



## 8.5 Gateway for Microsoft Exchange Guide

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# Chapter 1

# Installing and Configuring the Gateway for Microsoft Exchange

The RightFax Gateway for Microsoft Exchange acts as a communication link between the RightFax server and your Exchange server, allowing your users to use Microsoft Outlook to send, receive, and organize fax documents. Outbound e-mail messages addressed to the Gateway for Microsoft Exchange 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.

With the Gateway for Microsoft Exchange, you can also synchronize your RightFax and Exchange user databases. This lets you administer both systems directly from your Exchange administration program and ensure that both Exchange and RightFax client information is consistently and correctly updated.

The RightFax Gateway for Microsoft Exchange is comprised of several components that allow two-way communication between the Exchange and RightFax servers:

- ▶ One or more RightFax gateways are installed on the RightFax server and can be configured from Enterprise Fax Manager (see "Adding and Configuring the Gateway for Microsoft Exchange" on page 6).
- ▶ The RightFax Connector is an Exchange service that handles all communication between the Exchange and RightFax servers as well as user database synchronization. The RightFax Connector consists of connector objects and the RightFax connector service and is configurable from the Exchange Admin program (see "Configuring the RightFax Connector for Microsoft Exchange 5.x" on page 15).
- ▶ Outlook forms allow Microsoft Outlook clients to create and send faxes from a RightFax form built into and launched directly from Outlook. Outlook forms also let clients receive new faxes into a form that includes a built in fax viewer. Advanced forms can be installed on each client workstation separately or a simplified form can be made available to all Outlook clients without a separate installation on each workstation. When you install the advanced Outlook form, a custom fax button is also added to the Outlook toolbar that lets users easily create and address new faxes.
- ▶ Database synchronization tools, including a MAPI database field mapping utility for Exchange 5.x, and Active Directory support for Exchange 2000, allow for unified administration of both the Exchange and RightFax servers.

**Note** RightFax includes four additional e-mail gateways (Microsoft Mail, Lotus cc:Mail, Novell GroupWise, and SMTP/POP3) built into the RightFax server software, however these gateways do not include the sophisticated functionality and feature sets of the Gateway for Microsoft Exchange.

## Before You Activate the Gateway for Microsoft Exchange

Microsoft Exchange Server must be installed on an Intel-based Windows NT or Windows 2000 server that meets or exceeds Microsoft's minimum hardware requirements. Log on to the RightFax server using an ID with local administrative rights. If you do not, configuration will not work.

## Activating the Gateway for Microsoft Exchange

The files required by the Gateway for Microsoft Exchange are installed on all RightFax servers during the server installation. However, the Gateway for Microsoft Exchange must be licensed and activated before gateway functionality will be enabled.

The RightFax Gateway for Microsoft Exchange is automatically activated on several types of RightFax server. For these server types, no additional steps are required.

To activate the Gateway for Microsoft Exchange on other types of RightFax servers, you must have purchased and licensed the Gateway for Microsoft Exchange. For information on activating new components on the RightFax server, refer to the *RightFax Installation Guide*.

After the Gateway for Microsoft Exchange has been activated on the RightFax server, you must add the gateway and configure it to communicate with your Exchange server (described in the next section).

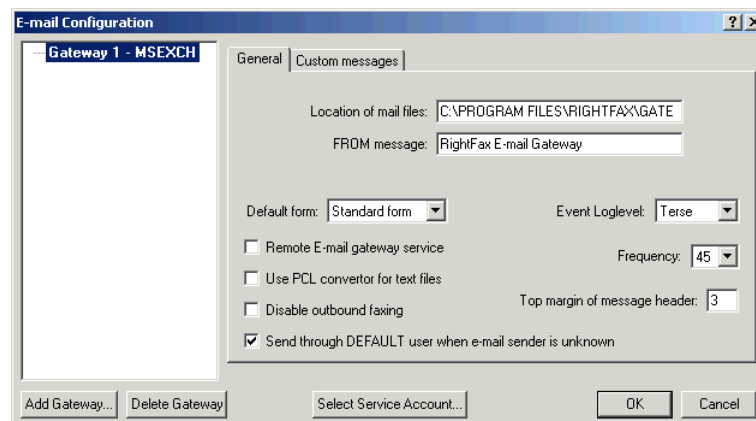
## Adding and Configuring the Gateway for Microsoft Exchange

After you have activated the Gateway for Microsoft Exchange, you must add the gateway and specify several configuration options. 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.

To add a new gateway, click **Add Gateway** and select the gateway type 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.

### Configuring the options on the General tab

Figure 1.1 The General Tab on the E-mail Configuration Dialog Box



Because RightFax allows you to install multiple e-mail gateways, each installed gateway is listed in the left pane. Click **MSEXCH** to view the Gateway for Microsoft Exchange configuration options.

