phone rates or ensure that the fax recipient is available at the other end. If you select this check box, you must also specify a date and time to queue the fax for transmission. If you specify a time and date that has already passed, the fax will be sent as soon as possible.

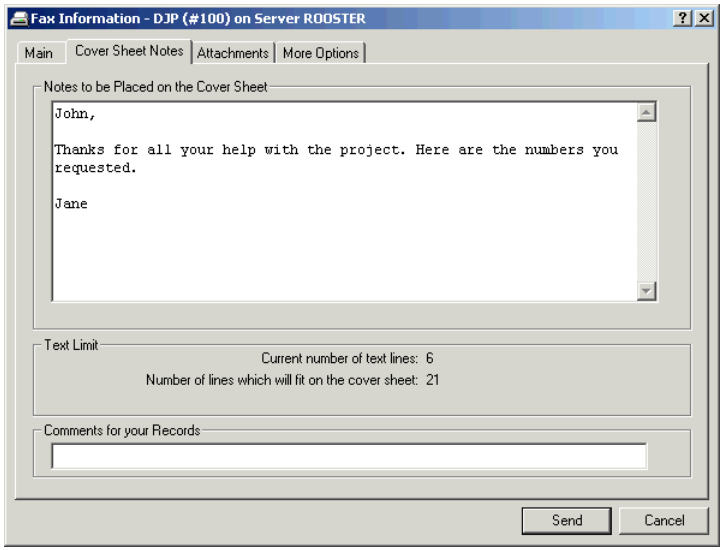
Note *The fax is queued at the time you specify, but will not actually be sent until it reaches the top of the queue. This can cause a delay between the time you specify and the time that the fax is actually sent.*

Thermal fax options When you send or receive a fax from a fax machine that is not connected to the network or to the RightFax server (such as a thermal fax machine), no record of the fax is stored on the RightFax server. In FaxUtil, you can record such a fax transmission on the RightFax server for tracking purposes. The **Sent**, **Received**, and **Pages** options in this dialog box let you specify information about the fax. These options are available when you select **Fax > Record Manual Fax** in FaxUtil. For more information on recording a manual fax, refer to the FaxUtil online help.

The Cover Sheet Notes tab

Click this tab to add notes or comments to the cover sheet.

Figure 24.2 The Fax Information Dialog Box Cover Sheet Notes Tab



In order for your notes to appear, the fax cover sheet used must include one or more <NOTE> cover sheet embedded codes. Each <NOTE> embedded code will display up to 69 characters of the message entered here and a cover sheet can include up to 21 <NOTE> embedded codes. For more information on cover sheets and the <NOTE> cover sheet embedded code, see Chapter 20, "Creating Fax Cover Sheets".

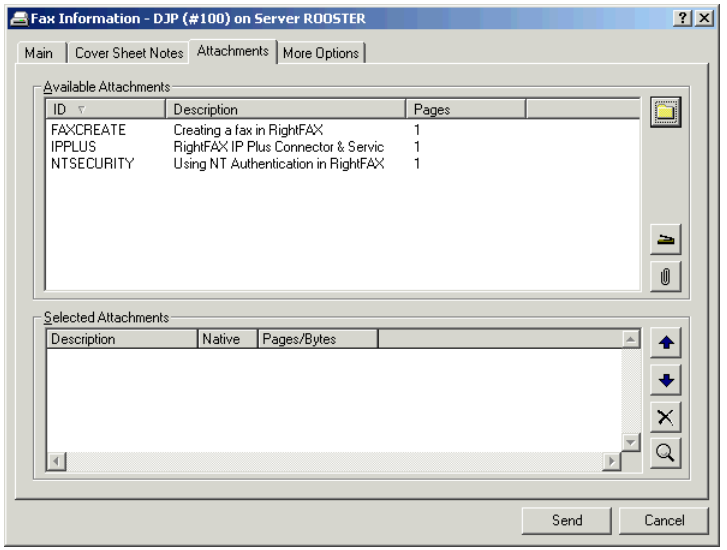
Notes to be Placed on the Cover Sheet Type the notes that you want to appear on your fax cover sheet. You can enter up to 21 lines.

Text Limit This displays the current number of lines in your note and the number of lines remaining. Although it is possible to enter more than 21 lines of text, only 21 can be displayed on the cover sheet. If you exceed 21 lines, the computer will beep and an error message will appear in this box.

Comments for your Records This is a comment for your own use only. This text is not sent to the fax recipient. Text you enter in this box will appear in your FaxUtil mailbox in the **Comments** column.

The Attachments tab

Figure 24.3 The Fax Information Dialog Box Attachments Tab



Available Attachments When sending a document to a fax address, you can attach two types of documents: library documents and documents in their native file format. Library documents are frequently faxed documents that your fax administrator has stored on the fax server. Native documents are electronic document files that you have saved on your local

computer or on a server (such as Microsoft Word DOC files). You can attach any of the native document file types supported by the RightFax native document conversion engine (described in Appendix B, "File Formats that Convert to Fax Format"), and you can attach as many files to a fax as you want.

This box lists all of the library documents stored on your fax server. Double-click a file to move it to the **Selected Attachments** list.

To attach a document file, click the file folder button to search for and select a document file. When you double-click the file name, it will appear in the **Selected Attachments** list.

Selected Attachments This box lists the library documents and native document files you have attached to the fax. Each of your attachments will be added to the fax in the order it is listed here. To move an attachment up or down, select the attachment and click the arrows. To remove an attachment, select it and click the **Delete** button **[X]**. To preview an attachment, double-click it.

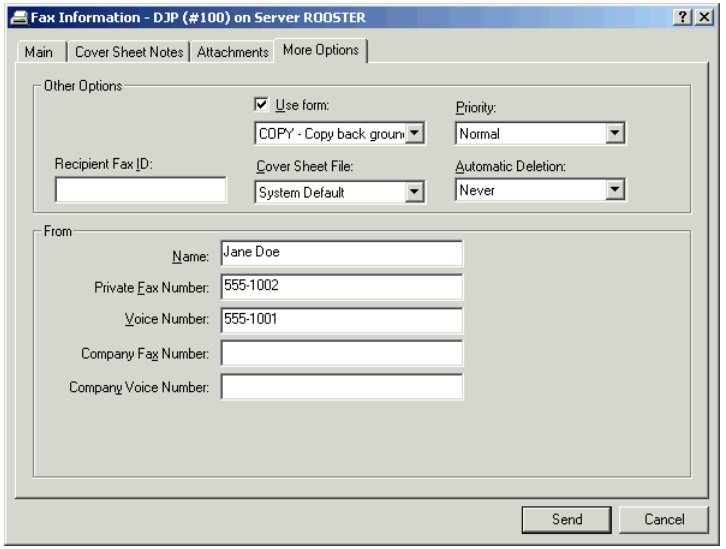
If you are sending to an e-mail address and you have attached a native document file, a check box will appear next to the document in the **Native** column. Check this option to send the file in its native document format as a file attachment to the e-mail message, rather than rendering the document into a fax image. Using this option, you can attach files of any type, including file types that cannot be rendered as images (such as WAV files). For more information, see "Sending Documents to E-mail Addresses" on page 253.

When sending a fax document to an e-mail recipient, this box also specifies one or more native document files to be the body text of your e-mail message. Right-click any of the column headers in this list and select **Advanced Columns** from the pop-up menu. This adds an **Alternate Body** column. Check the box in this column for each native document attachment you want to use as your e-mail body. If you select multiple files, each file will be sent to your recipient, but the recipient will only see the first file that is supported by his e-mail client application.

Note *Because most e-mail client applications support plain ASCII text files, these files can almost always be used as e-mail body text. Many e-mail client applications also support HTML and rich text format (RTF). If the file type you specify is not supported by your recipient's e-mail client application, it will be ignored.*

The More Options Tab

Figure 24.4 The Fax Information Dialog Box More Options Tab



Recipient Fax ID Specify the exact remote fax ID of the intended recipient's fax machine or server. When this feature is enabled, the fax will not be sent unless the remote ID matches the ID specified. You can use the asterisk (*) and question mark (?) wildcards if you are not sure of the exact ID. Asterisks represent

zero or more characters or digits. Question marks represent exactly one digit or character each. This feature is supported for Brooktrout fax boards only.

Use Form Select this check box to add an overlay form to the fax. To specify the form file to use, click the arrow to open a list all available forms. For more information on forms, see Chapter 12, "Creating Overlay Forms".

Cover Sheet File If your user profile includes permission to change fax cover sheets, you can select a cover sheet in this list.

Priority Specify the priority that is assigned to the fax. Select low, normal, or high priority from the list. If you do not have the **Can Use High Priority** permission checked in your RightFax user profile (see "The Permissions tab" on page 125), the "High Priority" option will not appear here.

Automatic Deletion Specify when sent faxes should be automatically deleted from your FaxUtil mailbox.

From Enter your name, fax number, phone number, and other contact information. This information will appear on the fax cover sheet.

Sending Documents to E-mail Addresses

You can use the RightFax client applications to create and send a document to an e-mail address, rather than a fax number. Your recipient will receive your document as one or more file attachments to an e-mail message with the subject "E-Document."

To use this feature, the fax administrator must give the RightFax server access to an SMTP server on the network (see "Configuring the fax server to send documents to e-mail addresses", below). Also, in order to send any document to an e-mail address, a RightFax user must have a valid return e-mail address configured in the **E-mail address** box in the **Identification** tab of the **User Edit** dialog box (described on page 123).

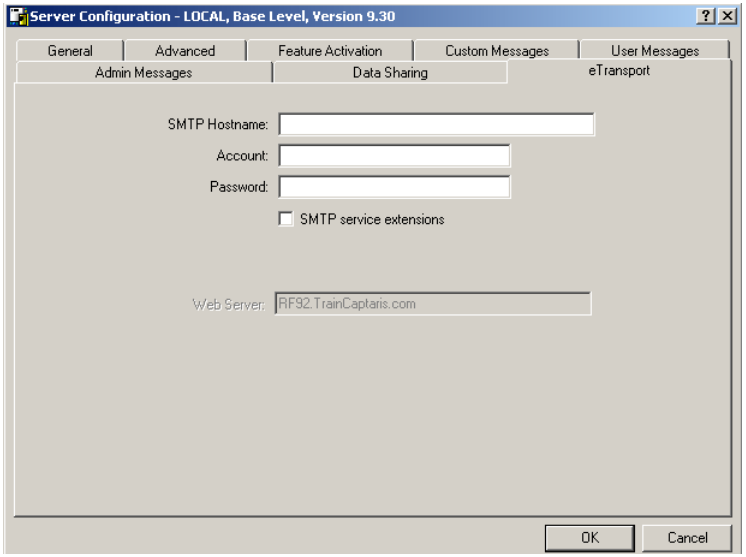
Configuring the fax server to send documents to e-mail addresses

To send documents to e-mail addresses in addition to fax numbers, you must specify an SMTP server on your network that the RightFax server can use to access the Internet.

To specify an SMTP server in RightFax

1. Run Enterprise Fax Manager (see "Starting Enterprise Fax Manager"on page 111).
2. Click the name of your RightFax server in the tree in the left pane. A list of services appears at the bottom of the Enterprise Fax Manager window.
3. Double-click **RightFax Server Module** in the **Service Name** column. The **Server Configuration** dialog box opens. Click the **eTransport** tab.

Figure 24.5 Configuring RightFax to Access an SMTP Server



4. In the **SMTP Hostname** box, enter the name of an SMTP mail server on your network where RightFax will send e-mail messages for transmission.

Note *The Web Server and Web Site options on this dialog box are required only for SecureDocs certified delivery. For information on these options, refer to the RightFax SecureDocs Module Guide.*

5. Click **OK**.

Sending documents to e-mail addresses

Sending a document to an e-mail address allows several additional options including sending via certified delivery, sending images in portable document format (PDF), and sending file attachments of any type, including file types that cannot be rendered as images (such as WAV files).

For information on sending documents to e-mail addresses using other fax client applications such as the RightFax Client for Microsoft Exchange, the RightFax Client for Lotus Notes, or the RightFax Web Client, refer to the documentation provided with your client software.

To specify an e-mail address as your document destination

1. In the **Fax Information** dialog box (described on page 248), click the **Main** tab.
2. Click the arrow button next to the **Fax Number** box and select **E-Mail Address** from the menu.
3. Enter the destination e-mail address. Up to 62 characters can be entered.

Sending documents in PDF format

When sending a document to an e-mail address, you can choose to send a portable document format (PDF) file, rather than a TIFF image file (the file format used for faxes). To send a PDF version of your document, select the **Create PDF image** option in the **Main** tab of the **Fax Information** dialog box (described on page 249).

When you send a PDF to an e-mail address, the recipient receives the PDF as an attachment to the e-mail message. When you send a PDF to a fax number, the recipient receives a fax image, but a PDF file is stored with the fax record on the RightFax server. This PDF file can be viewed from your fax client application.

When you send a document as a PDF, RightFax converts the document to a TIFF image, and then converts the TIFF image to PDF. The PDF image is black and white and can't be edited. To send a PDF that is rendered in color and can be edited, the fax administrator must install the RightFax SecureDocs module (sold separately).

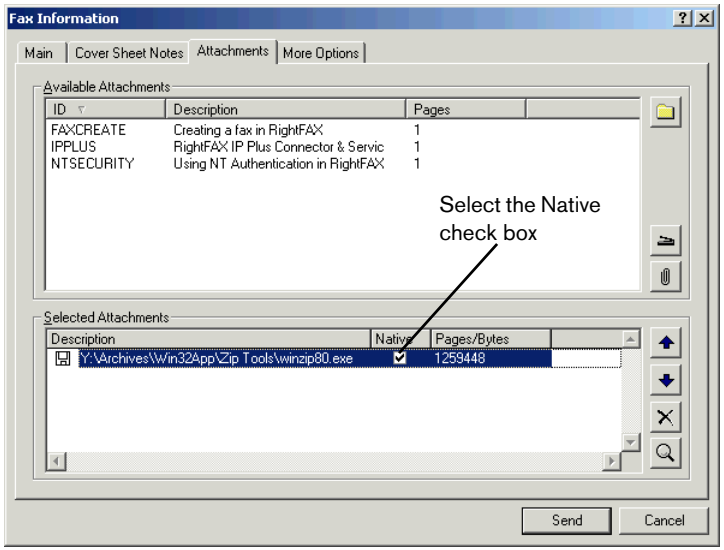
Attaching documents in their native file formats

When you send a document to an e-mail address, you can choose to leave file attachments in their native file format, rather than sending them in TIFF or PDF format. This lets you send file types that normally cannot be rendered into images, such as .exe, .wav, or zipped files.

To leave file attachments in their native format, select the **Native** check box next to the attachment in the **Attachments** tab of the **Fax Information** dialog box. For information on adding file

attachments to your outbound documents, see "The Attachments tab" on page 251, or refer to the online help for your fax client application.

Figure 24.6 Sending a File Attachment in its Native Format



Using a file attachment as the body of your e-mail message

When you send a document to an e-mail address, the window in the recipient's e-mail software where the text of e-mail messages normally appears (the body of the e-mail message) is blank. The document itself is stored with the e-mail message as a file attachment, along with any additional native file attachments you added. However, you can choose to specify one or more document files to use as the body of the e-mail message. These are called alternate body files. Alternate body files can be useful if you want to include a customized introductory message for the attached documents.

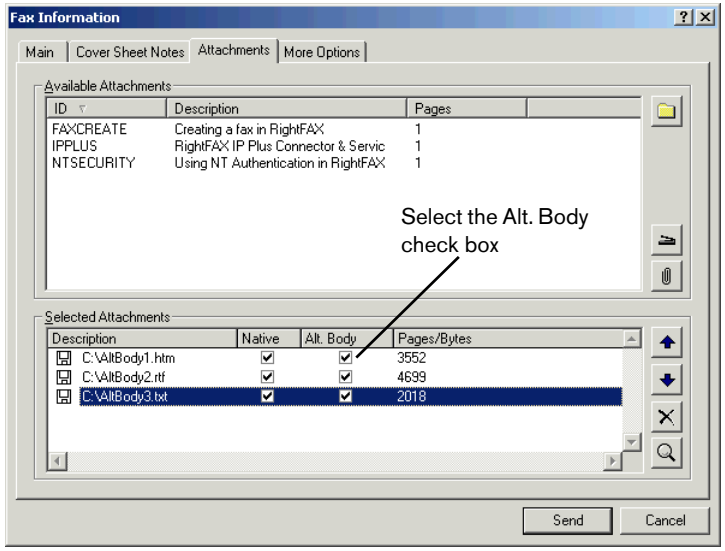
Because most e-mail software supports ASCII text files, these files can usually be used as alternate body files, although many e-mail software packages also support HTML and rich text format (RTF). If you select more than one alternate body file, your recipient's e-mail software will display the first listed file with which it is compatible, ignoring any previous or remaining alternate body file attachments. For this reason, the order in which alternate body files are displayed in the **Selected Attachments** list is important. When attaching multiple alternate body files, it is recommended that you always list the least frequently supported alternate body file types (such as RTF) at the top of the **Selected Attachments** list.

To attach alternate body files

1. In the **Fax Information** dialog box (described on page 248), click the **Attachments** tab.
2. Attach the alternate body files you want to use by clicking the folder button and browsing for the files. Make sure that the alternate body files are listed with least frequently supported alternate body file types (such as RTF) at the top of the list.

3. Right-click any of the column headers in the **Selected Attachments** list and select **Advanced Columns** in the shortcut menu. This adds an **Alt. Body** column to the **Selected Attachments** list.

Figure 24.7 Specifying a File Attachment as an Alternate Body File



4. Select the **Alt. Body** check box for each alternate body file. (When you check this option, the check box in the **Native** column will also be selected.)

Note *You can attach other files to your document in addition to alternate body files. File attachments that do not have the Alt. Body option selected will be sent as document attachments.*

Using Embedded Codes

Note *The embedded codes described in this section are not supported on fax cover sheets. Cover sheets support a separate list of cover sheet codes. For information about fax cover sheets and cover sheet codes, see* Chapter 20, "Creating Fax Cover Sheets" *on* page 215.

Embedded codes are special faxing instructions that you insert into documents created in other applications. You can use embedded codes to include fax cover sheet information, attach library documents, add billing information, and more.

To add an embedded code to a document, type the code you want, along with any required parameters, between angle brackets. For example, an embedded code that provides the destination fax number is written like this:

<TOFAXNUM:555-1212>

The RightFax server removes all embedded codes from a document when it converts the document to fax form, so they don't appear in your final fax. If you type an embedded code incorrectly, it will be ignored by the RightFax server and will be included in your fax. Embedded codes can be written in either upper or lower case. Embedded codes always work the same way regardless of the application used to create the document.

Although you can use any fonts you want in the text of your documents, embedded codes *must always* use a native printer font. This is because when the document is converted to PCL5 format, all other font types are encoded as graphic images. Only native printer fonts are stored in the PCL file that the document is generated from in their original text format. And it is this text in the PCL file that is replaced. If you do not use native printer fonts for your embedded codes, the codes themselves will appear in the instead of being replaced by the information or instruction they represent. All embedded codes are surrounded by angle brackets (<>) which must also use the same native printer font.

Embedded codes can be placed anywhere in the document that you will be faxing and can be used in any document that accepts text characters. Embedded codes cannot line wrap and any embedded code statement that is so long that it wraps to a second line will be ignored.

For a complete list of embedded code keywords, descriptions, and their correct syntax, see Appendix A, "RightFax Embedded Codes".

Monitoring Transmission Success and Failure

Use FaxUtil to monitor the transmission of your faxes.

A transmission is successful if the RightFax server made a connection, transmitted the information across the line, and received information from the target fax machine indicating that the fax information was received.

If a transmission attempt is not successful, the code "ER" (error-retry) and a brief error message appears in the **Status** column in the FaxUtil mailbox. After a set number of attempts (five by default), RightFax will stop trying, consider the transmission failed, and display the code "ED" (error-dropped) in the status column of FaxUtil. A message appears stating that the transmission failed. For a complete list and description of RightFax error messages, see Appendix C, "Error and Status Messages".

Fax Approval

RightFax can be configured to hold outbound faxes for approval by an administrator before sending. Only RightFax administrators, group administrators, and group alternate administrators can view and approve these faxes.

To require fax approval for a user

1. Edit the user profile in Enterprise Fax Manager (see "Editing user properties" on page 123).
2. On the **Permissions** tab, select the **Must Have Faxes Approved** check box.

To view a list of all faxes waiting for approval

1. Run FaxUtil.
2. On the **List** menu, click **Administrative Mode** to view the contents of all fax mailboxes for which you are an administrator.
3. On the **List** menu, click **Needing Approval** to display faxes waiting for approval.
4. To approve or disapprove a fax, click the fax and select **Approve Fax** or **Disapprove Fax** in the **File** menu. You can add a note (up to 450 characters) that will be stored with the date and your user ID in the fax history. You can also delete the fax rather than approve or disapprove it. If the fax is approved, it is immediately scheduled to send. If the fax is not approved, it is assigned a status of "ED: Approval Denied" in the original sender's FaxUtil mailbox.

Controlling Deleted Faxes

By default, RightFax will retain the image files of faxes that have been deleted from FaxUtil until all corresponding database records have been removed. To configure RightFax to immediately delete fax images:

1. Open the Windows Registry on the RightFax server.
2. Browse to the subkey of HKLM\Software\RightFax\FaxServer.
3. Create a new REG_DWORD entry of **DeleteImagesOnPurge.**
4. Edit this entry to contain a value of **0**.