**Location of mail files.** The Gateway for Microsoft Exchange creates In and Out subfolders under the folder you specify here. The In folder is where the gateway will place incoming mail-bound faxes for delivery to the Exchange server. The Out folder is where the gateway will look for outgoing fax-bound mail messages for delivery to the RightFax server.

If you are running Microsoft Exchange 5.x, you must specify a folder on the RightFax server. Both the gateway connector service account (described on page 8) and the account used by the RightFax E-mail Gateway Module service (described on page 9) must have full access to this folder.

If you are running Microsoft Exchange 2000, you must specify a folder on the Exchange server. You can specify any folder on the Exchange 2000 server; however, by default, the gateway connector service account (described on page 8) looks for the In and Out folders in the connector install folder Program Files\RightFax\RFaxGate folder.

**FROM message.** Enter a descriptive name that will appear in the **From** field of all inbound documents sent to Exchange from the RightFax server.

**Default form.** If you have installed Outlook fax forms for your Outlook clients (see "Installing the RightFax Forms for Outlook" on page 37), select the form you want Outlook users to see when opening received fax messages.

**Remote E-mail gateway service.** Allows the e-mail gateway processes to execute on a remote computer rather than on the local computer. (It also prevents the e-mail gateway service from being started by the RightFax server, so do not select this check box if you don't intend to run the gateway remotely.) For more information on running the gateway remotely see "Running the Gateway for Microsoft Exchange Remotely" on page 9.

**Use PCL convertor for text files.** Uses the RightFax PCL conversion engine when converting e-mail messages to fax format. This conversion method usually produces more accurate fax images of ASCII text than RightFax's native document conversion engine. If you notice that e-mail messages are not converting to fax format as accurately as you expect, clear this check box to return to using the native document conversion engine.

**Disable outbound faxing.** Prevents Outlook clients from sending mail messages to fax addresses. When you select this option, the Gateway for Microsoft Exchange will only serve to route received faxes and notifications to Outlook clients.

**Send through DEFAULT user when e-mail sender is unknown.** Assigns fax ownership to the RightFax "Default" user ID when a fax is sent from an Outlook client who does not have a RightFax user ID. If this option is not selected, faxes sent from Outlook clients that have no matching RightFax user ID will not be sent.

**Event Loglevel.** Select the level of information logged in the Application Event Log under the service name "RightFax E-mail Gateway Module." The **Terse** setting records critical errors only. **Verbose** records all significant events and is most useful for tracking and resolving problems. Note that 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.

***Note** Information written to the Application Event Log is valuable in tracking down problems. If you have a problem that can be duplicated, set the LogLevel for all RightFax server applications to **Verbose**, then go through the steps to duplicate the problem. The data stored in the Application Event Log may help you resolve the problem.*

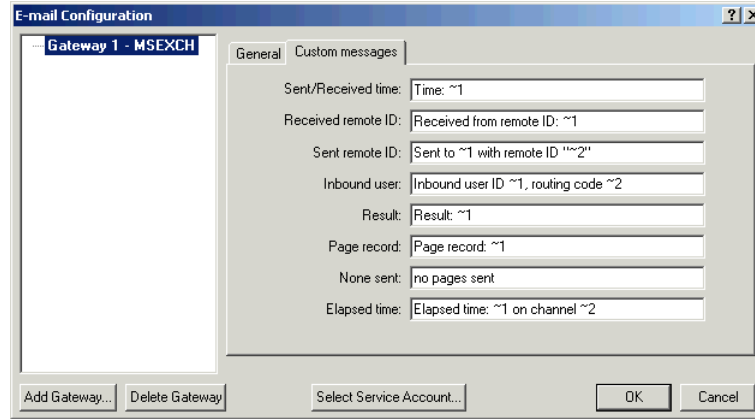
**Frequency.** Sets the interval, in seconds, between checks to the mail system and the RightFax system for work to do (such as received faxes to route or e-mail to convert to faxes). Decreasing this value is not recommended as it may unnecessarily increase the load on the fax server.

**Top margin of message header.** Enter the number of lines to add to the top margin of mail messages when converting to fax format. Adding a few lines to the top margin may prevent some plain paper fax machines from cutting off the top of the message headers.

## Configuring the options on the Custom Messages tab

When a fax is received as an e-mail attachment and when an e-mail notification about the status of a fax is received, the received mail message includes one or more customizable messages providing information about the status of the fax. To customize the text of these messages, click the **Custom Messages** tab.

Figure 1.2 The Custom Messages Tab on the E-mail Configuration Dialog Box



Each message lets you combine text with one or more variables. Each message has its own available variables, described in the following table.