5. Restart the RightFax services.

■ ■ ■

Chapter 25

Creating Phonebooks and Broadcasting Faxes

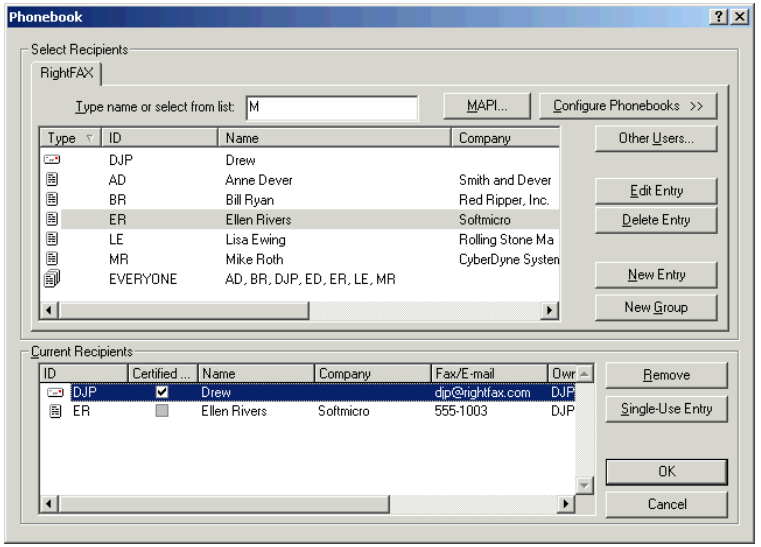
You can store information about your fax recipients in phonebooks. RightFax phonebooks store fax addressing information (such as name, fax number, and phone number) in a single location so you can easily apply all fax destination information when addressing an outgoing fax. You can also create group phonebook entries that contain fax addressing information for multiple fax recipients. RightFax users can choose to use the phonebook built in to the RightFax FaxUtil client or can link to existing ODBC, LDAP, or MAPI contact lists.

Using phonebooks or other databases containing contact information, RightFax lets you send fax broadcasts. Fax broadcasting sends a single fax to multiple recipients without addressing each fax individually.

Using the RightFax Phonebook

The RightFax phonebook is a fax recipient database customized for each RightFax user. Because each user's phonebook is unique, all phonebook functions are managed from within the FaxUtil client application. To open your RightFax phonebook, run FaxUtil. Select **Tools > Phonebook**, or click the **Phonebook** button in the toolbar.

Figure 25.1 The RightFax Phonebook



For information on creating and managing individual and group RightFax phonebook entries, refer to the FaxUtil online help. For information on using phonebook entries to address outgoing faxes, see "Using the Fax Information Dialog Box" on page 248.

Importing Entries Into the RightFax Phonebook

You can import entries into your personal phonebook from a specially formatted text file.

Creating a file to import

The file used to import phonebook entries is typically generated by an existing database of contact information. This must be an ASCII text file with each phonebook entry separated by a line break. Each entry is made up of one or more phonebook fields. The following table lists each of the valid phonebook entry fields in the order the fields appear in the file.

Table 25a Phonebook Fields

Field name	Maximum length	Description
ID	17	A unique ID used only to reference the phonebook entry. It never appears on the fax
Name	59	The recipient's name as it will appear on the fax cover sheet
Company	59	The recipient's company name as it will appear on the fax cover sheet
Address	59	The recipient's address as it will appear on the fax cover sheet
CityState	59	The recipient's city and state as they will appear on the fax cover sheet

Table 25a Phonebook Fields (Continued)

Field name	Maximum length	Description
Fax1	31	The recipient's primary fax number. This is used when dialing the fax destination and may appear on the fax cover sheet
Fax2	31	The recipient's alternate fax number. This is used when dialing the fax destination and may appear on the fax cover sheet
Voice1	31	The recipient's primary voice number as it will appear on the fax cover sheet
Voice2	31	The recipient's alternate voice number as it will appear on the fax cover sheet
BillCode1	17	A code associated with the recipient used for billing or tracking purposes. It never appears on the fax
BillCode2	17	An additional code associated with the recipient used for billing or tracking purposes. It never appears on the fax
Notes	128	Any additional information about the recipient. This will not appear on the fax and is for your information only

This must be a comma-delimited text file with each data field bounded by double-quotes and a carriage-return between entries.

The first line in the file is used to specify what data fields are included for each entry. This line uses the same format as the individual phonebook entries, but specifies the data fields being imported using the field names from the table above. The phonebook entries that follow must include all the same data fields in the same order that they are listed in the first line.

If a data field in any of the entries is left empty or contains no data, the import will fail. Any unpopulated fields that you want to include in this file must be indicated using a single space bounded by double-quotes.

Sample phonebook import file

The following is a short example of a file that can be can be imported into your RightFax phonebook. Some unpopulated data fields are illustrated in the last entry.

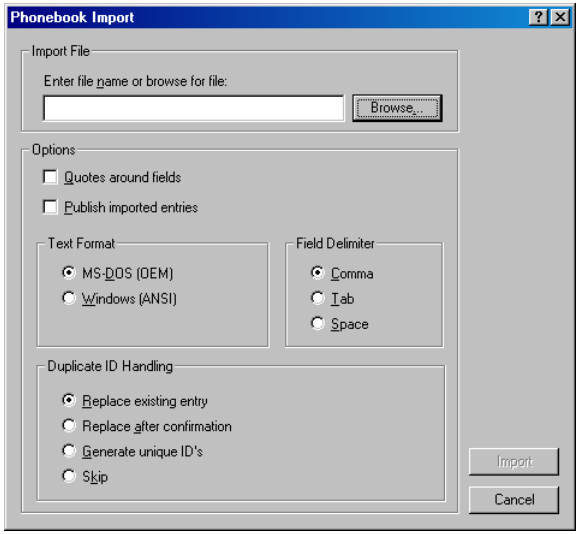
“ID”,”Name”,”Fax1”,”Company”,”CityState”
“Bob”,”Bob Jones”,”444-3333”,”Acme”,”Tucson AZ”
“Jane”,”Jane Doe”,”555-1212”,” ”,” ”

For information on outputting a properly formatted text file from your contact database, refer to the documentation for your contact database management application.

Using FaxUtil to import the phonebook entries

After you have created the text file to import from, run FaxUtil, and select **Phonebook Import** from the **Tools** menu. The **Phonebook Import** dialog box opens. Complete each box according to the format of the file you are importing. When all boxes are complete, click **Import** to import the entries.

Figure 25.2 The Phonebook Import Dialog Box



Import File Enter the path and file name of the text file to import. Click **Browse** to search for and select the file.

Quotes Around Fields Fields in the text file you import can be surrounded by, but do not require, quotes. If quotes *are* used, they must be used on *every* field in the file. You cannot mix fields with quotes and fields without quotes. Select this check box only if your data fields are surrounded by quotes.

Publish Imported Entries Select this check box to make each new imported entry published. Published entries can be accessed by other RightFax users; unpublished entries can be accessed only by you and the RightFax administrator.

Text Format Select the text mode of the file to import. If your text application doesn't specify whether it's using OEM or ANSI text, select OEM. If accented or other special characters do not import properly, re-import the file and select ANSI.

Field Delimiter Specify which type of character, a comma, tab, or space, is used to separate the individual fields in each phonebook entry in the file.

Duplicate ID Handling You have the following options for handling imported entries that contain IDs that already exist in your phonebook:

- **Replace Existing Entry** replaces any existing entry in the phonebook with the imported entry containing the duplicate ID.
- **Replace After Confirmation** replaces existing entries only if you agree to a confirmation prompt.
- **Generate Unique IDs** adds a number to the end of duplicated IDs in order to make the new ID unique.
- **Skip** ignores any entry in the import file with a duplicate ID.

Using MAPI Phonebooks

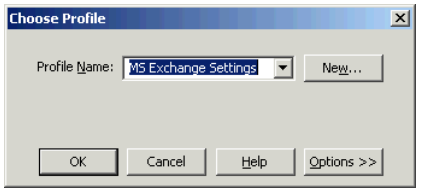
RightFax also integrates with MAPI-compliant contact lists such as Microsoft Exchange address lists and Outlook contact lists. In order to access MAPI contact lists, each client workstation must have MAPI installed.

MAPI address books and contact list profiles are created by Exchange, Outlook, and other MAPI-compliant applications. Because these profiles conform to a universal standard, you do not need to configure the MAPI-to-RightFax connection.

To select a recipient from a MAPI source

1. In the **Phonebook** dialog box, click **MAPI**. The **Choose Profile** dialog box opens.

   Figure 25.3 The Choose Profile Dialog Box

2. Select the MAPI profile name in the **Profile Name** box, and then click **OK**. The **Enter Password** dialog box opens.
3. Enter your network user name, domain, and password, and then click **OK**. This will open the MAPI contact list.
4. Double-click each contact entry to add it to the **Fax Destinations** list. When you have all the contacts you want, click **OK**. The MAPI contacts will appear in the **Phonebook** dialog box in the **Current Recipients** list.

Using ODBC Phonebooks

RightFax can connect to an existing ODBC database in order to use your organization's existing contact database information for addressing faxes. This is especially useful for sending fax broadcasts to large numbers of recipients.

There are two parts to configuring ODBC connectivity: general ODBC configuration and RightFax-specific ODBC configuration. Each workstation must be configured individually for both types of ODBC information.

Configuring ODBC drivers on the client workstation

Because every database is different, this document cannot provide specific instructions for configuring the ODBC drivers on your workstations. Note the following guidelines:

- Verify that you have the 32-bit version of ODBC installed on your system by opening Windows Control Panel and running the ODBC program to display the **ODBC Data Source Administrator**.
- Note the user ID and password that is used to log on to the database or database server. You will use this ID and password in the RightFax ODBC configuration.
- After you have configured the drivers on your workstation, create a data source under a **User DSN** or **System DSN** in the **ODBC Data Source Administrator**.

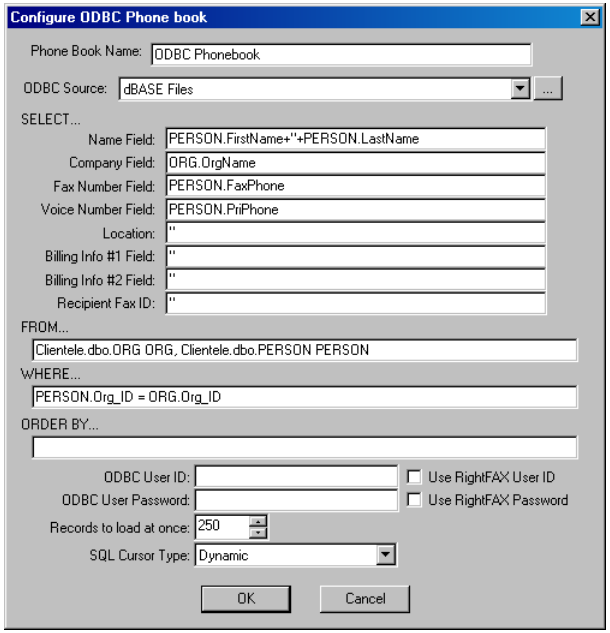
Configuring RightFax for ODBC connectivity

After the workstation has had ODBC drivers correctly installed, you must map the ODBC fax contact information to the corresponding fields in RightFax.

To configure ODBC in RightFax

1. Click the RightFax tray icon in the taskbar and select **ODBC Configuration**.
2. Click **Add** next to **ODBC Phonebooks** to create a new ODBC source. The **Configure ODBC Phonebook** dialog box opens.

Figure 25.4 The Configure ODBC Phonebook Dialog Box



3. In the **Phonebook Name** box, enter a descriptive name for this contact database.
4. In the **ODBC Source** box, enter the name under which this database appears in the **User DSN** tab of the ODBC program in Control Panel.

5. Under **Select,** use simple SQL queries to relate ODBC database fields to each of the listed RightFax phonebook fields. Enter two single-quotes ('') in any field you want to leave blank. If you are familiar with SQL code, you can create this information quickly and enter it in the **Select** boxes. If you are not familiar with SQL code, you should use a tool such as Microsoft Query to generate the SQL code for you, and then cut and paste the codes into the **Select** boxes.

Note *SQL queries also let you combine multiple ODBC source fields in a single RightFax field. This is useful, for example, if your database contains separate fields for first, middle and last names. Because RightFax has only one "Name" field, each of these source fields should be combined into the single RightFax field.*

6. In the **From** and **Where** boxes, enter the SQL information specified by the query results.
7. To presort the data, enter the necessary SQL data in the **Order** box, however this should not be necessary because RightFax can sort phonebook entries by column after it retrieves the data.
8. Specify the **ODBC User ID** and **ODBC User Password** required to access the database information. If the ID and password match those used to log in to FaxUtil, you can select those check boxes instead.
9. If you have a large database, limit the number of records loaded at one time in the **Records to Load at Once** box.

Using ODBC phonebooks to send faxes

After you have configured your ODBC information, you can access these contact records as phonebook entries when addressing faxes via the **Fax Information** dialog box (see "Using the Fax Information Dialog Box" on page 248).

Click **Phonebook** and select the **ODBC Phonebook** tab, and a list of contacts opens. If you limited the number of records displayed at one time, you will see only that number of records. To view the previous or next increment of records click the arrows on the far right side of the table. Click one or more records and click **OK** to address the fax. The new fax will be sent to each of the specified recipients.

LDAP Phonebooks

RightFax allows users to connect to an existing LDAP database in order to use your organization's existing contact database information for addressing faxes. This is especially useful for sending fax broadcasts to large numbers of recipients. LDAP phonebooks are only accessible from Windows 2000 and Windows XP workstations.

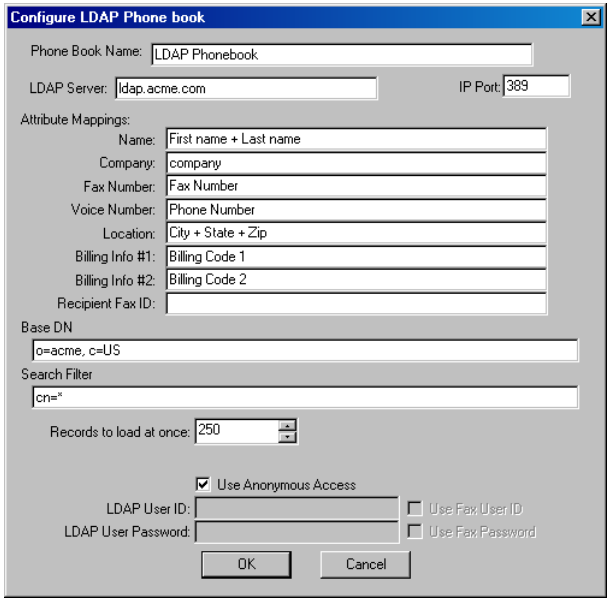
Configuring RightFax for LDAP connectivity

In order for RightFax to work with your LDAP database, you must map the LDAP fax contact information to the corresponding fields in RightFax.

To configure LDAP in RightFax

1. Click the RightFax tray icon in the taskbar and select **LDAP Configuration**.
2. Click **Add** to create a new LDAP source. The **Configure LDAP Phonebook** dialog box opens.

Figure 25.5 The Configure LDAP Phonebook Dialog Box



3. In the **Phonebook Name** box, enter a descriptive name for this contact database.
4. In the **LDAP Server** box, enter the name of the LDAP server. Specify the server's IP port in the **IP Port** box.
5. Under **Attribute Mappings**, map the LDAP fields that correspond to the listed RightFax fields. In addition, you can filter the number and type of entries returned to RightFax.
6. If you have a large database, limit the number of records loaded at one time in the **Records to Load at Once** box.

Using LDAP phonebooks to send faxes

After you have configured your LDAP information, you can access these contact records as phonebook entries when addressing faxes via the **Fax Information** dialog box (see "Using the Fax Information Dialog Box" on page 248).

Click **Phonebook** and select the LDAP database, and a list of contacts opens. If you limited the number of records displayed at one time, you will see only that number of records. To view the previous or next increment of records click the arrows on the far right side of the table. Click one or more records and click **OK** to address the fax. The new fax will be sent to each of the specified recipients.

Fax Broadcasting

You can send one fax to hundreds or thousands of recipients at once. This is called sending a "fax broadcast" or "fax broadcasting."

The RightFax server provides three methods for sending a fax broadcast.

- Fax broadcasting from phonebooks.
- Fax broadcasting from a mail merge.
- Fax broadcasting from a database.

The method you choose for your fax broadcast should be determined by the nature of the fax broadcast as well as the source of the fax contact information.

Note *When broadcasting the same document to a large number of people, it is generally better to store the fax as a library document. As a library document, the fax is already stored in TIFF G3 format and will not need to be converted again for faxing. If a fax is not saved as a library document and is broadcast to 500 recipients, the WorkServers will have to perform 500 separate PCL-to-TIFF G3 conversions.*

Fax broadcasting from phonebooks

The easiest way to send a fax broadcast is to select **Quick Fax/Broadcast** from the RightFax tray icon, and then, in the **Fax Information** dialog box, click **Phonebook** to open your RightFax, ODBC, LDAP, or MAPI phonebook (as described earlier in this chapter). From each of these phonebooks you can specify multiple recipients for your fax. The biggest advantage of using phonebooks for fax broadcasts is convenience. After a phonebook is created, faxing to one or more contacts in the phonebook is as easy as clicking the desired contacts in the list.

Fax broadcasting from your RightFax or MAPI phonebook is most useful for small fax broadcasts to your personal contacts. This is because these phonebooks are typically used only for private contact management and exist separately from your organization's primary contact data source. Fax broadcasting from your ODBC or LDAP phonebook is better geared towards large fax broadcasts because these phonebooks can be dynamically linked to your organization's primary contact data source.

Using your phonebooks for fax broadcasts has some disadvantages. First, all recipients receive the same fax body pages. Although each cover page has the correct contact information, the body of the fax cannot be not customized to each recipient. Also, the fax broadcast must be specifically initiated by someone and the contacts to fax to specified manually.

Fax broadcasting from a mail merge

You can also send a fax broadcast using a mail merge from applications such as Microsoft Word or Microsoft Access. The benefit of a mail merge is that each individual fax can be personalized or customized to fit the recipient. The main drawback, however, is that each individual fax page must be converted from its native format to the TIFF-G3 format, which can slow down the rate at which faxes are sent and delay other fax server processes, especially during very large fax broadcasts.

To send a fax broadcast using mail merge, you must create a document in a native application that supports mail merges. This document must contain all necessary fax addressing information in the form of embedded codes (described in Appendix A, "RightFax Embedded Codes"). Each fax addressing embedded code then uses the mail merge variables instead of specific fax addressing information.

After the document is created, each mail merged version of the document must be printed as a separate print job to the RightFax print queue. Depending on the application you use to generate the mail merge document, you must create some type of macro that instructs the application to send each mail merge document as a separate print job.

In addition, you must print mail merge fax broadcasts to a RightFax printer that does not automatically prompt you for fax addressing information. To create a RightFax printer that does not automatically open the **Fax Information** dialog box, click the RightFax tray icon and select **Configuration**. Click **Create Fax Driver** and select **Create PCL-5 Fax Driver**. Enter a name for the printer and specify the fax server to which jobs should be sent. This new printer will be listed under **Fax Printers** in the **Configure Fax Printers** dialog box. Finally, move the new printer to the **Available Printers** list. This printer will still output to the fax server but will not prompt you for fax addressing information.

The following is an example of a mail merge document created in Microsoft Word (merge fields are shown as they would appear if the **Field Codes** option in the **View** menu in Word is enabled).

Figure 25.6 Sample Word Mail Merge Document

```
<FORMTYPE:letterhead><TONAME:{mergefield Name}>
<TOFAXNUM:{mergefield FaxNumber}>
<TOCOMPANY:{mergefield Company}>
{mergefield Name}
{mergefield Company}
{mergefield Address}
Dear {mergefield Name}
Thank you for remitting payment.
Sincerely,
Jane Doe, President
```

If this letter is merged with a list of ten names, Word will create a single document with ten copies of the letter, each separated by a section divider. Normally you could just print the new document and all ten sections would be output as a single print job to a network print queue. However, if you were to print the document this way to the RightFax fax printer, you would get one fax with ten pages and it would be addressed to the person referenced by the last set of embedded fax codes. For Word to output ten separate print jobs, you can use this Word 97 macro.

Figure 25.7 Word 97 Macro for Outputting Ten Separate Print Jobs

```
Public Sub MAIN()
       Dim TotalSec, i, F$
       WordBasic.EndOfDocument
       TotalSec = WordBasic.SelInfo(2) - 1
       For i = 1 To TotalSec
              F$ = "S" + Str(i)
              WordBasic.FilePrint Type:=0,NumCopies:=1,
              Range:=3, From:=F$, To:=F$
       Next i
End Sub
```

Note *If you use a different word processor or a different version of Word, you will have to modify this macro to meet your application's specific requirements.*

This macro first counts the number of letters to print by jumping to the bottom and obtaining the current section number (subtracting one because there is always an extra section break inserted during the **Merge To New Document** operation). Next, the macro starts a loop, executing a print range from 1 through the total number of sections. Because the print range is prefixed with "S," the print command prints all of the specified section, no matter how many pages are in each section.

In the previous example, the Word document itself is broadcast. In some cases, however, you can want to send a RightFax library document to a group of people using a mail merge. This Word document could be used to fax broadcast only the library document "Promo1."

Figure 25.8 Sample Fax Broadcast Document in Word

```
<LIBDOC:Promo1><TONAME:{mergefield Name}>
<TOFAXNUM:{mergefield FaxNumber}>
<TOCOMPANY:{mergefield Company}>
<NOTE: This is the first cover sheet notes line>
<NOTE: This is the second.>
```

Then, using the Word print macro (see "Figure 25.7: Word 97 Macro for Outputting Ten Separate Print Jobs" on page 267), only the library document "Promo1" will be broadcast.

Fax broadcasting from a database

Fax broadcasting from a database uses the scripting power of your contact database with the faxing capabilities of RightFax. There are a virtually unlimited number of possible variations on this method.

The main benefit of fax broadcasting from a database is that the fax broadcast can be partially or completely automated depending on the database you use. You also have the added flexibility of sending the same document to all recipients, such as a library document, or customizing each document for each recipient. The drawback to this fax broadcasting method is that it can be highly complex and may require substantial programming in your database's scripting language.

The following figure shows how fax broadcasting can work with databases. This example is intended only to provide database administrators with the fundamental concept of database fax broadcasting. You must apply these concepts when developing a customized database fax broadcast in your own environment.

In the following example, FoxPro is used to send the library document "Promo1" to all contacts in Arizona and California. The database is named "MyList" and includes four fields: "name," "faxnum," "state," and "company." The RightFax fax printer is already linked or captured to LPT1.

Figure 25.9 Sample FoxPro Database Fax Broadcast

```
set talk off
Select * from MYLIST;
       where STATE=="AZ" or STATE=="CA"
       to table TEMP1
set printer to LPT1
set printer on
? "DUMMY TEXT TO FLUSH ANY DATA IN LPT BUFFER"
set printer off
set printer to
if (!used("TEMP1"))
       select 0
       use TEMP1
endif
select TEMP1
SCAN ALL
       set printer to LPT1
       set printer on
       ?? "<libdoc:PROMO1>"
       ?? "<toname:"+temp1.name+">"
       ?? "<tofaxnum:"+temp1.faxnum+">"
       ?? "<tocompany:"+temp1.company+">"
       ?? "<autodelete>"
       set printer off
       set printer to
ENDSCAN
```

■ ■ ■

Chapter 26

Using the Connector for Oracle CRM

The RightFax Connector for Oracle CRM connects Oracle customer relationship management (CRM) applications with the RightFax server, so that users can fax documents directly from Oracle CRM applications.

To use the Connector for Oracle CRM, you must install the RightFax XML interface and the RightFax API for Java on the RightFax server, and install the CLASS files from the file RFJavaInt.zip to the Oracle server. The RightFax XML interface and the RightFax API for Java are both described in the *RightFax Integration Module Guide*.

Setting Defaults for Sent Faxes

For sent faxes, you can set defaults for:

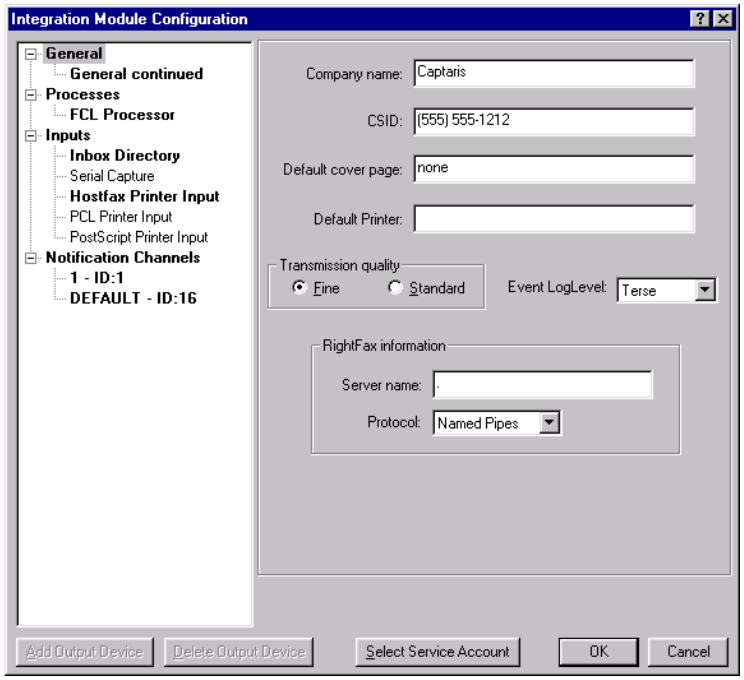
- Whether a cover sheet will accompany each fax
- What information will appear on the cover sheet
- What printer to use
- The fax image quality

To set defaults

1. On the RightFax server, on the **Start** menu, select **Programs > Enterprise Fax Manager** to open Enterprise Fax Manager.
2. In the **Fax Servers** list, click the name of the server on which the connector is running.
3. In the **Service Name** list, double-click **RightFax Integration Module**. The **Integration Module Configuration** window opens.

4. In the left pane, click the **General** folder. The **General** settings appear in the right pane.

Figure 26.1 General Settings



5. In the **Company name** box, enter the default name for the enterprise. This name will appear on the fax cover sheet, if one is used.
6. In the **CSID** box, enter the caller subscriber ID number for the enterprise. This number will appear on the fax cover sheet, if one is used.
7. To specify a default cover sheet for faxes, in the **Default cover page** box, enter the path and file name for the default cover sheet, if one is used. Enter **none** for no cover sheet. For more information on cover sheets, see Chapter 20, "Creating Fax Cover Sheets".
8. In the **Default Printer** box, enter a default printer name. The printer must be defined in Enterprise Fax Manager. For information on creating printers in Enterprise Fax Manager, see Chapter 13, "Connecting Printers and Scanners".
9. In the **Transmission quality** box, specify the default resolution for fax images. Fine quality is 200 x 200 dots per inch. Standard quality is 200 x 100 dots per inch.
10. To determine the level of reporting to the Windows event log, in the **Event Log Level** list, select one of the following:
    - **None** records no errors.
    - **Terse** records critical errors only.
    - **Normal** records the most significant events only and is the correct setting for normal use.
    - **Verbose** records all significant events and is the most useful for tracking and resolving problems.

Warning *If you leave this value set to* ***Verbose*** *for long periods of time, the event log can become full, which can prevent new events from being logged.*

11. In the **Server name** box, the name of the RightFax server appears.
12. In the **Protocol** list, the communication protocol between the RightFax server and Oracle appears.

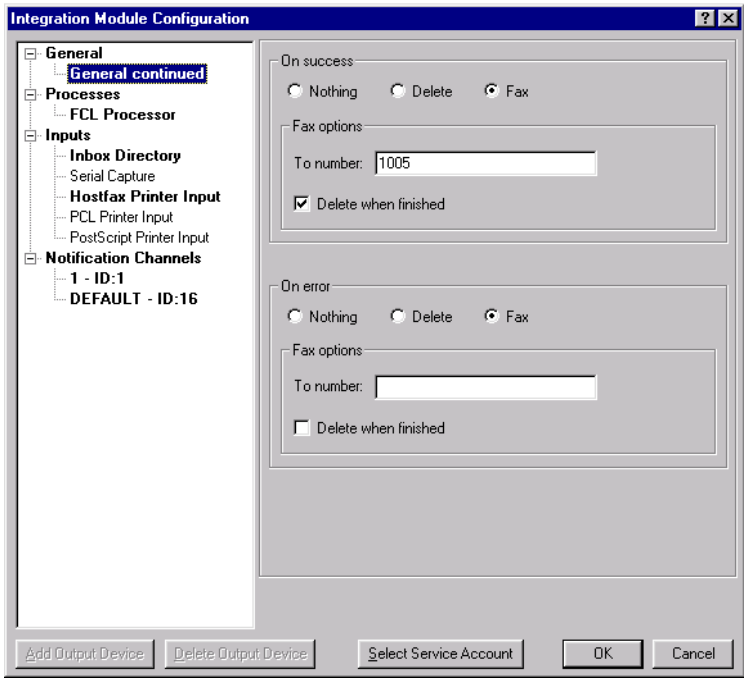
Managing Faxes on the RightFax Server

You can save space on the RightFax server by deleting the fax images when they are sent. Copies of faxes can be sent to other users when successfully or unsuccessfully sent.

1. On the **Start** menu, select **Programs > Enterprise Fax Manager**. The **Enterprise Fax Manager** window opens.
2. In the **Fax Servers** list, click the server.

3. In the **Service Name** list, double-click **RightFax Integration Module**. The **Integration Module Configuration** window opens.
4. In the left pane, click the **General** folder, and then click the **General continued** folder.

Figure 26.2 The General Continued Settings



5. Under **On success**, specify the action for a fax that is successfully sent from the RightFax server.
   - To take no action, click **Nothing**.
   - To delete the fax from the sender's fax mailbox, click **Delete**.
   - To send a copy of the fax to another user's fax mailbox (such as a system administrator), click **Fax**.

   If you select **Fax**:
   - In the **To number** box, enter the fax number where the fax should be sent.
   - To delete the fax image from the sender's fax mailbox, select the check box **Delete when finished**.
6. Under **On error**, specify the action for a fax that is not successfully sent.
   - To take no action, click **Nothing**.
   - To delete the fax, click **Delete**.
   - To send a copy of the fax to another user's fax mailbox (such as a system administrator), click **Fax**.
7. If you chose **Fax**:
   - In the **To number** box, enter the fax number where the fax should be sent.
   - To delete the fax image from the sender's fax mailbox, select the check box **Delete when finished**.
8. Click **OK**.

Changing the Network Service Account

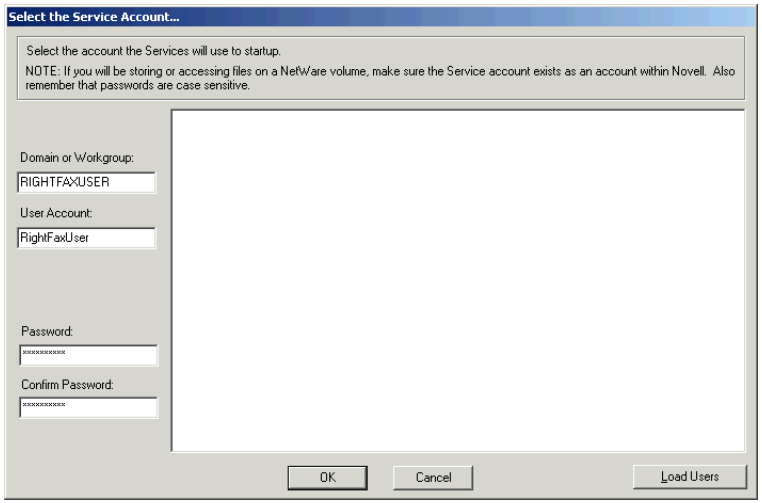
The Integration Module service logs on to the network using a Windows user account that you specify. This user account must have access to the network resources required by the services that are managed by the RightFax Integration Module for the connector. This account is initially selected during the RightFax server installation.

To change the service account

1. On the **Start** menu, select **Programs > Enterprise Fax Manager**. The **Enterprise Fax Manager** window opens.
2. In the **Fax Servers** list, click the server where the Connector for Oracle CRM is installed.

3. In the **Service Name** list, double-click **RightFax Integration Module**. The **Integration Module Configuration** window opens.
4. Click **Select Service Account**, and the **Select Service Account** dialog box opens.

Figure 26.3 The Select the Service Account Dialog Box



5. Enter the new service account in the **Domain or Workgroup** and **User Account** boxes. You can also click **Load Users** to open a list of all user accounts on the network, and then select one.
6. Enter the case-sensitive password for the user account in the **Password** and **Confirm Password** boxes.
7. Click **OK** to apply the new service account.

Faxing HTML Documents from an Oracle CRM Application

Users can send HTML documents from an Oracle CRM application. When faxed, an HTML document appears in the fax image as if it were printed from a Web browser.

Oracle sends the document to the RightFax connector in a single zipped file, which can consist of one or more HTML files, document types such as Microsoft® Word, and supporting content such as graphics.

To prepare for faxing, the RightFax Connector for Oracle CRM extracts the compressed files and documents and converts them to

fax format. The following table describes how zipped HTML files are converted and sent as faxes.

Table 26a Zip File Handling

If the Zip file contains	The RightFax connector will
• One HTML file • Image files (such as .jpg or .gif)	Render the HTML file as a single fax image. The HTML document references the image files. Thus, the images appear in the fax.
• More than one HTML file • Other file types, such as Microsoft Word documents • Image files (such as .jpg or .gif)	Render each document as a separate fax image. The image files will be ignored. That is, the RightFax software assumes that the image files are referenced as part of the HTML file, so the image files are not treated as separate documents to be faxed.
• No HTML files • Other file types, such as Microsoft Word documents • Image files (such as .jpg or .gif)	Render each file, including the image files, as separate fax images. The image files are treated as separate documents because no HTML file exists to reference the image files.

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Chapter 27

Using RightFax E-mail Gateways

The RightFax server includes e-mail gateways for Novell GroupWise and SMTP/POP3. Advanced gateways for Microsoft Exchange and Lotus Notes are available as separate, optional modules.

Each RightFax e-mail gateway acts as a communication link between the RightFax server and your e-mail server(s). This lets you use your e-mail client software as a fax client system as well.

Important *UTF-8 encoding (unicode) is required for the Euro symbol and some other special characters to appear properly in RightFax documents created in e-mail clients. To support documents with these characters, your e-mail client must be configured for UTF-8 encoding. Refer to the documentation for your e-mail client for information on enabling UTF-8 encoding.*

E-mail messages addressed to the RightFax e-mail gateway are picked up by the RightFax server, which converts them into faxes and transmits them. Incoming faxes can be routed to an e-mail mailbox by specifying each RightFax user's mailbox information in Enterprise Fax Manager. The gateway can also provide notification of fax events via e-mail.

Important *Required information for outbound faxes (described in "Requiring Cover Sheet Fields" on page 223) does not apply to faxes sent via the e-mail gateways. If you have configured RightFax to require that the To Name field be completed before a fax can be sent, faxes may still be transmitted via the e-mail gateways without a recipient name specified.*

Installing the E-mail Gateway Software

The Novell GroupWise and SMTP/POP3 e-mail gateways are installed when you run the RightFax server installation. However, these mail servers require some configuration to work with the gateway software. After the mail server has been properly configured, you must add and configure the e-mail gateway on the RightFax server (described on page 278).

Important *If you will be storing or accessing mail files on a Novell NetWare volume, make sure that the account the RightFax e-mail gateway service exists as a user in Novell. By default, the account used by the RightFax e-mail gateway service is the same account used by the RightFax WorkServer modules (defined in the RightFax WorkServer configuration in Enterprise Fax Manager).*

Configuring GroupWise gateway installations

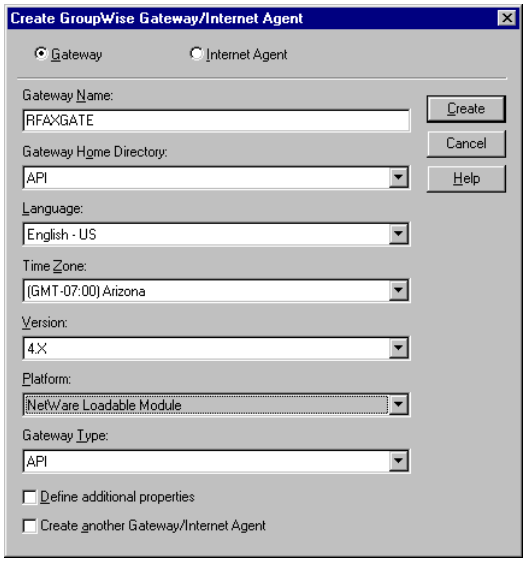
For GroupWise installations, you must install the GroupWise API gateway (available separately from Novell) and the Message Transfer Agent before installing the RightFax e-mail gateway. If you are not running an NLM version of GroupWise, the Message Transfer Agent may be referred to as the GroupWise Message Server.

Warning *RightFax is designed for use with the GroupWise API gateway. Do not use the GroupWise SMTP gateway.*

After the GroupWise API gateway software is installed, follow these steps to create and configure the API gateway within your GroupWise domain:

1. Make sure that the GroupWise API gateway NLM is running.
2. Run the GroupWise Admin program and select your GroupWise domain.
3. Click **Create**, then select **GroupWise Gateway**. The gateway configuration dialog box opens.

Figure 27.1 The GroupWise Configuration Dialog Box



4. Select **Gateway** to create a new gateway.
5. In the **Gateway Name** box, type **rfaxgate**.
6. In the **Gateway Home Directory** box, enter the API folder.
7. In the **Version** box, enter **4.X**.
8. In the **Gateway Type** box, enter **API**.

Once the API gateway has been created, the RightFax e-mail gateway looks in the gateway home folder for a file called API.exe to confirm that it has found the GroupWise API folder. If your version of GroupWise did not automatically create this file, you must create the file manually. From a command prompt, change to your GroupWise API home folder and type:

copy con api.exe

and then press ENTER ENTER CTRL+Z ENTER

The GroupWise API gateway and Message Transfer Agent must run continuously in order for your GroupWise e-mail gateway to operate. The computer on which they are installed should not be turned off and must always be logged on to your network.

Configuring SMTP/POP3 gateway installations

For SMTP/POP3 installations, SMTP/POP3 server(s) must be accessible by the computer running the RightFax e-mail gateway(s). However, it is not necessary to install it on the same computer as the RightFax server or the gateway.

Warning *The RightFax e-mail gateway is not designed for use with the GroupWise SMTP. Use the Groupwise API (described on page 276).*

You must create a new POP3 mailbox specifically for use by the gateway. The gateway will periodically check this mailbox for fax-bound e-mail messages to forward to the fax server. Several common configurations for routing fax-bound e-mail messages to this mailbox are outlined in the following sections. Although the configurations vary, the goal is always the same—to route outgoing fax-bound e-mail messages to the mailbox on the SMTP server specified in the **POP3 Mailbox Name** box in the **E-mail Configuration** dialog box (see "Adding and Configuring E-mail Gateways" on page 278).

Note *The RightFax e-mail gateway for SMTP/POP3 can be set to recognize one of three addressing schemes for specifying outgoing fax information like the fax number and recipient name (see "Using the RightFax addressing scheme" on page 282). In the examples that follow, the RightFax addressing scheme is used.*

Dedicated domain for fax-bound e-mail messages

This is typically the easiest configuration for e-mail users to understand and for SMTP/POP3 mail client software to access. E-mail users send all fax-bound mail messages to a specific domain (e.g., faxgate.company.com) and specify the pertinent fax information as the mailbox portion of the mail address (left of the @ symbol). For example:

/fax=555-1212/name=Jane Doe@faxgate.company.com

Create a domain on your SMTP/POP3 mail server that will be dedicated to receiving fax-bound mail messages. All mail messages received at this domain must be placed in the POP3 mailbox specified in the **POP3 Mailbox Name** box in the **E-mail Configuration** dialog box. The RightFax e-mail gateway will periodically check this mailbox for outgoing messages. If the messages contain valid fax addresses, they will be routed to the RightFax server for transmission.

A new MX (mail exchanger) entry in the DNS server may be required to tell other computers what mail server handles messages for the new domain.

Mailbox pattern-matching routing

This addressing scheme has the advantage of not requiring a new mail domain; however, e-mail users may not find it as intuitive as the dedicated domain method (page 277).

Many mail servers allow messages with addresses that match a specific pattern to route to a particular mailbox. For example, the pattern "fax=*" (meaning any mailbox that starts with text "fax=") can be defined to route matching addresses to the e-mail gateway's POP3 mailbox on the SMTP server. An address matching this pattern might look like this:

/fax=555-1212/name=Jane Doe@company.com

Simple mailbox with description-area fax information

Note *This configuration is not compatible with the IETF addressing scheme. If your SMTP server requires that you use this addressing method, you must use the RightFax addressing scheme (page 282).*

Some SMTP mail servers allow very few configuration and routing options. In these cases, fax-bound e-mail messages can be addressed directly to the e-mail gateway's POP3 mailbox. Fax destination information is specified in the description-area of the address string, using the same method used to provide descriptive names for standard e-mail addresses. For example:

"/name=Jane/fax=5551212/" <faxgate@company.com>

The information in quotes is not interpreted as part of the address. It is treated as descriptive information only. The e-mail message is routed directly to the "faxgate" mailbox on the SMTP mail server. In this example, the name of the mailbox specified in the POP3 **Mailbox Name** box in the **E-mail Configuration** dialog box (where the gateway checks for outgoing faxes) is "faxgate." When destination fax information is not found as part of the address, the RightFax e-mail gateway scans the descriptive information.

Although this method requires little configuration at the mail server, many e-mail client programs make it difficult to add descriptive information to an e-mail address, often misinterpreting it as part of the mail destination address.

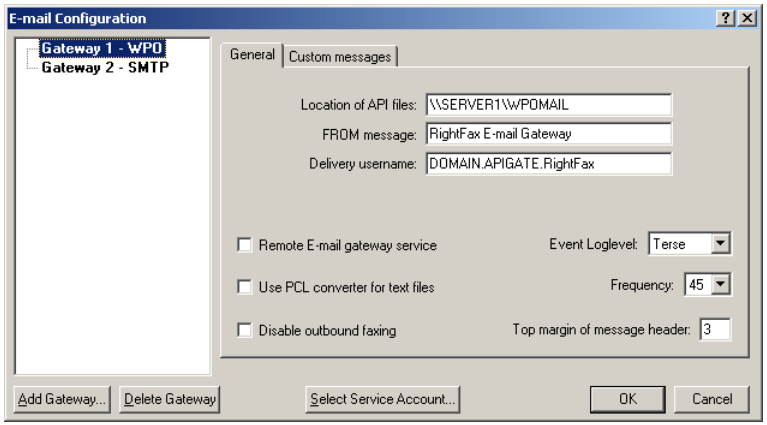
Adding and Configuring E-mail Gateways

To add or configure an e-mail gateway, run the E-mail Gateway configuration program.

- If you did not add an e-mail gateway during the RightFax server installation, you can open the E-mail Gateway configuration program from Windows Control Panel.
- If you already have one or more e-mail gateways configured, you can open the E-mail Gateway configuration program by double-clicking the RightFax E-mail Gateway service in Enterprise Fax Manager.

The **E-mail Configuration** dialog box opens.

Figure 27.2 The E-mail Configuration Dialog Box General Tab



To add a new gateway, click **Add Gateway** and select the type of gateway to add. Because RightFax allows you to install multiple e-mail gateways, each installed gateway is listed in the tree on the left. Click each gateway in the list to view its configuration options.

The **E-mail Configuration** dialog box will show different options on the **General** tab depending on the gateway you are configuring. For a description of each setting in the **E-mail Configuration** dialog box, click the **[?]** icon in the top right corner of the dialog box, and then click the element you want defined.

Tip *Select* ***Use PCL converter for text files*** *if you plan to use embedded codes in your faxes.*

Setting the SMTP/POP3 E-mail Delivery Direction

The SMTP/POP3 E-mail Gateway can process either inbound or outbound messages, or both, depending on the needs of your organization. With this feature, it is possible to create one gateway that will process both in- and outbound messages, or multiple gateways that can be dedicated for either inbound or outbound messaging only.

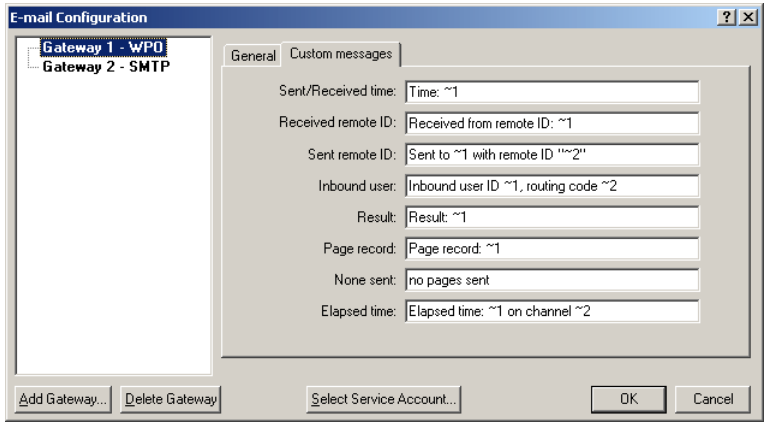
Using multiple gateways also lets you make the best use of multiple mail servers. For example, if you have two mail servers (one dedicated to SMTP and one dedicated to POP3) you can create two equivalent SMTP/POP3 E-mail Gateways and set one to perform only inbound messaging and the other to perform only outbound messaging.

To set the delivery direction for your SMTP gateway, select the appropriate option in the **E-mail Delivery Direction** field in the **E-mail Configuration** dialog box.

Custom messages

When a fax is received as an e-mail attachment or when an e-mail fax status notification is received, a header is included in the mail message that provides details about the fax. To customize the text of these header messages, click the **Custom Messages** tab.

Figure 27.3 The E-mail Configuration Dialog Box Custom Messages Tab



The options on this tab are the same for all e-mail gateways. Each message combines text with one or more variables and each has its own available variable options, described in the following table.

Table 27a E-mail Gateway Custom Message Settings

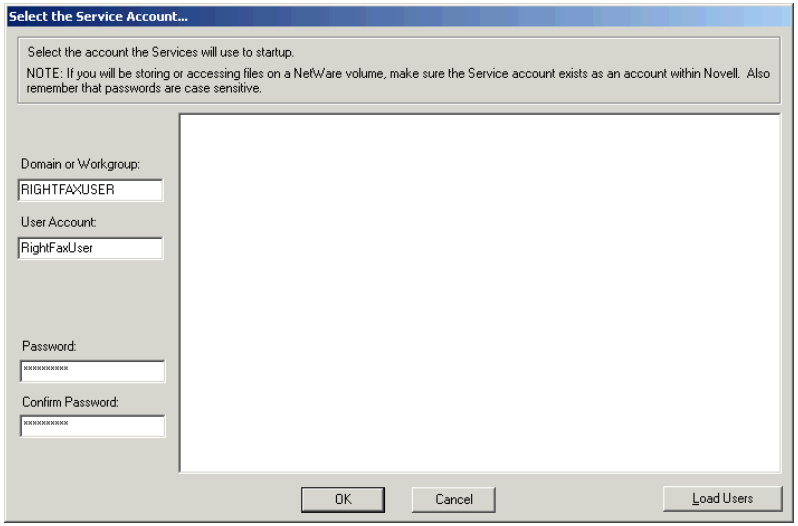
Notification message	Variable options
Elapsed time	~1 = The total time that the fax spent being processed by the fax board displayed (MM:SS) ~2 = The fax channel used to send or receive the fax
Inbound user	~1 = The RightFax user ID of the fax recipient ~2 = The fax recipient's routing code
None sent	N/A
Page record	~1 = The range of page numbers successfully sent or received
Received remote ID	~1 = Remote ID
Result	~1 = The result code and any accompanying text as reported by the fax board (These codes and messages may differ depending on your fax board type.)
Sent remote ID	~1 = The destination fax number ~2 = The destination remote ID
Sent/Received time	~1 = Date (in Windows locale format) and time (HH:MM)

Select service account

Note *If you will be storing or accessing files on a NetWare volume, you must make sure the Service Account also exists as an account within Novell.*

All RightFax e-mail gateways log on to the network as a services using a Windows NT based user account that you specify. To change the e-mail gateway service account, click **Select Service Account**. The **Select Service Account** dialog box opens.

Figure 27.4 The Select Service Account Dialog Box



This dialog box lists all the user accounts in a specified domain and select the user account that the e-mail gateway will use to log in to the server. Click **Load Users**. This lists each user account in all domains on the network. Click a user account in the list to automatically fill in the **Domain or Workgroup** and **User Account** boxes. Enter the password for the selected user account in both the **Password** and **Confirm Password** boxes. Click **OK** to apply the new service account.

Starting and stopping the gateway service

After installing the gateway, a new service called the RightFax E-mail Gateway Module is created. If the e-mail gateway is running on the same computer as the fax server, the service is set to "Manual" and is automatically started and stopped by the RightFax Server service. You should not stop the RightFax E-mail Gateway Module service manually. However, if the e-mail gateway is running on a remote computer (see "Running the E-mail Gateway Remotely" on page 287), you must start and stop the gateway service manually.

SMTP/POP3 gateway registry settings

The following registry keys can be added to the Windows server registry to further configure your SMTP/POP3 gateway. The key types are specified for each entry and must be entered under the appropriate gateway number if more that one gateway is installed.

Table 27b Optional E-mail Gateway Registry Settings

Registry key	Data type	Description
SkipEmpty Attachments	REG_DWORD	The gateway will scan the bodies of fax-bound mail attachments and discard empty ones. This registry key prevents blank fax pages from being sent (0=disabled, 1=enabled).
ExtraHeaders	REG_MULTI_SZ	Text entered here will be added to the headers of all mail-bound faxes going to the SMTP server.
IncludeHeaders	REG_MULTI_SZ	Only the headers listed here will be added to the fax cover sheet Notes area. Leaving this blank will allow all headers to be included. Values in this entry are not case-sensitive.
ExcludeHeaders	REG_MULTI_SZ	Any headers listed here will be removed from the fax cover sheet Notes area. Values in this field are not case-sensitive.

Sending a Fax from GroupWise

Sending a GroupWise message to a fax number is similar to sending e-mail, except the message must be specially addressed. Text entered in the **Subject** box in GroupWise will appear in the "Notes" section of the fax cover sheet. Text entered in the body of the e-mail will appear as the body of the fax. Attached files will be converted to fax images and appended to the fax. (For a list of supported file types, see Appendix B, "File Formats that Convert to Fax Format".) Unsupported file attachments cannot be converted and will be ignored.

To send a GroupWise message as a fax

1. Create a new message in GroupWise.
2. In the **To** box, address the e-mail message to the GroupWise API gateway in this format:

   APIGatewayName.{*FaxNum*/*Name*,*FaxNum*/*Name*,...**}**

   Where *FaxNum* is the destination fax number and *Name* is the name of the recipient as you want it to appear on the fax cover sheet. For example:

   rfaxgate.{555-1212/Bob Smith}

   To send the message to multiple fax destinations, separate fax number/name objects with a comma. For example:

   rfaxgate.{555-1212/Bob Smith,555-4321/John Doe}
3. Compose and send the e-mail message normally. The e-mail gateway will recognize the message as going to a fax destination and will forward it to RightFax for sending.

Sending a Fax via SMTP/POP3

Sending a SMTP/POP3 message to a fax number is similar to sending e-mail, except the message must be specially addressed. Text entered in the **Subject** box will appear in the "Notes" section of the fax cover sheet. Text entered in the body of the e-mail will appear as the body of the fax. Attached files will be converted to fax images and appended to the fax. (For a list of supported file types, see Appendix B, "File Formats that Convert to Fax Format".) Unsupported file attachments cannot be converted and will be ignored.

The RightFax e-mail gateway looks for fax-bound e-mail messages in a dedicated POP3 mailbox on the SMTP mail server. Fax destination information must be included somewhere in the address of each message. The SMTP/POP3 gateway supports three addressing formats: Simple SMTP Fax Addressing, RightFax-specific format, and another format proposed by the Internet Engineering Taskforce (IETF). Which addressing scheme the gateway will recognize is specified in the SMTP/POP3 **E-mail Configuration** dialog box (see "Adding and Configuring E-mail Gateways" on page 278).

Important *For the SMTP gateway to correctly display characters such as the Euro symbol in the subject line and body text of the received e-mail message, the client application must send data to the RightFax server using UTF-8 encoding. UTF-8 encoding must be configured as a system setting on each client computer that uses the SMTP gateway.*

Using the Simple SMTP Fax Addressing scheme

The Simple SMTP Fax Addressing scheme allows fax-bound e-mail messages to be addressed using a format that is similar to standard SMTP addressing - <fax number>@domain.com

For example, to send a fax-bound SMTP message to the fax number 555-1212 with a domain of RightFax.com, the address format would read:

5551212@RightFax.com

The following table lists the characters supported by Simple SMTP Fax Addressing. Space and Tabs are removed.

Table 27c Supported Simple SMTP Fax Addressing Characters

Character	Example
0-9	0123456789@<domain.com>
*	123*456@<domain.com>
#	#123456@<domain.com>
+	+15551212@<domain.com>
-	555-1212@<domain.com>
A-Z	ABCDEFG@<domain.com>
.	Name.Org@<domain.com>

Using the RightFax addressing scheme

The RightFax addressing scheme allows a great deal of flexibility in how fax-bound e-mail messages are addressed. In all cases, faxes must be addressed in such a way that they are forwarded to a mailbox that has been dedicated to RightFax. How fax-bound messages are routed to this mailbox depends on how you configured the SMTP server (see "Configuring SMTP/POP3 gateway installations" on page 277). In addition, the name and fax number for the recipient must be included as part of the address. Use these rules to address fax messages using the RightFax addressing scheme:

- The first forward-slash encountered in the address indicates the beginning of the fax destination information.
- Each element of fax information (such as name and fax number) is separated by a forward-slash.
- Addressing elements can appear in any order (i.e., the fax number can come either before or after the name).
- Addressing elements cannot be separated by the RightFax mailbox address itself.
- A fax recipient name and destination fax number are required. If either element is not found, the message will be discarded.
- The last element of fax information must be terminated by either a forward-slash (/), an '@' symbol, or the end of the line. This allows any character to be part of a fax information element, including spaces.

If a special character is required as part of a fax information element, it can be specified by using a percent symbol (%) followed by the ASCII value of the character expressed in hexadecimal. For example, the space character has the ASCII value of 32, which is written as 20 in hexadecimal, so a space can be represented as '%20'. This encoding is only required if the special characters needed cause problems for your mail system.

The following table lists all fax destination elements supported by the RightFax addressing scheme. Only the fax number and name elements are required. Except for the fax number, all of these addressing elements are used only for display on the fax cover sheet.

Table 27d RightFax Scheme Addressing Elements

Element	Definition	Example
/bi1=	Billing code 1	/bi1=1111
/bi2=	Billing code 2	/bi2=2222
/city=	Recipient city, state	/city=Tucson, AZ
/com=	Recipient company name	/com=Acme, Inc.
/fax=	Destination fax number	/fax=555-1212
/name=	Recipient name	/name=Jane Doe
/voice=	Recipient voice number	/voice=555-4567

Examples /name=Jane/fax=555-1212@faxgate.company.com
/fax=5551212/name=Jane/com=Acme@faxgate.acme.com
faxgate@company.com/name=Jane/fax=555-1212
/name=Jane%20Doe/fax=5551212/faxgate@company.com

Using the IETF addressing scheme

The IETF addressing scheme requires faxes be addressed in such a way that they are forwarded to a mailbox that has been dedicated to RightFax. How fax-bound messages are routed to this mailbox depends on how you configured the SMTP server see "Configuring SMTP/POP3 gateway installations" on page 277. In addition, the name and fax number for the recipient must be included as part of the address. Use these rules to address fax messages using the IETF addressing scheme:

- Only the portion of the address to the left of the domain name (everything to the left of the '@' sign) is significant to the fax destination.
- The address must begin with the fax destination number.
- The fax number can be followed by one or more optional keywords that provide additional fax information.

The following table lists supported keywords for the IETF addressing scheme.

Table 27e IETF Scheme Addressing Elements

Element	Definition	Example
/dd.bi1=	Billing code 1	/dd.bi1=1111
/dd.bi2=	Billing code 2	/dd.bi2=2222
/fax=	Recipient fax number	/fax=555-1212
/g=	Recipient first (given) name	/g=Jane
/i=	Recipient middle initial	/g=M
/o=	Recipient company name	/o=Acme, Inc.
/pn=	Recipient name (separate first, middle, and last name with a period)	/pn=Jane /pn=Jane.Doe /pn=Jane.M.Doe
/s=	Recipient last name (surname)	/s=Doe

Any invalid keywords included in the address will be ignored.

Example fax=555-1212@faxgate.company.com
/fax=555-1212/pn=Jane.Doe@faxgate.company.com
fax=5551212/g=Jane/s=Doe/o=Acme@faxgate.acme.com

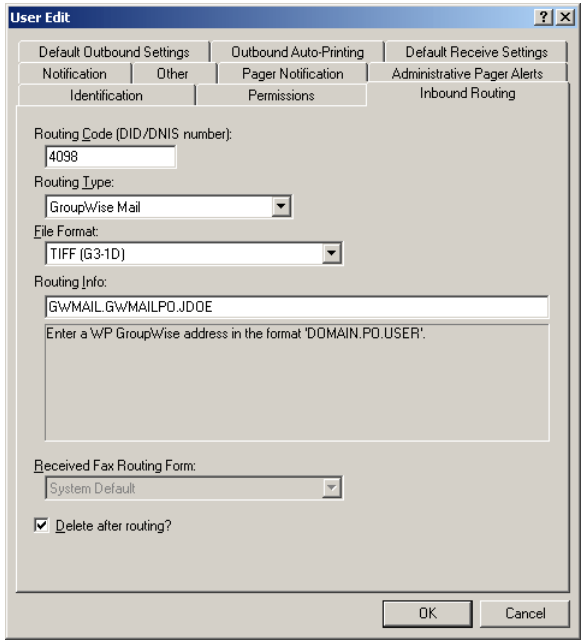
Receiving Faxes via E-mail

With the RightFax e-mail gateways, RightFax users can receive faxes as e-mail message attachments instead of (or in addition to) receiving them in their FaxUtil mailboxes.

To configure a user to receive faxes in e-mail

1. In Enterprise Fax Manager, double-click the user to open the **User Edit** dialog box, and then click the **Inbound Routing** tab.

Figure 27.5 The User Edit Dialog Box Inbound Routing Tab



2. In the **Routing Type** box, click your e-mail gateway type.
3. In the **File Format** box, click the file format RightFax will use for the fax attachment. For information on each fax image format, see "File Format" on page 127.

Important *If you will be routing faxes to Microsoft Outlook mailboxes and your users have the Advanced Outlook form installed, you must select TIFF as the file type for routing. The Outlook Advanced forms do not support other file types.*

4. The **Routing Info** box setting depends on the type of e-mail gateway you have installed.
   - For GroupWise installations, enter the domain, post office, and GroupWise account name for the user in the format *domain.mailpo.user*. For example: gwmail.gwmailpo.jdoe.
   - For SMTP/POP3 installations, enter the user's SMTP e-mail address (e.g., user@company.com). For example: jdoe@acme.com.
5. Select the **Delete After Routing** check box only if you want to delete the fax from the user's FaxUtil mailbox after it is routed to e-mail. If RightFax cannot route a fax to the destination e-mail mailbox, it will leave the fax in the user's FaxUtil mailbox regardless of how this option is set.

Associating fax attachments with the RightFax Fax Viewer

The best way to view a fax that has been delivered as an e-mail attachment is to associate it with the RightFax Fax Viewer. When you associate received faxes with the RightFax Fax Viewer, they will open when you double-click the attachments in your mail messages.

To associate your fax images with the Fax Viewer

1. In Windows 2000 and Windows XP, run Windows Explorer.
2. In the **View** menu, select **Folder Options**. The **Folder Options** dialog box opens. Click the **File Types** tab.

3. Scroll through the list of file types until you find the type you selected for fax routing (TIF, PCX, or DCX). Highlight the file type and click **Change**. The **Open With** dialog box opens.
4. In the **Open With** box, browse to the file WFaxVw32.exe located on the RightFax server in the folder: Program Files\RightFax\Shared Files.

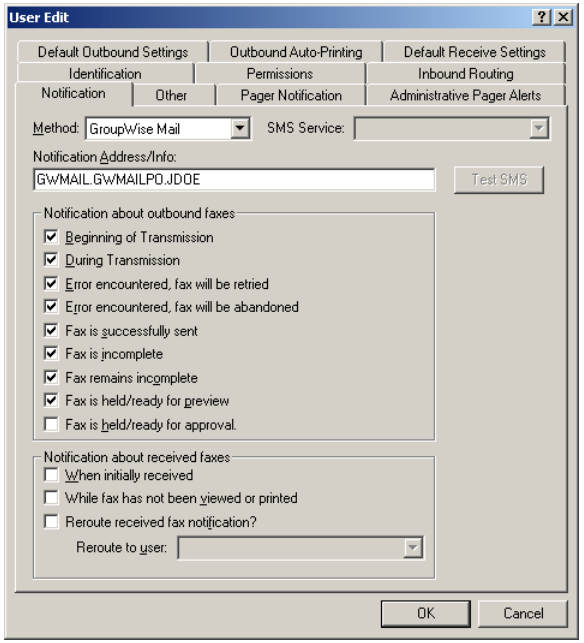
E-mail Notification of Received Faxes

The RightFax e-mail gateways can be used to notify users of received faxes whether or not the installed gateway is configured to send and receive faxes.

To configure a user to receive fax notification in e-mail

1. In Enterprise Fax Manager, double-click the user to open the **User Edit** dialog box, and then click the **Notification** tab.

Figure 27.6 The User Edit Dialog Box Notification Tab



2. In the **Notification Method** box, click your e-mail gateway type.

3. The **Notification Address/Info** setting depends on the type of e-mail gateway you have installed.
   - For GroupWise installations, enter the domain, post office, and GroupWise account name for the user in the format [*domain*].[*mailpo*].[*user*]. For example: gwmail.gwmailpo.jdoe.
   - For SMTP/POP3 installations, enter the user's SMTP e-mail address (e.g., user@company.com). For example: jdoe@acme.com.

The notification method can be configured for a user group by editing the group ID properties in Enterprise Fax Manager and setting the group **Notification Type** to the option that corresponds to your e-mail gateway type.

Embedded Codes in Mail Messages

Embedded codes are special faxing instructions that you insert directly into fax-bound documents such as e-mail messages. You can use embedded codes to include fax cover sheet information, attach library documents, add billing information, and more.

To add an embedded code to an e-mail message, type the code you want, along with any required parameters, between angle brackets. For example, an embedded code that tells RightFax to send a library document called "PriceSheet" is written as:

<LIBDOC:PRICESHEET>

RightFax removes all embedded codes from the mail message when it converts it to fax form so they don't appear in your final fax. If you type an embedded code incorrectly, it will be ignored by RightFax and will be included in your fax. Embedded codes can be written in either upper or lower case.

Embedded codes can be placed anywhere in the body of the mail message (they will not work in the **Address** or **Subject** boxes). Embedded codes cannot line wrap and any embedded code statement that is so long that it wraps to a second line will be ignored.

The RightFax e-mail gateways support the following embedded codes. For descriptions and examples of each embedded code, see Appendix A, "RightFax Embedded Codes".

- ATDATE
- ATTIME
- CHANNEL
- COVER
- DELETE
- DELETEALL
- FCSFILE
- FINE
- FROMFAXNUM
- FROMGENFAXNUM
- FROMGENPHONE
- FROMNAME
- FROMPHONE
- IGNORE
- LIBDOC (Same as LIBDOC2 in e-mail gateways)
- LIBDOC2
- NOCOVER
- NORMAL
- PREVIEW
- PRIORITY
- SAVE

Running the E-mail Gateway Remotely

By default, each e-mail gateway installs and runs directly on the RightFax server. However, there are some situations in which it is beneficial to run the e-mail gateway on a different computer on your network. You might not, for example, want to increase the workload on your fax server. Or, you may anticipate a very high volume of gateway traffic and don't want the added workload to interfere with the routine operation of your fax server.

To run the gateway remotely

1. Select the RightFax E-mail Gateway configuration in Enterprise Fax Manager. The **E-mail Configuration** dialog box opens.
2. Select the **Remote E-mail Gateway Service** check box to enable remote operation.
3. On the remote computer where you want to run the gateway, map a drive to the RightFax folder on the RightFax server. In a command prompt window, switch to the Gateway folder on that drive.
4. To run the e-mail gateway, enter the command for your gateway from the following table.

Table 27f Commands Required to Run Each E-mail Gateway from the Command Prompt

E-mail gateway type	Command
Novell Groupwise	**wpogateway -l***path* **-f***database* **-sgateway***n*
SMTP server	**smtpgateway -l***path* **-f***database* **-sgateway***n*

Where *path* is the directory path to the RightFax files, *database* is the name of the server containing the fax database, and *n* is the number of the e-mail gateway. This number is zero-based, so your first e-mail gateway is referred to as "gateway," your second e-mail gateway is referred to as "gateway1," your third e-mail gateway is referred to as "gateway2," and so on. To confirm the gateway number, open the Windows registry and check the Gateway keys under HKEY_LOCAL_MACHINE\SOFTWARE\RightFax\Gateways.

Example smtpgateway -lr: -frfaxserv -sgateway

This example starts the Remote Gateway service process from R:, which is mapped to the RightFax folder on the fax server. The process will look for the RightFax Database Module on the server "rfaxserv."

Troubleshooting the E-mail Gateways

If you experience problems with your RightFax E-mail Gateway Module service, you should first check for errors in the Application log of the Windows Event Viewer. Select **Start > Programs > Administrative Tools > Event Viewer**. In the Event Viewer, select

Application from the **Log** menu to open the Application log. E-mail gateway-related problems will appear on the log in the **Source** column as "RightFax E-mail Gateway Module." Double-click the entry for a description of the error.

The amount and type of information saved to the Event log is determined by the **LogLevel** setting in the RightFax E-mail Gateway configuration in Enterprise Fax Manager. With the log level set to terse, only critical errors will be recorded. Log levels normal and verbose record more information which may help track down problems.

Running the gateway in a command prompt window will also give a very detailed report of gateway events. To run the gateway in a command window, first make sure that the RightFax E-mail Gateway Module service is stopped (for information on stopping the RightFax services, see "Starting and stopping services" on page 118.) Open a command prompt window and change to the RightFax\Gateway folder. To run the gateway, enter the command for your gateway from the following table.

Table 27g Commands Required to Run Each E-mail Gateway from the Command Prompt

E-mail gateway type	Command
Novell Groupwise	**wpogateway -d -1 -sgateway***n*
SMTP server	**smtpgateway -d -1 -sgateway***n*

Where *n* is the number of the e-mail gateway. This number is zero-based, so your first e-mail gateway is referred to as "gateway," your second e-mail gateway is referred to as "gateway1,"your third e-mail gateway is referred to as "gateway2," and so on. To confirm the gateway number, open the Windows registry and check the Gateway keys under HKEY_LOCAL_MACHINE\SOFTWARE\RightFax\Gateways.

Example If you are running the SMTP gateway and it is your only e-mail gateway, enter: smtpgateway -d -1 -sgateway

When running the e-mail gateway in a command window, you must set the window properties to allow you to scroll back many lines. To set the command window to sufficient size, click the MS-DOS icon in the top left of the command window. Click **Properties** to open the **Command Prompt Properties** dialog box. Click the **Layout** tab, and then set **Screen Buffer Size** height to "2000."

Error 2140 Starting Service

Error 2140 is a generic Windows NT based error stating that the service did not start. Check the Event Viewer Application log, under the **Source** column "RightFax E-mail Gateway Module" for more details.

Error 53

This is a Windows NT based networking error which indicates that the UNC name that was specified for the **Location of Mail Files** in the gateway configuration is an invalid network path. If the specified path is correct and valid, it may be that the account being used to start the E-mail Gateway Module service does not have access rights to that folder.

Error 85 The local device is already in use

This is a Windows NT based networking error stating that the drive to which RightFax is trying to connect the UNC name that was specified for the **Location of Mail Files**, or **API Files** is already assigned.

No faxes are going out of mail

One or all of the GroupWise components are not running. The folders API_IN and API_OUT may not have been created when the GroupWise API gateway was installed. Also, the UNC name you gave as the Location of the mail files, may be misspelled or the E-mail Gateway Module service account does not have access. This can be tested by running this at the command prompt of the fax server when logged on using the selected account:

dir **[*servername*]\mail\wpdomain\wpgate\api40**

Error 2140 Starting Service

When the GroupWise gateway starts, it looks for a file called API.exe to confirm that it has found the correct GroupWise API folder. This file may not exist in the GroupWise API gateway folder. Manually creating a file called API.exe will fix this problem. Create this file from a command prompt by switching to the GroupWise API folder and type:

copy con api.exe

and then press ENTER ENTER CTRL+Z ENTER

Error 80 Unable to access the GroupWise API directory

The file API.exe exists in the RightFax temporary folder. If this is the case, delete the file from the RightFax temporary folder.

▪ ▪ ▪

Chapter 28

Using TeleConnect to Access Faxes by Phone

The RightFax TeleConnect feature gives RightFax users the convenience of 24-hour access to their fax mailboxes via a touch-tone telephone. Users can use RightFax's automatic forwarding, printing, and notification features to manage faxes at any time of day, from any location, with a single telephone call. With TeleConnect, users dial directly into the RightFax server and hear a menu of options that lets them:

- Retrieve new faxes
- Retrieve a catalog of faxes
- Retrieve specific faxes from the catalog
- Hear fax statistics
- Change fax mailbox options

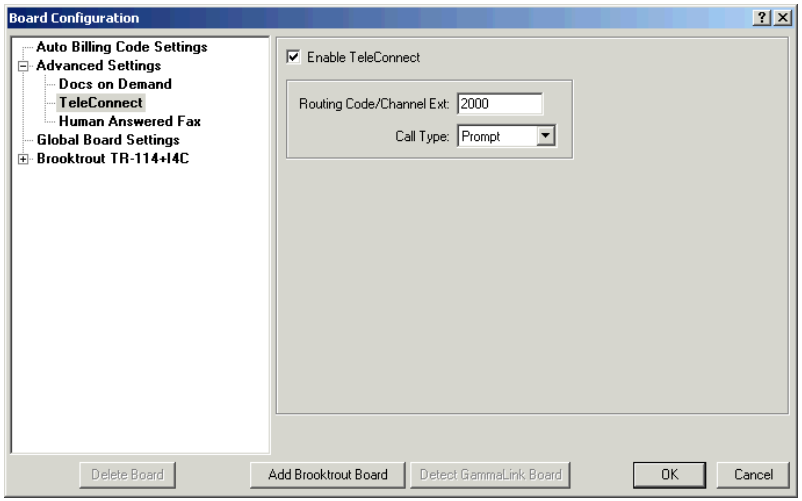
To run TeleConnect, you must have a RightFax server installed and operational. Because it uses digital voice prompts, you must also have a Brooktrout fax board with voice capability installed.

TeleConnect does not require a separate or additional installation to your fax server.

Configuring TeleConnect

To configure TeleConnect, run the RightFax BoardServer configuration program from Windows Control Panel on the RightFax server to display the **Board Configuration** dialog box. Expand the **Advanced Settings** option in the component tree in the left pane and then click **TeleConnect**.

Figure 28.1 The TeleConnect Configuration Dialog Box



Enable TeleConnect Enables the TeleConnect Module.

Routing Code/Channel Ext Specifies the routing code (such as DTMF extension or DID number) that will be assigned to TeleConnect. When calls arrive on this extension they will enter the TeleConnect system automatically, rather than being received as an incoming fax.

If you have a bank of numbers dedicated to your fax server, you must assign one of the numbers to TeleConnect by entering the extension here. If you have only analog channels you must dedicate one of your fax channels to TeleConnect. To do this, enter a unique four-digit number in this box, and then click the channel you want to dedicate under **Global Board Settings** in the left pane and enter the same four-digit value in the **Channel Extension** box. Users must be able to dial into this channel directly. The channel should not be part of a hunt group unless all the channels in that hunt group are dedicated to TeleConnect. Otherwise, dialing the number may cause users to hear a fax tone instead of accessing the TeleConnect system.

You can also turn on DTMF routing for a particular analog channel. When users dial this number they will hear a tone or voice prompt to enter an extension. Enter a unique four-digit extension in this box. If you tell your users to enter this number when they hear the prompt, they will connect to the TeleConnect system. If this number is not entered after a few seconds (depending on the DTMF timeout value), the channel will provide a fax tone and attempt to receive a fax.

Call Type Specifies how TeleConnect will connect to the caller when faxes are requested. "One Call" requires the user to call from a fax machine. TeleConnect uses the same connection to send faxes back to the caller without having to initiate a second call. In this way, TeleConnect incurs no phone charges. "Two Call" causes TeleConnect to request the recipient's fax number and then initiates a separate call to send faxes. "Prompt" asks each user to specify a one- or two-call session.

RightFax user setup

To use TeleConnect to access RightFax via touch-tone phone, the caller must have a RightFax user account with unique numeric **Voice Mail Subscriber ID** setting and a **Password**. (The **Password** setting *cannot* be blank.) TeleConnect uses these setting to identify the user when calling in to the system.

For information on creating and editing RightFax user accounts, refer to the *RightFax Administrator's Guide*.

Retrieving Faxes Via TeleConnect

When retrieving your faxes via TeleConnect you can choose to have all new faxes that have not yet been viewed or printed sent to a specified fax machine, or you can retrieve a specific fax by specifying its TeleConnect ID number. A TeleConnect ID is assigned to every outgoing and incoming fax processed by RightFax. After a fax is assigned a TeleConnect ID, it keeps that ID until it is deleted from the system.

Each fax's TeleConnect ID is displayed when you receive notification of the fax's arrival, whether the notification is received via network broadcast or e-mail gateway. If you don't know the TeleConnect ID of the specific fax you want, the TeleConnect Main menu gives you the option of retrieving a list of all faxes in your RightFax mailbox along with their TeleConnect IDs.

To access your RightFax mailbox with TeleConnect

1. Dial the phone number that you specified in the **Routing Code/Channel Ext.** box of the TeleConnect configuration (see "Routing Code/Channel Ext" on page 292).
2. When the system prompts you, enter your RightFax voice mail subscriber ID and press the pound key (#).

3. When the system prompts you, enter your RightFax password and press the pound key (#).

   If your RightFax password does not consist of numeric digits only, you can enter alphanumeric characters by pressing the keys on the telephone keypad that the characters are on. To enter the word 'PASSWORD' the caller should enter '72779673'. Any digit will work for the letters Q and Z.

4. After TeleConnect validates your voice mail subscriber ID and password, you will be placed in the main menu (described in the next section).

The TeleConnect main menu

The following table lists the options available from the TeleConnect main menu. There may be additional prompts and messages depending on your system's configuration.

Table 28a TeleConnect Menu Options

Main menu option	Option/description
[1] Retrieve Faxes	[1] Retrieve all new faxes [2] Retrieve a list of all inbound and outbound faxes [3] Retrieve faxes by their TeleConnect ID
[2] Retrieve a List of All Faxes	Retrieve a list of all inbound and outbound faxes
[3] Fax Mailbox Statistics	[1] Outbound fax statistics, including total outbound fax count, total fax pages sent, total faxes sent successfully, total failed faxes, and total faxes in process [2] Inbound fax statistics, including total inbound fax count, and total received fax pages
[4] Change Fax Options	[1] Enable automatic fax forwarding [2] Enable automatic printing [3] Enable alternate notification

Although you can enable automatic forwarding, automatic printing, and alternate notification via TeleConnect, you must first configure the forwarding, printing, and notification destinations in your FaxUtil mailbox. For information on using these and other FaxUtil mailbox features, please refer to the FaxUtil online help.

Multilingual Support

The TeleConnect Module supports messaging in up to nine languages in addition to the English language default. When multilingual support is enabled, you can record your own language message files and save them to their own folders. When callers first dial into the system, TeleConnect will play a message asking them to select the language they want.

To enable multilingual support, add the TeleConnect registry keyword Multilingual(1).

Then create a TeleConnect registry keyword for each additional language you want to support using the format VoicePath#*(voicepath1*;*voicepath2),* where # is a number 2 through 9 that the user will press to access alternate language files (English is automatically set to "1"), *voicepath1* is the path to the local folder where the language files are stored, and *voicepath2* is an optional secondary folder path. If TeleConnect cannot find the file it wants in the first folder, it will look in the second folder.

For information on creating TeleConnect registry entries see "TeleConnect Registry Configuration" on page 298.

Multilingual selection prompts

After multilingual support is enabled, TeleConnect will automatically cycle through every defined VoicePath entry, starting with VoicePath1 and ending with VoicePath0. It will play message 010.VOX from each VoicePath folder, if the file exists.

The default message file 010 says "For an English language menu, press 1." In VoicePath2, this file might say (in Spanish) "For a Spanish language menu, press 2." In VoicePath3, it might say (in German) "For a German language menu, press 3."

Recording multilingual messages

You can record custom multilingual messages for TeleConnect using a third-party sound editor that supports the Dialogic OKI32 file format, or using the message recorder built into the Fax-on-Demand component of the Docs-on-Demand Module (if it is licensed and installed.) For information on using Docs-on-Demand to record prompts, refer to the *RightFax Docs-on-Demand Guide*.

Toll-Number Support

Your TeleConnect system can be set up on 1-900 and 1-976 toll-lines. FCC requirements for toll-numbers state that callers may not be charged until a full minute has gone by. During the first 30 seconds of the call, callers must be told how much they are going to be charged and they must agree to the charges. If the caller does not immediately agree to the charges, the line must be disconnected.

To enable toll-number support, add the TeleConnect registry keywords 900Enable(1) and 900Agree(*#*), where # is a number 0 through 9 that the caller must press to respond affirmatively and continue with the call. If this parameter is left blank, any key will be accepted. The system will automatically hang up on anyone who has not pressed the agree button within the first 28 seconds of the call.

For information on creating TeleConnect registry entries see "TeleConnect Registry Configuration" on page 298.

Toll-number prompt

Note *If you have both toll-number and multilingual support enabled, Fax-on-Demand will play the VoicePath prompts before the toll-number prompt. Because selecting a language option is interpreted as an agreement by the caller to accept the charges, toll-call information should be included in your foreign language prompts.*

After toll-number support is enabled, message 020.VOX will play one time. This message should explain how much the caller will be charged, that he must be 18 years or older, and request him to press a key to agree to the charges. This prompt must be less than the 28 second limit to press the required agreement key.

If the caller doesn't press a key or presses a key other than one specified by the 900Agree registry keyword, the line will be disconnected. If the caller presses the key specified by the 900Agree keyword (or any key if the 900Agree value is blank), the system will proceed to the Main menu.

Requesting Fax Routing Information

If a fax is sent to a number that delivers faxes to several people (such as a public or hotel fax machine), there may be a problem determining the fax recipient. TeleConnect can be configured to ask the caller to enter a name or phone number to assist in routing. Requests for fax routing information are skipped if the caller requests the fax(es) be sent back to the fax machine he is calling from using the same connection (the One-call option).

To ask the caller to enter a phone number to assist with routing, add the TeleConnect registry keyword AskVoiceNumber(1).

To ask the caller to enter an alphanumeric sequence (such as a name), add the TeleConnect registry keyword AskAlphaNumeric(1).

If either of these options is enabled, TeleConnect will play message file 306. If you enabled AskVoiceNumber only, message file 306 will be followed by message file 307. If you enabled AskAlphaNumeric only, message file 306 will be followed by message file 312. If you enabled both AskVoiceNumber *and* AskAlphaNumeric, message file 306 will be followed by message file 311. For a complete list of TeleConnect's message files refer to the next section.

Entering alphanumeric data via touch-tone phone

When you request alphanumeric input from the caller, this input must be specially encoded by the caller so the TeleConnect system knows exactly which character was intended. Each character requires the caller to press two buttons on the phone. Letters are encoded by pressing the button with the letter on it and then pressing 1, 2, or 3 to indicate whether you want the first, second, or third letter on the button. For the letter "A," for example, press 2, which has the letters ABC on it, followed by 1 to indicate that you want the first of those three letters. The following table lists all characters available via this encoding method.

Table 28b Alphanumeric Touch-Tone Key Sequences

A = 21	I = 43	Q = 01	Y = 93	2 = 20
B = 22	J = 51	R = 72	Z = 03	3 = 30
C = 23	K = 52	S = 73	Space = 02	4 = 40
D = 31	L = 53	T = 81	+ = 11	5 = 50
E = 32	M = 61	U = 82	- = 12	6 = 60
F = 33	N = 62	V = 83	. = 13	7 = 70
G = 41	O = 63	W = 91	0 = 00	8 = 80
H = 42	P = 71	X = 92	1 = 10	9 = 90

The decoded sequence will be used in the **To:** field on the fax cover sheet. The caller has 40 seconds to enter up to 60 digits, which will decode to a maximum of 30 characters.

Voice Prompt Files

The TeleConnect module uses voice prompt files located in the RFBoard\Mainapp\Voices folder on the RightFax server. Voice prompt files are saved as Dialogic® OKI32 files (.vox files). These files can be customized in Fax-on-Demand (described in the *RightFax Docs-on-Demand Guide*) or using a third-party sound editor that supports the Dialogic OKI32 file format.

All files in the RFBoard\Mainapp\Voices folder are listed in the following table along with their voice text.

Table 01 Voice Prompt Files Used by TeleConnect

File name	Voice prompt
a.vox	"...a..."
allque.vox	"All of your queued faxes will be sent."
b.vox	"...b..."
badfaxnum.vox	"Invalid entry. We will not send documents to that fax number."
badlogin.vox	"The mailbox and password combination you entered is not valid. Please try again."
beginrec.vox	"You may begin recording after the beep. Press pound when finished."
c.vox	"...c..."
catalog.vox	"...catalog..."
catalogs.vox	"...catalogs..."
count.vox	"...faxes with a total of..."
d.vox	"...d..."

Table 01 Voice Prompt Files Used by TeleConnect (Continued)

File name	Voice prompt
deliverif.vox	"Are you sure you want to delete this message? Press 1. If not, press 2."
doc.vox	"...document..."
docs.vox	"...documents..."
fax.vox	"...fax..."
faxes.vox	"...faxes..."
faxnum.vox	"Enter your fax number and then press the pound key."
faxtype.vox	"If you are calling from your fax machine, press 1. If you wish the fax delivered to a fax number, press 2."
fwdfax.vox	"Your faxes are currently being forwarded to..."
fwdfaxnm.vox	"Please enter the fax number to forward your faxes to."
fwdmenu.vox	"To automatically forward your faxes to a fax machine, press 1. To forward your faxes to a network user, press 2. To disable fax forwarding, press 3. To cancel changes, press the Star key."
fwdnous.vox	"You may not enable fax forwarding to a network user because a destination user has not been specified."
fwduser.vox	"Your faxes are currently being forwarded to a network user."
fwdwarn.vox	"Your fax forwarding option is currently set to a network user. If you change this, there will be no way to restore this setting over the telephone interface. If you still want to change this option, press 1. If not, press 2."
goodbye.vox	"Goodbye."

Table 01 Voice Prompt Files Used by TeleConnect (Continued)

File name	Voice prompt
greeting.vox	"Welcome to RightFax, the leading enterprise fax server."
hundred.vox	"...hundred..."
ifcorrec.vox	"If this is correct, press 1. To reenter, press 2."
invalid.vox	"Invalid entry. Please try again."
isnotavail.vox	"...is not available."
login1.vox	"Please enter your mailbox number."
login2.vox	"Please enter your security code."
mainmenu.vox	"To retrieve faxes, press 1. To retrieve a list of all faxes, press 2. To hear fax mailbox statistics, press 3. To change mailbox options, press 4. To quit, press the Star key."
million.vox	"...million..."
n00.vox	"...zero..."
n01.vox - n99.vox	"...one..." - "...ninety-nine..."
new.vox	"...new..."
nofwd.vox	"Your faxes are not currently being forwarded."
nonewfxs.vox	"You have no new faxes."
nonque.vox	"We are unable to queue your faxes for transmission."
noprinter.vox	"Your faxes may not be automatically printed because a destination printer has not been selected."
notavail.vox	"The fax server is not available. We are unable to process your call."
notones.vox	"No entries detected. Please try again."

Table 01 Voice Prompt Files Used by TeleConnect (Continued)

File name	Voice prompt
ntfdisab.vox	“Alternate notification to another network user is disabled.”
ntfenab.vox	“Alternate notification to another network user is enabled.”
ntfmenu.vox	“To enable alternate notification press 1. To disable alternate notification, press 2. To cancel changes, press the Star key.”
ntfwarn.vox	“You may not enable alternate notification because a network user to notify has not been selected.”
onecall.vox	“Shared call beginning.”
optmenu.vox	“For automatic forwarding options, press 1. For automatic printing options, press 2. For alternate notification options, press 3. To return to the Main menu, press the Star key.”
outbound.vox	“...outbound...”
page.vox	”...page...”
pages.vox	”...pages...”
pound.vox	“...pound...”
prndisab.vox	“Your faxes are not being automatically printed.”
prnenabl.vox	“Your faxes are currently being automatically printed.”
prnmenu.vox	“To automatically print your faxes, press 1. To disable automatic printing, press 2. To cancel changes, press Star.”
rcvstat1.vox	“...received faxes totalling...”
rcvstat2.vox	“...of your received faxes have not been viewed or printed.”
received.vox	“...received...”

Table 01 Voice Prompt Files Used by TeleConnect (Continued)

File name	Voice prompt
recmenu.vox	”To play back, press 1. To record, press 2. To save this message, press 3. To cancel changes, press 4. To delete this message, press 5.”
rtverr1.vox	“You entered an invalid fax ID number.”
rtvid1.vox	“You may retrieve up to...”
rtvid2.vox	“Enter the fax ID number and press Pound.”
rtvmax.vox	“You have entered the maximum allowable fax IDs.”
rtvmen.vox	“To retrieve all new faxes, press 1. To retrieve a list of all faxes, press 2. To retrieve faxes by their ID number, press 3. To return to the Main menu, press the Star key.”
sil_100.vox	0.1 second silence
sil_1000.vox	1 second silence
sil_250.vox	0.25 second silence
sil_500.vox	0.5 second silence
sntstat1.vox	“...outbound faxes totalling...”
sntstat2.vox	“...are in process...”
sntstat3.vox	“...have been sent successfully, and...”
sntstat4.vox	“...are abandoned.”
someque.vox	“Not all of your queued faxes will be sent due to an error.”
star.vox	“...star...”
statmenu.vox	“For statistics on outbound faxes, press 1. For statistics on inbound faxes, press 2. To return to the main menu, press the Star key.”
that.vox	“That...”
thissess.vox	“...this session.”

Table 01 Voice Prompt Files Used by TeleConnect (Continued)

File name	Voice prompt
thousand.vox	"...thousand..."
toprocee.vox	"To proceed..."
totaling.vox	"...totalling..."
upto.vox	"...up to..."
waitcnt.vox	"Please wait while the system retrieves your faxes."
waitgen.vox	"Please standby while we are processing your request."
youhave.vox	"You have..."
youmay.vox	"You may request..."
youselec.vox	"You selected..."

TeleConnect Registry Configuration

TeleConnect is configured primarily via multi-string (Reg_Multi_SZ) registry entries. Each channel dedicated to TeleConnect has its own configuration registry entry. The TeleConnect configuration registry entry is located at HKEY_LOCAL_MACHINE\Software \RightFax\BoardServer\TUI\Extensions. The multi-string registry entries for TeleConnect use this format:

extension`*keyword*(*value*)`*keyword*(*value*)`...

Where *extension* is the phone number extension or DID channel assigned to TeleConnect, ` is the "grave" character located on the same key as the tilde (~), *keyword* is one of the configuration setting keywords from the following table, and *value* is an optional value setting for the keyword. The phone number extension or DID channel assigned to TeleConnect is always the first entry. The extension and all keywords must be separated by a grave (`) character.

The following table lists all available TeleConnect keywords, and includes the default settings (if any) and descriptions.

Table 02 TeleConnect Registry Values

Keyword	Default	Description
900Agree	N/A	900 caller agreement sequence.
900Enable	False	900 telephone processing.
AppType	0	Application type: 0 = TeleConnect 2 = One-Doc Poll
AskAlphaNumeric	False	Ask caller for alpha-numeric sequence.
AskVoiceNumber	True	Ask caller for voice number.
CallType	0	Default call type: 0 = Prompt 1 = One-call 2 = Two-call
CSID	N/A	CSID to use during a one-call transaction. If blank, it uses the channel default.
DefaultBI1	N/A	Default billing code #1 for a two-call fax TeleConnect. If a fax is being forwarded from a user's mailbox, the system will attempt to use the billing codes from the source fax. If no billing codes are present in the source fax, the value specified here, and that of DefaultBI2, will be used.
DefaultBI2	N/A	Default billing code #2 for two-call.
MaxErrors	3	Maximum number of errors allowed (timeouts, invalid doc numbers, etc.) If this number is exceeded, the caller will be disconnected.

Table 02 TeleConnect Registry Values (Continued)

Keyword	Default	Description
MaxFaxes	32	The maximum number of faxes sent out in one call by TeleConnect.
Multilingual	False	Multilingual support enabled/disabled.
TransferSequence	N/A	PBX transfer sequence. If not blank, TeleConnect transmits this sequence just before hanging up. It is a standard Brooktrout® sequence (TP!F,;WU%1234567890ABCD). 39 characters max.
TUIReportPath	TUILOG	The path for TeleConnect reports. If a relative path-spec, it will be relative to the RFBoard folder.
VoicePath	MainApp\ voices; voices	The path(s) for voice prompt files. One or more folders the system will search to play a voice file. Folders are separated with a semicolon. A relative folder specification is relative to the RFBoard folder. Any recorded message will be recorded to the first folder listed.
VoicePath0	N/A	Language #0 voice folder(s).
VoicePath2 – VoicePath9	N/A	Language #2 voice folder(s) – Language #9 voice folder(s).

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Chapter 29

Backing Up and Maintaining the RightFax Software and Database

RightFax stores all of its data, including information on faxes, users, and dialing rules in a SQL database (although fax images are stored separately as graphic files in the RightFax\Image folder). This database may be installed directly on the RightFax server, or can be installed on an existing SQL server. You select where the SQL database is to be installed when you install the RightFax server software.

The SQL Express server that is provided with RightFax includes all of the SQL functionality required by the RightFax software. However, this version of SQL does not include all of the tools and administrative capabilities as the full version.

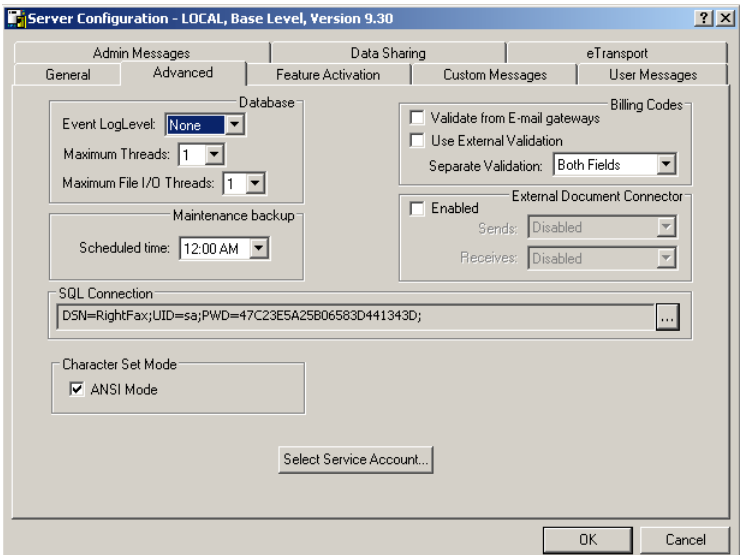
It is strongly recommended that you do not make any changes directly to the RightFax SQL database. A complete schema of the RightFax database can be viewed using SQL Administrator. An image of the schema is also available in the Docs folder on RightFax installation CD in the file RightFax Database Schema.pdf.

Changing the Connection to the SQL Server

RightFax creates and links to a SQL database during installation. However, the SQL database connection can be modified if at any time you need to make changes to your existing SQL installation.

To view your current SQL connection information, run the RightFax Server Configuration program from Windows Control Panel and click the **Advanced** tab. The SQL connection string is displayed in the **SQL Connection** box.

Figure 29.1 The Server Configuration *Advanced* tab



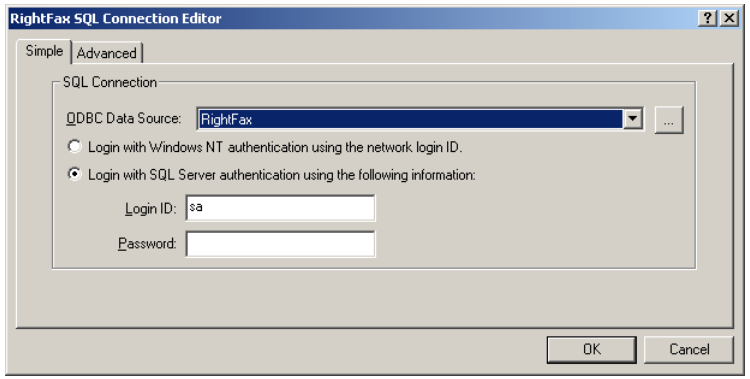
To edit the SQL connection, you must change the connection string in three places, the RightFax Server configuration, the DocTransport configuration, and in the registry.

Changing the SQL connection in the Server and DocTransport configuration applications

The steps for changing the SQL connection are the same in both of these applications. Make sure that you set the same SQL connection properties in both of these applications before making the registry change described in the next section.

Open each application and locate the SQL connection string in the **SQL Connection** box. Click the **[...]** button to the right of this box. This opens the **RightFax SQL Connection Editor** dialog box.

Figure 29.2 The RightFax SQL Connection Editor *Simple* tab



ODBC Data Source Use the drop-down button to select new a data source name (DSN). The DSN defines the fax server's connection to the SQL server.

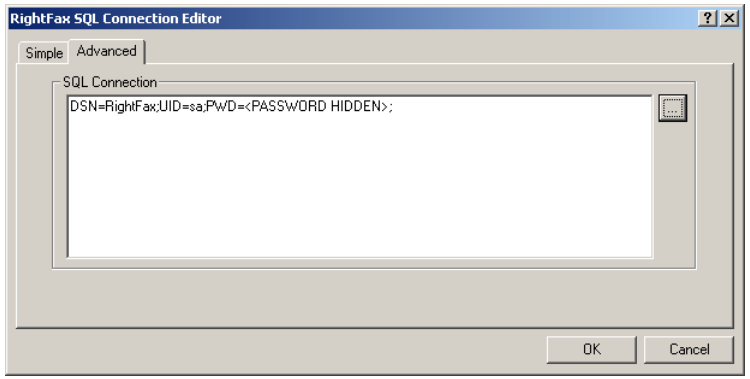
During installation, the fax server automatically creates a system DSN called "RightFax." If you have created a new system DSN to define the database connection, you can select it here.

You can also click the **[...]** button to open a list of available DSNs. The fax server requires a system DSN which must be properly configured to point to the SQL server where the fax database is installed.

Login with Windows NT authentication using the network login ID Select this option if you want the fax server to log on to the SQL server using NT network authentication. For information on configuring network authentication to the SQL server, see the following section "Configuring Windows Authentication to the SQL Server".

Login with SQL Server authentication using the following information Select this option to log on to the SQL server using a SQL user account. Enter the SQL login ID and password.

Figure 29.3 The RightFax SQL Connection Editor *Advanced* tab



The **Advanced** tab on this dialog box displays an editable connection string that defines the server's connection to the SQL database. You can manually configure the SQL connection here, however, unless you are familiar with the syntax of connection strings, it is recommended that you instead use the options on the **Simple** tab to make any changes to your server's SQL connection.

Changing the SQL connection in the registry

After you have set the correct SQL connection in both the RightFax Server and DocTransport applications, open the Windows Registry Editor. Navigate to HKEY_LOCAL_MACHINE\SOFTWARE \RightFax\Production\INL. Edit the value DSN in this key and change the data to the connection string you set in the Server and DocTransport modules.

Configuring Windows Authentication to the SQL Server

The RightFax server can be configured to authenticate to the SQL server using the server's network login ID.

To configure the RightFax server to use NT authentication on the SQL server

1. Run the RightFax Server Configuration program from Windows Control Panel and click the **Advanced** tab.
2. Click the **[...]** button to the right of the **SQL Connection** box. This opens the **RightFax SQL Connection Editor** dialog box.
3. On the **Simple** tab, click the **[...]** button to the right of the **ODBC Data Source** box. This opens the **RightFax SQL Connection Editor** dialog box. This opens the Windows **ODBC Data Source Administrator** program.
4. Click the **System DSN** tab, highlight the **RightFax** DSN, and click **Configure**. This runs the **Microsoft SQL Server DSN Configuration** wizard.
5. On the first screen, click **Next**.
6. On the second screen, select the option **With Windows NT authentication using the network Login ID**. No additional settings are required in this wizard.
7. Continue clicking **Next** until the **Microsoft SQL Server DSN Configuration** wizard is complete and closed, then close the **ODBC Data Source Administrator** program.
8. In the **RightFax SQL Connection Editor** dialog box, select the option **Login with Windows NT authentication using the network login ID**, and the click the **Select Service Account** button.
9. Enter or select a user account for the RightFax server to use when authenticating to the SQL server. This account must exist on the SQL server and have full read/write access. Click **OK**.
10. Click **OK** to save and exit the RightFax Server Configuration program.

Backing Up and Restoring the RightFax Server and Database

This section provides instructions for backing up and restoring the RightFax server software and SQL database using Microsoft's OSQL command-line utility. The OSQL utility is automatically installed on your SQL server when you install either the full version of SQL or the SQL Express database provided with the RightFax server software. Backing up the server requires a separate backup storage device or software utility. Captaris does not provide support for third-party backup tools, and so you should be familiar with your organization's software backup tools and protocols before scheduling regular backups.

Backing up and restoring the RightFax server

All of the RightFax server files can be backed up using any standard disk or tape backup system. A complete backup of the server can be performed at any time without shutting down the server or stopping the RightFax services. However, to ensure that

your backup software does not cause any disruption or slowdown of the RightFax server, Captaris recommends scheduling backups only at night or during off-peak hours.

To backup the RightFax server software, backup the \RightFax folder and all of its subfolders. Because several RightFax configuration settings are stored in the Windows Registry, Captaris recommends also backing up the following registry keys:

- HKEY_CLASSES_ROOT\RightFax
- HKEY_LOCAL_MACHINE\Software\RightFax
- HKEY_LOCAL_MACHINE\Software\RightFax Client

Refer to the documentation for your backup software and/or Microsoft Windows for information on scheduling and executing periodic backups of your software and the registry, and for information on restoring from the backup.

Caution *Because the bump codes that enable all of your licensed RightFax features are tied to the name of the computer on which the software is installed, you must call Captaris Support to obtain new bump codes if you restore the RightFax server to a machine other than the one on which it was originally installed.*

Backing up the RightFax database

RightFax stores most of its data in a SQL database which is stored and maintained separately from the core server software. Depending on how the RightFax server software was installed, this database may be on a separate SQL server on your network, or a SQL Express database installed directly on the RightFax server computer. To perform a backup of the RightFax database, you must know where this database is installed, and you must have a user ID and password with administrative access to the database.

Important *If you have upgraded from MSDE to SQL Server 2005 Express, the MSDB database has not been upgraded. Consequently, you may see error messages when attempting to run OSQL backup and restore procedures. These errors are cosmetic and do not cause any loss in functionality. For more information, see Microsoft Knowledge base article 907284.*

To back up the RightFax database using OSQL

1. Open a command prompt on the SQL server or on the RightFax server if you are using SQL Express.
2. Navigate to C:\Program Files\Microsoft SQL Server\MSSQL\Binn
3. Enter the command:

   osql -U*UserID* **-P***Password* **-H***ServerName*

   Where *UserID* is a SQL user ID with administrative access, *Password* is the password for the specified user, and *ServerName* is the machine name of the server where the database is located. (When SQL is installed, the default user ID is "sa" and the default password is blank.) Note that the commands and parameters are case-sensitive.

4. On the command line that follows, enter the following command set:

   BACKUP DATABASE rightfax TO DISK =
   '*C:\Backup***\rightfax.bak'** [Enter}
   go [Enter]
   exit [Enter]

   Where *C:\Backup* is the name of the folder where you want the backup file to be stored. This can be a local folder or a folder on any mapped drive on the network. The backup process may take several minutes, depending on the size of the database. Note that the commands and parameters are case-sensitive.

To create a batch file for automating the database backup

To automate the database backup at a scheduled time you can create a batch file which will execute the OSQL backup command, and then add the batch file to your Scheduled Tasks list in Windows Control Panel.

Caution *This batch file will overwrite any existing backup file in the target folder without prompting for confirmation.*

The batch file should contain only the following command:

osql -U*UserID* **-P***Password* **-H***ServerName* **-Q"BACKUP DATABASE rightfax TO DISK =** '*C:\Backup***\rightfax.bak'"**

Where *UserID* is a SQL user ID with administrative access, *Password* is the password for the specified user, *ServerName* is the machine name of the server where the database is located, and *C:\Backup* is the name of the folder where you want the backup file to be stored. (When SQL is installed, the default user ID is "sa" and the default password is blank.) Note that the commands and parameters are case-sensitive.

Restoring the RightFax Database

Follow these steps to restore the RightFax database from a backup:

1. Open a command prompt on the SQL server or on the RightFax server if you are using SQL Express.
2. Navigate to C:\Program Files\Microsoft SQL Server\MSSQL\Binn
3. Enter the command:

   osql -U*UserID* **-P***Password* **-H***ServerName*

   Where *UserID* is a SQL user ID with administrative access, *Password* is the password for the specified user, and *ServerName* is the machine name of the server where the database is located. (When SQL is installed, the default user ID is "sa" and the default password is blank.)
4. On the command lines that follow, enter this command set:

   RESTORE DATABASE rightfax FROM DISK =
   '*C:\Backup***\rightfax.bak'** [Enter}
   go [Enter]
   exit [Enter]

   Where *C:\Backup* is the name of the folder where the backup file was stored. The restore process may take several minutes, depending on the size of the database.

Purging Deleted Fax Records from the Database

RightFax stores records of all faxes, even if users have deleted the faxes from their fax mailboxes. When a user deletes a fax, the fax image is deleted, but the fax record is saved and marked as belonging to a deleted fax. This is how the fax server is able to run reports on fax activity even when the fax images have been deleted.

Removing deleted fax records from the database is called "purging." To keep the fax database to a manageable size, RightFax purges deleted fax records after a set length of time. The length of time fax records of deleted faxes are saved before being purged can be customized for each RightFax group.

To change the length of time RightFax keeps deleted fax records

1. Run Enterprise Fax Manager and click **Groups**.
2. Select the group ID to modify.
3. Click the **Basic Information** tab.
4. In the **Days to Keep Deleted Fax Records** box, enter the number of days to keep deleted fax records.

Purging Fax Records using DBPurge

DBPurge is database utility designed to purge fax records from the RightFax database. These records are listed and explained below.

- **Faxes** Deletes records of all faxes in the system
- **Deleted Faxes** Deletes records of deleted faxes from the database
- **Billing Codes** Deletes Billing Code entries from the database
- **Work Requests** Deletes queued Work Requests (notifications, Conversion jobs, print jobs, retries) from the database

Using DBPurge

1. Log in to the fax server as an administrator.
2. Open the \RightFax\Database folder and **double-click** DbPurge.exe.
3. On the **Open Server** dialog, enter the RightFax server name followed by your account name and password. This account must have administrative access. You may also choose the box to 'Use NT Authentication' is your RightFax account is linked to the account you are logged into your network with. Click **OK**.
4. On the left side of the DBPurge dialog, enter the records you wish to purge.
5. Select the **Preview** button to view the total number of records to be purged.
6. Click the **Purge** button to begin purging fax records.
7. Upon completion you can view a transaction log by clicking the **Log** tab.

Purging Faxes from Users' Fax Mailboxes

RightFax includes a feature called automatic fax aging that you can use to delete fax images from users' fax mailboxes after a certain length of time. This can prevent older fax images from occupying too much hard drive space on your server. Automatic fax aging is only available if you have a RightFax Enterprise or Satellite server. This feature is configured separately for each group (see "The Automatic Fax Aging tab" on page 139). Individual users can be excluded from automatic fax aging by checking the **Excluded from Group Fax Aging** permission in their RightFax user profiles (page 126).

Removing Orphaned Faxes

Warning *You must shut down all of the RightFax services before running* orphan.exe.

Orphan.exe searches the RightFax server for fax image files that do not have any references in the RightFax database. The image files are called "orphans" because RightFax has no record of their existence and cannot access them. Using Orphan.exe, orphan image files can be deleted from the server, or their records can be restored in the RightFax database.

Orphan.exe is located in the RightFax\Database folder on the RightFax server. The fax server must not be running when executing this utility.

Syntax **orphan -f***computer* **-i"***path"* **-u***userID* [**-a**] [**-n**] [**-z**]

Table 29a Orphan.exe Command Line Options

Option	Function
-a	Restore all orphan image files to a specified RightFax user. Requires the -f and -u options.
-f*computer*	Specify the name of the RightFax computer that contains the user ID that will be assigned the recovered fax images.
-i*path*	Specify the full path to the RightFax\Image folder. You must include the double-quotes around the path.
-n	Skip all prompts.
-u*userID*	Specify the RightFax user ID that will be assigned the recovered fax images.
-z	Erase orphan file images from the disk.

Example orphan -fjanescomputer -i"c:\program files\rightfax\image" -ujanedoe -a

Using the RightFax Administrative Utilities

Several additional software tools for RightFax called administrative utilities" are available and can be downloaded and installed separately from the RightFax server software. For information on downloading, installing, and running these additional administrative utilities, visit the downloads section for this version of RightFax at www.captaris.com.

Supported Database Collation

The RightFax 9.3 database supports only the SQL **Language** collation. **Case sensitivity**, **Accent sensitivity** and **Kana sensitivity** collations are not supported.

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Appendix A

RightFax Embedded Codes

Embedded codes are special faxing instructions that you insert directly into fax-bound documents. You can use embedded codes to address faxes, include fax cover sheet information, attach library documents, add billing information, insert your signature, and more.

To add an embedded code to a document, type the code you want, along with any required parameters, between angle brackets. For example, an embedded code that tells RightFax the destination fax number is written as:

<TOFAXNUM:555-1212>

The fax server removes all embedded codes from a document when it converts the document to fax form, so they don't appear in your final fax. Embedded codes can be written in either upper or lower case. If you type an embedded code incorrectly, it will not behave as expected and the embedded code text itself will appear in your fax.

Embedded codes can be placed anywhere in the document that you will be faxing, and can be used in any document that accepts text characters. Embedded codes cannot line wrap and any embedded code statement that is so long that it wraps to a second line will be ignored.

Embedded codes that are followed by this envelope icon ( ) are compatible with RightFax e-mail gateways.

Note *If you send faxes via an SMTP gateway and plan to use embedded codes, then you must select the* ***Use PCL converter for text files*** *option in your e-mail configuration.*

ADDDOC

Format **<ADDDOC:***file***>**

Adds a file to the end of the fax. The specified file is not deleted after conversion. This additional file can be in one of over 45 of the most popular IBM and Macintosh native application file formats. If you have licensed the RightFax PDF module, you can also attach PostScript and PDF files. For a complete list of supported formats, see Appendix B, "File Formats that Convert to Fax Format".

Specify the complete file path, including file name, extension, drive, and directory, and ensure that RightFax has access privileges. Captaris recommends using the UNC to specify the file location (instead of a drive letter), because the mapping or drive links may be different on the fax server and the computer where the fax originated.

More than one ADDDOC code can appear in a document. Each file will be appended in the sequence that the embedded code appears in the document.

Maximum field length: N/A.

Examples <adddoc:x:\bin\xyz.tif>
<adddoc:\\server8\sys\bin\xyz.tif>

ADDDOC2

Format **<ADDDOC2:*file*>**

Replaces the document it is found in with the specified file. The specified file is then deleted after it is faxed. This file can be in one of over 45 of the most popular IBM and Macintosh native application file formats. If you have licensed the RightFax PDF module, you can also attach PostScript and PDF files. For a complete list of supported formats, see Appendix B, "File Formats that Convert to Fax Format".

Specify the complete file path, including file name, extension, drive, and directory. Captaris recommends using the UNC to specify the file location (instead of a drive letter), because the mapping or drive links may be different on the fax server and the computer where the fax originated.

Maximum field length: N/A.

Examples <adddoc2:x:\bin\123.tif>
<adddoc2:\\server8\sys\bin\123.tif>

ADDDOC3

Format **<ADDDOC3:*file*>**

Adds another file to the end of the fax. The specified file will be deleted after conversion. This additional file can be in one of over 45 of the most popular IBM and Macintosh native application file formats. If you have licensed the RightFax PDF module, you can also attach PostScript and PDF files. For a complete list of supported formats, see Appendix B, "File Formats that Convert to Fax Format".

Specify the complete file path, including file name, extension, drive, and directory. Captaris recommends using the UNC to specify the file location (instead of a drive letter), because the mapping or drive links may be different on the fax server and the computer where the fax originated.

Maximum field length: N/A.

Examples <adddoc3:x:\bin\xyz.tif>
<adddoc3:\\server8\sys\bin\xyz.tif>

ADDDOC4

Format **<ADDDOC4:*file*>**

Replaces the document it is found in with the specified file. This file can be in one of over 45 of the most popular IBM and Macintosh native application file formats. If you have licensed the RightFax PDF module, you can also attach PostScript and PDF files. For a complete list of supported formats, see Appendix B, "File Formats that Convert to Fax Format".

Specify the complete file path, including file name, extension, drive, and directory. Captaris recommends using the UNC to specify the file location (instead of a drive letter), because the mapping or drive links may be different on the fax server and the computer where the fax originated.

Maximum field length: N/A.

Examples <adddoc4:x:\bin\xyz.tif>
<adddoc4:\\server8\sys\bin\xyz.tif>

ATDATE

Format **<ATDATE:*date*>**

Schedules the fax to send on a specific date. Dates can be expressed as relative or absolute. Relative dates give the number of days from today's date. For example, "+7" represents one week

from today. Absolute dates specify the exact date to send the fax. Absolute dates must be written in one of these formats: MM/DD/YY, MM-DD-YY, or MM-DD-YYYY.

If no send time is specified with the <ATTIME> code (page 311), the send time defaults to "now" (the current time of processing). For example, if a fax is sent to the queue at 3:30 p.m. and it contains only an <ATDATE:+1> code, it will be scheduled to send at 3:30 p.m. tomorrow.

Maximum field length: 10 characters

Examples <ATDATE:9-15-99>
<ATDATE:+2>

ATTIME

Format **<ATTIME:*time*>**

Schedules the fax to send at a specific time. The time can be relative or absolute.

Relative time is the number of hours or minutes from the current time. For example, "+2" is two hours from now. You can enter fractions of an hour in six-minute increments. Valid fractions of an hour are 0.1 through 0.9. You must enter at least one digit before and after the decimal point. For example, 1.5 and 0.3 are valid, and 1.50 and .3 are not valid.

Absolute time can be entered in 12-hour or 24-hour format. A colon separating hours and minutes is optional, and an "a" or "p" can be used to indicate A.M. or P.M. The fax server does not send the fax at exactly the minute specified. Rather, the fax becomes eligible for scheduling within 15 minutes of the specified time.

Specifying a time between the current time and midnight will schedule the fax to send today. Specifying a time earlier than the current time will schedule the fax tomorrow.

Maximum field length: 9 characters

Examples <ATTIME:10:00p>
<ATTIME:+2>

BILLINFO1

Format **<BILLINFO1:*code*>**

Assigns a billing code to the fax. If the RightFax administrator has set up the system to require billing codes, you must enter a valid billing code or the fax will not be sent.

Maximum field length: 15 characters

Example <BILLINFO1:4444>

BILLINFO2

Format **<BILLINFO2:*code*>**

Assigns a second billing code to the fax. If the RightFax administrator has set up the system to require billing codes, you must enter a valid billing code or the fax will not be sent.

Maximum field length: 15 characters

Example <BILLINFO2:5555>

BREAK

Format **<BREAK>**

Breaks a single fax document into multiple faxes with multiple recipients. The break occurs at the point where the <BREAK> code is encountered. Each separate fax in the document must contain its own fax recipient information using the <TO_NAME> and <TO_FAXNUM> embedded codes.

When RightFax encounters the <BREAK> embedded code, it automatically flushes any existing print formatting information that was contained in the file's print header. Because of this, the <BREAK> code should be used only with ASCII files that do not have print headers associated with them (such as batch files).

Maximum field length: N/A.

BROADCAST

Format <BROADCAST>

Fine-tunes the server for sending fax broadcasts to multiple recipients. Include this embedded code in the fax to eliminate unnecessary server processes and increase the speed at which a broadcast is sent. Using the <BROADCAST> code increases the interval at which the server polls for and returns status information. In addition, the server will not process requests for notification or automatic printing of sent faxes. However, the server will still automatically print failed faxes, if that option is selected.

Maximum field length: N/A.

CHANNEL

Format <CHANNEL:*channel#*>

Sends the fax only on the specified channel of the fax board. This code is useful if your organization uses one channel for priority faxing, and you want the fax to go out right away. You can also use this code to limit fax broadcasts to one channel only, leaving the other channels free for priority faxing.

Although your server's first fax channel is listed as number 0 (zero) in the RightFax BoardServer module, a value of 0 in this embedded code indicates that the server should use any available channel. For this reason, any channel you specify in this embedded code must be numbered one higher than the channel as it is listed in the BoardServer (i.e., specify <CHANNEL:5> to use channel 4 as displayed in the RightFax BoardServer. The BoardServer's channel 4 is actually the fifth channel since channels begin numbering at zero.)

Maximum field length: N/A

Example <CHANNEL:3>

COMPLETEEVENT

Format <COMPLETEEVENT>

Enables complete events that can be serviced via the RightFax API. The new events are useful when writing code to send the status of the fax to a user, to a database, or to a host application.

Maximum field length: N/A.

COVER

Format <COVER>

Generates a RightFax cover sheet for the fax containing the code. If the user sending the fax containing this code is configured to automatically generate a cover sheet, only one cover sheet will be generated.

Unless a cover sheet file name is specified using the <FCSFILE> embedded code (page 313), this code will use the default cover sheet file.

Maximum field length: N/A

DELETE

Format <DELETE>

Deletes the fax from the user's FaxUtil mailbox after it has been successfully sent. This code overrides the default RightFax auto-delete setting.

Maximum field length: N/A

DELETEALL

Format <DELETEALL>

Deletes the fax from the user's FaxUtil mailbox after it has been sent, whether or not the send was successful. This code overrides the default RightFax auto-delete setting.

Maximum field length: N/A

DELETEFIRSTPAGE

Format **<DELETEFIRSTPAGE>**

Removes the first page of the fax. Use this code when you want to put all production embedded codes on the first page of a document, but not send that page to the recipient. This code is typically used when it is easier to add a page to the front of a document than to insert production embedded codes into the print stream coming from the host.

Maximum field length: N/A.

DELETELASTPAGE

Format **<DELETELASTPAGE>**

Removes the last page of the fax. Use this code when you want to put all production embedded codes on the last page of a document, but not send that page to the recipient. This code is typically used when it is easier to add a page to the end of a document than to insert production embedded codes into the print stream coming from the host.

Maximum field length: N/A.

FCSFILE

Format **<FCSFILE:***filename***>**

Uses the specified file as the RightFax-generated cover sheet. The cover sheet file must exist in the RightFax\FCS folder on the RightFax server and must end with the extension .pcl. Do not specify a directory path.

Maximum field length: 12 characters

Example <FCSFILE:MYCOVER1.PCL>

FINE

Format **<FINE>**

Converts the body of the fax using "fine" resolution (200 × 200 DPI). This is recommended only for faxes with detailed graphics or faxes that will be OCRed. This code overrides the default fax resolution set in the user's FaxUtil mailbox.

Maximum field length: N/A

FORMTYPE

Format **<FORMTYPE:***formID***>**

Overlays the fax onto the specified RightFax form.

Maximum field length: 15 characters

Example <FORMTYPE:LETTERHEAD>

FROMFAXNUM

Format **<FROMFAXNUM:***faxnumber***>**

Specifies the sender's fax number on the RightFax-generated fax cover sheet. If no cover sheet is generated by RightFax, this code will be ignored.

Maximum field length: 31 characters

Example <FROMFAXNUM:(520)555-1234>

FROMGENFAXNUM

Format **<FROMGENFAXNUM:***faxnumber***>**

Specifies the company's general fax number to be placed on the RightFax-generated fax cover sheet. If no cover sheet is generated by RightFax, this code will be ignored.

Maximum field length: 31 characters

Example <FROMGENFAXNUM:(520)555-2345>

FROMGENPHONE

Format **<FROMGENPHONE:*phonenumber*>**

Specifies the company's general phone number to be placed on the RightFax-generated fax cover sheet. If no cover sheet is generated by RightFax, this code will be ignored.

Maximum field length: 31 characters

Example <FROMGENPHONE:(520)555-3456>

FROMNAME

Format **<FROMNAME:*name*>**

Specifies the sender's name to be placed on the RightFax-generated fax cover sheet. If no cover sheet is generated by RightFax, this code will be ignored.

Maximum field length: 59 characters

Example <FROMNAME:Jane Doe>

FROMPHONE

Format **<FROMPHONE:*phonenumber*>**

Specifies the sender's phone number to be placed on the RightFax-generated fax cover sheet. If no cover sheet is generated by RightFax, this code will be ignored.

Maximum field length: 31 characters

Example <FROMPHONE:(520)555-4567>

IGNORE

Format **<IGNORE>**

Causes all subsequent embedded codes to be ignored.

Maximum field length: N/A

LIBDOC

Format **<LIBDOC:*documentID*>**

Sends the specified RightFax library document instead of sending the document containing the code. Multiple library documents can be specified, each as a separate LIBDOC code.

Important *When used with e-mail gateways, this embedded code will function exactly the same as LIBDOC2.*

Maximum field length: 21 characters

Example <LIBDOC:INFOPACK1>

LIBDOC2

Format **<LIBDOC2:*documentID*>**

Sends the specified RightFax library document in addition to sending the document containing the code. Multiple library documents can be specified, each as a separate LIBDOC2 code.

Maximum field length: 21 characters

Example <LIBDOC2:INFOPACK1>

NEWDEST

Format **<NEWDEST>**

Tells RightFax that you want to send this fax document to multiple recipients. The <NEWDEST> code must appear after each and every destination, including the last one. The <NEWDEST> code only allows the following codes to be repeated in a document:

- TO_NAME
- TO_FAXNUM
- TO_CONTACTNUM
- TO_COMPANY
- TO_CITYSTATE
- BILLINFO1
- BILLINFO2

If <NEWDEST> is not used, only the last occurrence of any of these embedded codes will take affect.

This code is not used to break one document into multiple faxes, but rather faxes one entire document to multiple recipients.

Maximum field length: N/A

Examples

<TO_NAME:JOHN><TO_FAXNUM:555-1234><NEWDEST>
<TO_NAME:MARY><TO_FAXNUM:230-5000><NEWDEST>

NEWLIB

Format **<NEWLIB:***libdocID*,*description***>**

Automatically creates or updates a library document from the document containing the code. Specify a new or existing library document ID and description. If the specified document ID already exists, that library document will be replaced. If no matching document ID exists, a new library document will be created. The newly created library document will automatically be assigned LAN accessibility only.

Maximum field length: N/A.

Example <NEWLIB:novpricesheet,november_prices>

NEWLIB2

Format **<NEWLIBW:***libdocID*,*description*,*LFWC***>**

Automatically creates or updates a library document from the document containing the code. Specify a new or existing library document ID and description. If the specified document ID already exists, that library document will be replaced. If no matching document ID exists, a new library document will be created. In addition, you can assign accessibility attributes for each document. The library document will automatically be assigned accessibility rights based on the following flags:

- L = LAN
- F = Fax on Demand
- W = Web
- C = Catalog

Maximum field length: N/A.

Example <NEWLIBW:novpricesheet,november_prices,LFWC>

NOBODY

Format **<NOBODY>**

Tells RightFax to send only the cover sheet, and not include a fax body document. Any embedded codes in the document that are not used for the production of the cover sheet will be ignored.

Maximum field length: N/A

NOCOMPLETEEVENT

Format <NOCOMPLETEEVENT>

Disables complete events. For more information, see "COMPLETEEVENT" on page 312.

Maximum field length: N/A.

NOCOVER

Format <NOCOVER>

Turns off automatic RightFax cover sheet generation for the document containing this code.

Maximum field length: N/A

NORMAL

Format <NORMAL>

Converts the body of the fax using "normal" resolution (200×100 DPI). Normal resolution faxes can be transmitted much faster than fine resolution faxes, saving time and phone charges. This code overrides the default fax resolution set in the user's FaxUtil mailbox.

Maximum field length: N/A

NOSMARTRESUME

Format <NOSMARTRESUME>

Disables the Smart-resume feature.

Maximum field length: N/A

NOTE

Format <NOTE:*text*>

Adds comments to your cover sheet. You can use as many as 21 <NOTE> codes in a single document if you want to enter multi-line comments. The comments will not be reformatted or line wrapped by RightFax.

Maximum field length: Up to 21 <NOTE> codes per document, each code having up to 69 characters.

Example <NOTE:THE QUICK BROWN FOX JUMPS OVER THE>
<NOTE:LAZY DOG.>

NOTIFY_ERROR

Format <NOTIFY_ERROR>

Notifies the sender when the fax is abandoned due to transmission errors using the **Notification Info** setting in the user's RightFax user account.

Maximum field length: N/A

NOTIFY_OK

Format <NOTIFY_OK>

Notifies the sender upon successful transmission of the fax using the **Notification Info** setting in the user's RightFax user account.

Maximum field length: N/A

NOTIFY_RETRY

Format <NOTIFY_RETRY>

Notifies the sender when a transmission error is encountered and the fax is being resent. This uses the **Notification Info** setting in the user's RightFax user account.

Maximum field length: N/A

PREVIEW

Format **<PREVIEW>**

Holds the fax for preview in your FaxUtil mailbox. You must view the fax in FaxUtil and select **Release** from the **File** menu before it will send.

Maximum field length: N/A

PRIORITY

Format **<PRIORITY:***priority***>**

Sets the priority of the outgoing fax. Allowed settings are: Low (L), Normal (N), and High (H). If a user specifies high priority and does not have the "Can use high priority" permission, the fax will be sent with "normal" priority.

Maximum field length: N/A

Examples <PRIORITY:HIGH>
<PRIORITY:N>
<PRIORITY:LOW>

RETRYCOUNT

Format **<RETRYCOUNT:#>**

Specifies the number of times the fax will be retried after encountering transmission errors (such as a busy signal or human answered line). A value of 0 (zero) tells the fax server to use the system defaults.

Maximum field length: 2 numeric digits

Example <RETRYCOUNT:3>

RETRYINTERVAL

Format **<RETRYINTERVAL:#>**

Specifies the length of time in minutes between retry attempts when transmission errors (such as a busy signal or human answered line) are encountered.

Maximum field length: 2 numeric digits

Example <RETRYINTERVAL:2>

SAVE

Format **<SAVE>**

Instructs RightFax to not delete the fax image from the user's FaxUtil mailbox after being sent. This overrides any default auto-delete setting.

Maximum field length: N/A

SIGNATURE

Note *Signature files are currently not supported in outbound PDF documents.*

Format **<SIGNATURE:***signatureID***>**

Specifies a signature image to place in the document. The signature will be inserted into the document at the exact location of the <SIGNATURE> embedded code. You can include an unlimited number of <SIGNATURE> codes in each document. If you are not listed as an authorized user of the signature file, the fax will be failed by the fax server. For information on creating and using signature files, see Chapter 11, "Creating Signatures".

Maximum field length: 21 characters

Example <SIGNATURE:BOB>

SMARTRESUME

Format <**SMARTRESUME**>

Enables the Smart-resume feature.

Maximum field length: N/A

TOALTFAXNUM

Format <**TOALTFAXNUM:***faxnumber*>

Specifies an alternate fax number that will be tried if the server is unable to send the document to the primary fax number see "TOFAXNUM" on page 318.

Maximum field length: 31 characters

Example <TOALTFAXNUM:520-555-1212>

TOCITYSTATE

Format <**TOCITYSTATE:***city, state*>

Specifies the fax recipient's city and state information for display on the cover sheet. This code can include not only the city and state of the recipient, but the full street address as well.

Maximum field length: 59 characters

Example <TOCITYSTATE:TUCSON, AZ>

TOCOMPANY

Format <**TOCOMPANY:***company*>

Specifies the fax recipient's company name for display on the cover sheet.

Maximum field length: 59 characters

Example <TOCOMPANY:ACME, INC.>

TOCONTACTNUM

Format <**TOCONTACTNUM:***phonenumber*>

Specifies the fax recipient's voice number for display on the cover sheet.

Maximum field length: 31 characters

Example <TOCONTACTNUM:520-555-1212>

TOFAXNUM

Format <**TOFAXNUM:***faxnumber*>

Specifies the fax recipient's fax number for dialing and also for display on the cover sheet.

Maximum field length: 31 characters

Example <TOFAXNUM:520-555-1212>

TONAME

Format <**TONAME:***name*>

Specifies the fax recipient's name for display on the cover sheet. If the name matches one of your individual or group RightFax phonebook entries, RightFax uses the corresponding fax addressing information to send the fax. To use an entry from another user's RightFax phonebook, use the syntax:

UserID!*Entry*

Only published entries of other RightFax users can be referenced this way.

Maximum field length: 59 characters

Example <TONAME:JANE DOE>

UNIQUEID

Format **<UNIQUEID:*faxID*>**

Specifies a unique ID for the fax instead of having one automatically generated by RightFax. Custom unique IDs can be used for external document tracking systems.

Maximum field length: 15 characters

Example <UNIQUEID:XYZ120396>

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Appendix B

File Formats that Convert to Fax Format

The following table lists the software applications and document file formats that can be converted to faxes by the built-in conversion engine on the RightFax server. Only these file types can be converted from their native format by sending as file attachments to a fax message or by using the Send To function in Windows.

Table B1 Supported Document File Formats

Application or file format	Supported versions
ANSI text (7 & 8 bit)	All versions
ASCII text (7 & 8 bit)	All versions
Binary group 3 fax	All versions
BMP (including RLE, ICO, CUR, and OS/2 DIB & OS/2 Warp)	Windows versions
CDR (if TIFF image is embedded in it)	Corel Draw versions 2.0 through 9.0
DCX (multi-page PCX)	Microsoft Fax
DRW (Micrografx Designer)	Version 3.1
DRW (Micrografx Draw)	Versions through 4.0
EPS	If TIFF image is embedded
Freelance for Windows	Version 1.0, 2.0, 96, 97, and Millennium

Table B1 Supported Document File Formats (Continued)

Application or file format	Supported versions
GIF	Compuserve
HTML	Versions through 3.0
JPEG (includes EXIF)	All versions
Lotus 1-2-3 (DOS & Windows)	Versions through 5.0
Lotus 1-2-3 (OS/2)	Versions through 2.0
Lotus 1-2-3 Charts (DOS & Windows)	Versions through 5.0
Lotus 1-2-3 Charts (OS/2)	Versions through 2.0
Lotus 1-2-3 for SmartSuite	SmartSuite 97, Millennium, and Millennium 9.6
Lotus AMI/AMI Professional	Versions through 3.1
Lotus Symphony	Versions 1.0, 1.1, and 2.0
Microsoft Binder	Version 7.0, Binder 97
Microsoft Excel Charts	Versions 2.x through 7.0
Microsoft Excel for Macintosh	Versions 3.0 through 4.0, 98, and 2001
Microsoft Excel for Windows	Versions 2.2 through 2003
Microsoft Multiplan	Version 4.0

Table B1 Supported Document File Formats (Continued)

Application or file format	Supported versions
Microsoft PowerPoint for Macintosh	Version 4.0, 98, and 2001
Microsoft PowerPoint for Windows	Versions through 2003
Microsoft Rich Text Format (RTF)	All versions
Microsoft Windows Works	Versions through 4.0
Microsoft Word for DOS	Versions through 6.0
Microsoft Word for Macintosh	Versions 4.0 through 2001
Microsoft Word for Windows	Versions through 2003
Microsoft WordPad	All versions
Microsoft Works for DOS	Versions through 2.0
Microsoft Works for Macintosh	Versions through 2.0
Microsoft Works for Windows	Versions through 4.0
Microsoft Write	Versions through 3.0
Novell WordPerfect for DOS	Versions through 6.1
Novell WordPerfect for Macintosh	Versions 1.02 through 3.0
Novell WordPerfect for Windows	Versions through 7.0
PCX bitmap	PC Paintbrush
PICT1 and PICT2 (Raster)	Macintosh standard
QuattroPro for DOS	Versions through 5.0
QuattroPro for Windows	Versions through 10
TIFF	Versions through 6
TIFF CCITT Group 3 & 4	Fax Systems

Table B1 Supported Document File Formats (Continued)

Application or file format	Supported versions
Unicode Text	All versions
UUEncode	No specific version
WordPerfect Graphics (WPG and WPG2)	Versions through 2.0
ZIP	PKWARE versions through 2.04g

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Appendix C

Error and Status Messages

A new fax has arrived for (user ID) from remote ID: (remote ID)

Another user has designated you to be their alternate for notification and they have received a new fax.

A new fax has arrived for (user ID) which hasn't been viewed or printed

A member of the group for which you are the RightFax administrator or alternate administrator has received a fax and has not viewed or printed it within one hour of receipt.

A new fax has arrived from remote ID: (remote ID)

You have received a new fax. You will continue to be notified for one hour (or other period specified by your administrator). If you do not view or print the fax, your group's administrator will be notified. If he does not print the fax, your group's alternate administrator will be notified.

An outgoing fax is ready for previewing

The fax you requested be held for preview has been processed by RightFax and is waiting in your FaxUtil mailbox. You must select **Release** from the **File** menu to start the sending process.

Answer tone detected

RightFax could not connect with the remote (receiving) fax machine due to communication errors between it and RightFax.

Bad FCS information

Incorrect information was entered on the cover sheet (via the **Fax Information** screen or embedded codes).

Bad formtype

You have specified a form that does not exist or is corrupt in the **Fax Information** screen or through embedded codes.

Bad phone number

You entered an incorrect or nonexistent fax phone number.

Bad signature code

The signature code is not recognized as a valid signature identifier because it is corrupt or does not exist.

Call answered before one full ring

RightFax did not receive a normal length ring-back signal from the phone company's central office.

Can't access scans

RightFax can't access the documents you scanned with the scanner.

Carrier not detected

RightFax did not detect a dial tone when it tried to dial out.

Command time exceeded

This is a timing related error, possibly when the fax card waits for or sends a command (T30 protocol handshaking commands) and doesn't get a response within a required period of time.

Command time too short

This is a timing related error, possibly when the fax card waits for or sends a command (T30 protocol handshaking commands) and doesn't get a response within a given period of time.

Command timeout

This is a timing related error, possibly when the fax card waits for or sends a command (T30 protocol handshaking commands) and doesn't get a response within a given period of time.

Communications line failure

The fax card was unable to make a valid connection with the remote machine.

Conversion failed

RightFax was unable to convert your document to Group III format.

Dial failure or no dial tone

RightFax cannot detect a dial tone because there is a problem with the phone line or the fax card is configured incorrectly.

Duplicate

The fax is a duplicate. It has been forwarded to you by another user.

Equipment busy tone detected

The remote (receiving) fax machine's phone line is busy.

Fax blocked from dialing phone number

One or more dialing rules disallow sending faxes to the specified phone number.

Fax discarded

RightFax deleted your fax job. Contact your administrator.

Fax number busy

RightFax has tried to send your fax the required number of times (default=5 times) and each time the phone number was busy.

Fax to (name) abandoned, too many retries

RightFax will try to successfully send your fax a specified number of times (determined by the administrator) then stop trying. The default value is five tries.

Fax to (name), (error)

Your outgoing fax encountered the error listed. (See the error listed for more information.)

FCS create failed

The cover sheet of your fax could not be created due to a corrupt or incompatible cover sheet format.

Function not implemented

An operation was attempted that is not currently supported by your fax card software.

G2 fax machine

You have attempted to send a fax to a Group II machine, rather than a Group III machine.

Held for preview

You have specified in the **Fax Information** screen or through embedded codes that you want to preview this fax before sending it. You must select **Release** from the **File** menu in FaxUtil to start the sending process.

Human answered

RightFax detected an unknown sound after it dialed the fax number. The unknown sound could be a human voice, recording, or line noise.

Illegal line number

You have attempted to send a fax on a fax channel that does not exist.

Illegal option in call

This error could occur if an invalid parameter is given for one of several different commands, including: LOG, DEBUG, XFER, SEND.

Illegal parameter value

This error could occur if an invalid parameter is given for one of several different commands, including: LOG, DEBUG, XFER, SEND.

Illegal sig. use

You have included a signature in your fax that you are not authorized to use.

Imaging error encountered, fax abandoned

RightFax was unable to convert your document to Group III format for transmission.

In conversion

RightFax is converting your document to fax format for transmission.

In validation

The signature and/or billing codes in your fax are being validated against the RightFax database.

Info not complete

You have not completed all the required fields (in the **Fax Information** screen or through embedded codes) for RightFax to send the fax.

Initial processing

RightFax is checking your document for embedded codes and counting the number of pages in your fax.

Invalid billing code

You have entered a billing code that is incorrect or does not exist.

Invalid embedded code

You have included a misspelled or nonexistent embedded code in your fax.

Line in use

RightFax was not able to send your fax because there were no outgoing phone lines available.

Loop current detected

When RightFax attempts to go off-hook to send a fax, it finds that the phone is already off-hook. This can occur when two devices are sharing a phone line and attempt to use it at the same time. It might also be a fax card configuration error.

Loop current failed

The fax card did detect current on the line, but did not detect a valid value for Loop Current.

Loop current not detected

The fax card was looking for Loop Current before it attempted to dial the fax number, but didn't find any.

Network congestion detected

The network may be running inefficiently and causing traffic, or an invalid fax number may have been dialed.

Network high and dry (no ring)

The fax card does not detect any type of telephone interface available. This is a very serious error. Contact your RightFax administrator immediately.

No answer at fax

The fax machine at the receiving end didn't answer or a wrong number was dialed.

No answer tone detected

The phone is ringing at the destination, but the fax machine is not answering within the specified time. This is especially prevalent in international calling when it can take up to a minute to connect to the remote station.

Non-G3 modem detected

RightFax has detected a non-Group III fax modem on the remote (receiving) fax machine, and cannot communicate with it.

OCR error

An error occurred while a document was being sent to or was at the Optical Character Recognition module of RightFax.

OCR in process

Your fax has been queued and is being processed by the OCR module.

OK

RightFax has successfully sent your fax over the phone lines. This does not guarantee successful receipt of the fax at its destination.

One of your outgoing faxes needs attention

You have not completed all the required fields in the **Fax Information** screen or through embedded codes for the fax to be sent.

P2 was not detected at the end of training

This is a training error indicating a performance problem with the fax server and the number of fax cards that it contains.

Phone line problems

There is a problem with the phone lines at the fax server.

Poor quality

There was too much line noise for the fax to be transmitted correctly. The fax may have been sent, but it may be difficult to read.

Printing

Your fax is printing.

Printing error

An error occurred while printing.

Protocol reject message

This is a generic protocol error code that could have several meanings. In general, your fax card is having difficulty talking to the remote fax machine because it is getting the signals it expected.

Protocol timeout

This is a generic protocol error code that could have several meanings. In general, your fax card is having difficulty talking to the remote fax machine because it is not getting the signals it expected in the appropriate time frame.

Queued for OCR

The fax has been queued and is waiting for the OCR module to convert it.

Queued for printing

The fax has been queued and is waiting to be printed.

Ringback signal detected

A ring-back signal was detected when it should not have been. This may be due to interrupting a call in process on a shared line, or could be caused by a lot of noise on a T1 phone line.

Ringback, but no answer tone

The phone rang at the destination, but it was never answered. This might be because the receiving fax machine is off-line or unable to receive faxes.

Ringback, then busy condition

The fax number dialed went off-hook and then went on-hook very quickly, generating a fast busy signal.

Scheduled for send

Your fax was successfully converted to the RightFax Group III format and is now being sent to the fax card to await sending. If you specified a date and time to send the fax, RightFax will wait to send it until then.

Scheduling failed

Your fax was converted correctly, but it couldn't be correctly queued to be sent.

Sending

RightFax is transmitting your fax.

Sending fax to (name) at (faxnumber)

Your fax is being sent to the name and fax number specified.

Sig needs authorization

You must be authorized to use the signature you have included in your fax.

Thermal record

You have recorded a fax that was sent or received on a conventional fax machine for database purposes only.

Training algorithm detected FSK

This training error indicates a performance problem with the fax server and the number of fax cards it contains.

Training algorithm found on PN

This training error indicates a performance problem with the fax server and the number of fax cards it contains.

Tx/Rx error

This transmission/reception error indicates that the receiving fax machine was experiencing difficulties or excessive line noise.

Unknown error

An error condition reported to RightFax from another device is not supported or not recognized.

Unknown error code

An error condition reported to RightFax from another device is not supported or not recognized.

Unknown status code

An unknown status code has been returned to RightFax from your fax card.

Voice response to call

RightFax detected a sound that it didn't expect after it dialed the fax number. The sound could be a human voice, recording, or line noise.

Waiting for conversion

RightFax is busy with another process and has queued your fax to be converted.

Waiting to be sent

The fax has not yet been scheduled for faxing.

Your fax has been successfully sent to (name) at (faxnumber)

Your fax was successfully sent over the phone lines. This does not guarantee successful receipt of the fax at its destination.

Your outgoing fax contains an invalid billing code

You have either not entered a required billing code, or entered one that does not exist.

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Appendix D

Alerting and Monitoring Statistics

The RightFax Alerting and Monitoring service (described in Chapter 17, "Using the Alerting and Monitoring Service") lets you monitor and receive alerts about several statistics relating to your RightFax server. These statistics are divided into categories (described in "Editing Alert Properties" on page 179). This appendix lists each category (specified in the **Category** box on the **Alert Properties** dialog box), and the statistics you can select for each category (specified in the **Statistics to monitor** box on the **Alert Properties** dialog box).

Each category is listed below with its corresponding statistics, including the definition of each statistic and whether an alert can be generated for that statistic. The statistic categories listed in this appendix are:

- "Fax Server Statistics" (page 329)
- "Database Statistics" (page 330)
- "Workserver Statistics" (page 332)
- "Gateway Statistics" (page 333)
- "Local BoardServer Statistics" (page 334)
- "All BoardServers Statistics" (page 337)
- "RPC Server Statistics" (page 338)
- "Paging Server Statistics" (page 338)

Fax Server Statistics

Table D1 Statistics available for the Fax Server category

Statistic	Description	Can trigger alert
Newest activity index	The total number of activities since the RightFax Server module was last started. Activities can be viewed using FaxStat.exe.	No
Information version	A version number indicating the level of information being displayed for the fax server.	No
Time running	The length of time since the Fax Server service was last started.	No
Maximum events in queue	The current maximum size of the event queue (described on page 33).	No
Events in queue	The number of events waiting to be processed by the fax server.	No
Events processed	The total number of events processed by the fax server since the Fax Server module was started.	No

Table D1 Statistics available for the Fax Server category (Continued)

Statistic	Description	Can trigger alert
Number of activity records	The total number of activity records currently stored by the RightFax Server module. Activities can be viewed using FaxStat.exe.	No
Percentage of disk space available on image drive	The percentage of free drive space on the drive used for storing fax images,	Yes
Percentage of disk space available on database drive	The percentage of free drive space on the drive used for storing the RightFax database,	Yes
Activity	The time and description of the specified activity number.	No
Total timed events by type	Total number of timed events in the Fax Server event queue (described on page 33). Specify the type of timed event in the **Event Timer** box.	No
Ticks remaining by type	Time remaining before the Fax Server module fires a specified timed event. Specify the type of timed event in the **Event Timer** box.	No

Table D1 Statistics available for the Fax Server category (Continued)

Statistic	Description	Can trigger alert
Frequency of timed events by type	The frequency with which a timed event will be fired, measured in ticks. Specify the type of timed event in the **Event Timer** box.	No
Current frequency relative to original as percentage	For events whose timing is dynamically scalable depending on fax server activity, this is the current frequency measured as a percentage of the normal frequency. Specify the type of timed event in the **Event Timer** box.	No

Database Statistics

Table D2 Statistics available for the Database category

Statistic	Description	Can trigger alert
Information version	A version number indicating the level of information being displayed for the RightFax database.	No
Number of database threads	Total number of threads that the Database module has managing database queries and changes.	No
Number of file I/O threads	Total number of threads that the Database module has managing files.	No

Table D2 Statistics available for the Database category (Continued)

Statistic	Description	Can trigger alert
Time running	The length of time since the Database service was last started.	No
Database server thread info	This statistic is reserved for future use.	No
File I/O thread info	This statistic is reserved for future use.	No
Current Database operation	The current database activity by thread.	No
Last Database command	Last RightFax API command performed on the database by thread.	No
Number of Database read failures	The total number of errors that have occurred during the read process since the Database module was last started.	Yes
Number of Database write failures	The total number of errors that have occurred during the write process since the Database module was last started.	Yes
Client Database I/O type	This statistic is reserved for future use.	No
Total Database bytes read	The total number of bytes read from the database since the Database module was last started.	No
Total Database bytes written	The total number of bytes written to the database since the Database module was last started.	No

Table D2 Statistics available for the Database category (Continued)

Statistic	Description	Can trigger alert
Total Database commands processed	Total number of API commands performed by the database since the Database module was last started.	No
Time last Database command took	The length of time for the last database command to be processed.	Yes
User ID of last Database command	The NT user account used for the last database command.	No
Current File I/O operation	The current file activity by thread.	No
Last File I/O command	The last file I/O API command performed on the database by thread.	No
Number of File I/O open failures	The total number of failed file open commands by thread since the database module was started	Yes
Number of File I/O read failures	The total number of failed file read commands by thread since the database module was started	Yes
Number of File I/O write failures	The total number of failed file write commands by thread since the database module was started	Yes
Client File I/O type	This statistic is reserved for future use.	No
Total File I/O bytes read	The total number of bytes read from files by thread	No

Table D2 Statistics available for the Database category (Continued)

Statistic	Description	Can trigger alert
Total File I/O bytes written	The total number of bytes written to files by thread	No
Total File I/O commands processed	The total number of API commands performed for file I/O since the Database module was last started.	No
Time last File I/O command took	The length of time for the last file I/O command to be processed.	Yes

Workserver Statistics

Table D3 Statistics available for the WorkServer category

Statistic	Description	Can trigger alert
Information version	A version number indicating the level of information being displayed for the WorkServer.	No
Newest activity index	The total number of activities since the RightFax WorkServer module was last started. Activities can be viewed using FaxStat.exe.	No
Archival requests processed	The total number of fax archive functions since the WorkServer module was started.	No
Conversion requests processed	The total number of fax conversions since the WorkServer module was started.	No

Table D3 Statistics available for the WorkServer category (Continued)

Statistic	Description	Can trigger alert
CVL conversion requests processed	The total number of CVL things since the WorkServer module was started.	No
Delete requests processed	The total number of deleted faxes since the WorkServer module was started.	No
File route requests processed	The total number of faxes routed to network directories since the WorkServer module was started.	No
OCR requests processed	The total number of faxes that have been converted to text since the WorkServer module was started.	No
Overlay requests processed	The total number of overlay forms generated since the WorkServer module was started.	No
Print requests processed	The total number of printed faxes since the WorkServer module was started.	No
Postscript conversion requests processed	The total number of fax conversion using Postscript since the WorkServer module was started.	No
Network broadcast requests processed	The total number of network messaging events using Postscript since the WorkServer module was started.	No

Table D3 Statistics available for the WorkServer category (Continued)

Statistic	Description	Can trigger alert
InterConnect requests processed	The total number of faxes routed to other RightFax servers on the network via InterConnect since the WorkServer module was started.	No
Time running	The length of time since the WorkServer service was last started.	No
Activity records	The total number of activity records currently stored by the RightFax WorkServer module. Activities can be viewed using FaxStat.exe.	No
Last request	The last work request processed by the WorkServer	No
Time for last command	The length of time required to complete the last command	Yes
Queues being serviced	The services that are being managed by the selected WorkServer.	No
Activity	The time and description of the specified WorkServer activity number.	No
Time spent on current command	The length of time that the WorkServer has spent processing the current command	Yes

Gateway Statistics

Table D4 Statistics available for the Gateway category

Statistic	Description	Can trigger alert
Information version	A version number indicating the level of information being displayed for the gateway.	No
Gateway type	The type of e-mail system that the gateway supports.	No
Newest activity index	The total number of activities since the RightFax Gateway module was last started. Activities can be viewed using FaxStat.exe.	No
Activity records	The total number of activity records currently stored by the RightFax Gateway module. Activities can be viewed using FaxStat.exe.	No
Time running	The length of time since the E-mail Gateway service was last started.	No
Events processed	The total number of events processed by the fax server since the Gateway module was started.	No
Activity	The time and description of the specified activity number.	No

Local BoardServer Statistics

Table D5 Statistics available for the Local BoardServer category

Statistic	Description	Can trigger alert
Information version	A version number indicating the level of information being displayed for the local BoardServer.	No
Time running	The length of time since the local BoardServer service was last started.	No
Num channels	Total number of fax channels supported by the local BoardServer.	No
Send queue depth	Total number of faxes currently waiting to be transmitted.	Yes
Send pages depth	Total number of fax pages currently waiting to be transmitted.	Yes
Availability index	The relative availability of the server's fax boards. The higher the number, the more available the server for sending faxes. RightFax uses this value when an outgoing fax number has two equally weighted dialing rules that send it to two different servers. In such a case, RightFax sends the fax via the server with the highest availability index.	Yes
Channel type	Displays whether the specified channel uses a loop-start or DID line.	No
Capabilities	Displays whether the specified channel is set to send faxes, receive faxes, or both.	No
Routing code	The routing code of the fax currently being received on the specified channel.	No
State	The current sending or receiving state of the specified channel.	No
Current page	The page number of the fax currently being sent or received on the specified channel.	No
Total pages sent	The total number of fax pages sent on the specified channel since the BoardServer was last started.	No
Total pages received	The total number of fax pages received by the specified channel since the BoardServer was last started.	No
Total calls answered	The total number of incoming calls picked up by the specified channel since the BoardServer was last started.	No
Total calls placed	The total number of outgoing calls placed by the specified channel since the BoardServer was last started.	No

Table D5 Statistics available for the Local BoardServer category (Continued)

Statistic	Description	Can trigger alert
Total hang ups	The total number of incoming calls on the specified channel that received a transmission error due to hang up since the BoardServer was last started.	No
ROM ID	The ROM ID of the fax board used by the specified fax channel.	No
Current remote ID	The remote ID of the currently sending or receiving phone line.	No
Is currently sending	Indicates whether the specified fax channel is currently sending a fax.	No
Is currently doing TeleConnect	Indicates whether the specified fax channel is currently doing TeleConnect.	No
Is currently receiving	Indicates whether the specified fax channel is currently receiving a fax.	No
Is currently doing Docs on Demand	Indicates whether the specified fax channel is currently doing Docs-on-Demand.	No
Group threshold left	The number of fax pages remaining before a fax grouping will be sent.	No
Group faxes	The current number of faxes that are grouped for sending but have not yet reached the required number of pages.	No

Table D5 Statistics available for the Local BoardServer category (Continued)

Statistic	Description	Can trigger alert
Pages in call	Specifies the total number of fax pages queued to be sent during the current call.	No
Current rate	Specifies the transmission baud rate of the current call.	No
Current compression	Specifies the data compression type being used for the currently sent or received fax.	No
Estimated minutes left	The estimated number of minutes remaining for the specified channel to send the current fax.	No
Send info phone number	The sending phone number associated with the outbound fax currently being sent by the specified channel.	No
Send info user ID	The RightFax user ID associated with the outbound fax currently being sent by the specified channel.	No
Send info pages in fax	The number of pages in the outbound fax currently being sent by the specified channel.	No
Send info pages done	The number of pages that have already been transmitted for the fax currently being sent by the specified channel.	No
Send info to name	The intended recipient's name associated with the outbound fax currently being sent by the specified channel.	No

Table D5 Statistics available for the Local BoardServer category (Continued)

Statistic	Description	Can trigger alert
Send info to company	The intended recipient's company name associated with the outbound fax currently being sent by the specified channel.	No
Send info bill code 1	The first billing code value associated with the outbound fax currently being sent by the specified channel.	No
Send info bill code 2	The second billing code value associated with the outbound fax currently being sent by the specified channel.	No
Send info secure CSID	The required CSID of the receiving phone line associated with the outbound fax currently being sent by the specified channel.	No
Send info unique ID	The unique RightFax ID associated with the outbound fax currently being sent by the specified channel.	No
Current operation	The operation currently being performed by the specified channel.	No
Number of queued transmission checks	The number of Doc Plus faxes that need to have their status queried.	No
Activity counters start date	The start date that was set for the "all-time" statistics.	No

Table D5 Statistics available for the Local BoardServer category (Continued)

Statistic	Description	Can trigger alert
All time pages sent	The total number of fax pages that have been sent since the activity counter start date.	No
All time send attempts	The total number of fax transmission attempts since the activity counter start date.	No
All time pages received	The total number of fax pages that have been received since the activity counter start date.	No
All time faxes received	The total number of faxes that have been received since the activity counter start date.	No
All time pages sent remotely	The total number of fax pages that have been sent via remote fax servers since the activity counter start date.	No
All time send attempts remotely	The total number of fax transmission attempts via remote fax servers since the activity counter start date.	No
All time pages received remotely	The total number of fax pages that have been received from remote fax servers since the activity counter start date.	No
All time faxes received remotely	The total number of faxes that have been received from remote fax servers since the activity counter start date.	No

All BoardServers Statistics

Table D6 Statistics available for the All BoardServers category

Statistic	Description	Can trigger alert
Information version	A version number indicating the level of information being displayed for the BoardServers.	No
Number of board servers	The total number of BoardServer modules (local and remote) being accessed by the server.	No
Board server name	The computer name of the specified BoardServer.	No
Pipe name	The pipe used to communicate with the specified Boardserver.	No
Image directory	The directory used for storing fax images by the specified BoardServer.	No
Send queue depth	Total number of faxes currently waiting to be transmitted.	Yes
Send pages depth	Total number of fax pages currently waiting to be transmitted.	Yes
Number of channels	The total number of hardware channels on the specified BoardServer.	No
Is server down	Indicates whether the specified BoardServer service stopped.	Yes
Down time	The time at which the specified BoardServer service was stopped.	Yes
Down error	The error code that was generated when the specified BoardServer went down.	No
Is server local	Specifies whether the specified BoardServer is local or remote.	No
Unique ID	The unique RightFax ID for the specified BoardServer.	No
Availability index	The relative availability of the specified BoardServer's fax boards. The higher the number, the more available the server for sending faxes. RightFax uses this value when an outgoing fax number has two equally weighted dialing rules that send it to two different servers. In such a case, RightFax sends the fax via the server with the highest availability index.	Yes
Availability index time stamp	The time at which the Availability index was last reported.	No

RPC Server Statistics

Table D7 Statistics available for the RPC Server category

Statistic	Description	Can trigger alert
Information version	A version number indicating the level of information being displayed for the RPC server.	No
Last command	The last file I/O API command performed on the RPC server.	No
Open failures	The total number of file open failures since the RPC server was started.	Yes
Read failures	The total number of file read failures since the RPC server was started.	Yes
Write failures	The total number of file write failures since the RPC server was started.	Yes
Bytes read	The total number of bytes read since the RPC server was started.	No
Bytes written	The total number of bytes written since the RPC server was started.	No
Commands processed	The total number of API commands performed since the RPC server was started.	No
Time for last command	The length of time required to complete the last command.	Yes
Time running	The length of time since the RPC Server service was last started.	No

Paging Server Statistics

Table D8 Statistics available for the Paging Server category

Statistic	Description	Can trigger alert
Information version	A version number indicating the level of information being displayed for the Paging server.	No
Time running	The length of time since the Paging service was last started.	No
Send queue depth	Total number of pages waiting to be transmitted.	Yes
Pages sent via modem	Total pages sent via modem since the Paging service was started.	No
Pages sent via SMTP	Total pages sent via SMTP since the Paging service was started.	No
SMTP failures	Total number of failed SMTP connections since the Paging service was started.	Yes
Last SMTP fail code	The error code that was generated for the last failed SMTP connection.	Yes
Modem page failures	Total number of failed modem transmissions since the Paging service was started.	Yes
Last modem fail code	The error code that was generated for the last failed modem transmission.	Yes
Current SMTP server	The computer name or IP address of the current SMTP server.	No

Table D8 Statistics available for the Paging Server category (Continued)

Statistic	Description	Can trigger alert
Last modem error description	The error message that was generated for the last failed modem transmission.	No
Last SMTP error description	The error message that was generated for the last failed SMTP connection.	No
Pages sent via SMS	Total pages sent via SMS since the Paging service was started.	No
SMS failures	Total number of failed SMS connections since the Paging service was started.	Yes
Last SMS fail code	The error code that was generated for the last failed SMS connection.	Yes
Current SMS server	The computer name or IP address of the current SMS (Push Proxy Gateway) server.	No
Last SMS error description	The error message that was generated for the last failed SMS connection.	No

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