Table 1A E-mail Gateway Custom Message Settings

Notification message	Variables
Sent/Received time	~1 = Date (in Windows locale format) and time (HH:MM)
Received remote ID	~1 = Remote ID
Sent remote ID	~1 = The destination fax number ~2 = The destination remote ID
Inbound user	~1 = The RightFax user ID of the fax recipient ~2 = The fax recipient's routing code
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)
Page record	~1 = The range of page numbers successfully sent or received
None sent	None.
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.

## Selecting a service account

The RightFax Gateway for Microsoft Exchange logs on to the network as a service using a Windows user account that you specify. To change the gateway service account, click **Select Service Account**. This opens the **Select Service Account** dialog box.

Figure 1.3 The Select Service Account Dialog Box

Select the account the Services will use to startup.  
NOTE: If you will be storing or accessing files on a NetWare volume, make sure the Service account exists as an account within Novell. Also remember that passwords are case sensitive.

Domain or Workgroup:  
RIGHTFAXUSER

User Account:  
RightFaxUser

Password:  
[ ]

Confirm Password:  
[ ]

OK Cancel Load Users

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 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.

### Starting and stopping the gateway service

After installing the Gateway for Microsoft Exchange, a new service called “RightFax E-mail Gateway Module” is created. If the gateway is running on the fax server, the service is set to “Manual” and is automatically started and stopped by the RightFax Server service and you should not stop the RightFax E-mail Gateway Module service manually. If the gateway is running on a remote machine (see “[Running the Gateway for Microsoft Exchange Remotely](#)” on page 9) you must start and stop the RightFax E-mail Gateway Module service manually.

## Running the Gateway for Microsoft Exchange Remotely

By default, the RightFax E-mail Gateway Module service runs on the RightFax server. You may choose to run the E-mail Gateway Module service on a different machine if:

- You want to decrease the workload on the RightFax server.
- You anticipate a high volume of gateway traffic and don’t want the added workload to interfere with the routine operation of the RightFax server.

### To run the RightFax E-mail Gateway Module service remotely

1. Run Enterprise Fax manager.
2. Select the RightFax server where the Gateway for Microsoft Exchange is installed, and double-click the RightFax E-mail Gateway Module service. This opens the **E-mail Configuration** dialog box.
3. Check the **Remote E-mail Gateway Service** option to enable remote operation.
4. On the remote computer where you want to run the E-mail Gateway Module service, map a drive to the RightFax folder on the RightFax server.
5. Open a command prompt window and switch to the Gateway folder on the drive you mapped.

6. Run the Gateway.exe program using the following syntax:

```
EXCHGATEWAY -Lpath -Fdatabase -SGATEWAYn
```

Where *path* is the path to the RightFax folder on the RightFax server, *database* is the name of the server containing the RightFax Database module, 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 "GATEWAY3," 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** EXCHGATEWAY -LR: -FRFAXSERV -SGATEWAY

This example starts the remote gateway service process from the R: drive, which is mapped to the Program Files\RightFax folder on the RightFax server. The process will look for the RightFax Database module on the server "RFAXSERV."

## Troubleshooting the Gateway for Microsoft Exchange

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. To open the 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 information saved to the Event log is determined by the **LogLevel** setting in the RightFax E-mail Gateway configuration program (described on page 7). With the log level set to **Terse**, only critical errors will be recorded. Log levels **Normal** and **Verbose** record more information that may help track down problems.

Running the RightFax E-mail Gateway Module service in a command prompt window will also give a very detailed account of what is happening with the gateway.

### To run the gateway in a command window

1. Stop the RightFax E-mail Gateway Module service.
2. Open a command prompt window.
3. Change to the RightFax\Gateway folder on the RightFax server and enter this command:

```
EXCHGATEWAY -D -1 -SGATEWAYn
```

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 GATEWAY3, 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** EXCHGATEWAY -D -1 -SGATEWAY

When running the e-mail gateway in a command window, you must set the window properties to allow you to scroll backwards some distance. 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 or logging into Exchange

Ensure that the appropriate Windows NT account is being used. Open the Services program in Control Panel. Highlight RightFax E-mail Gateway and click **Startup**. The **Account** box should display an account name. If not, start the gateway with an account that has administrative access. The default is RIGHTFAXUSER. Log off and back on using this account.

### **Error 53**

This is a Windows NT networking error which indicates that the UNC name which 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 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.

### **Faxes are going out, but no e-mail notifications are being sent**

Normally, users who send faxes via mail do not have a RightFax account and the faxes will be routed through the RightFax Default fax mailbox. When a fax goes out, RightFax tries to notify the user of the fax status. Since the fax went through the Default fax mailbox, RightFax will try to notify the network user Default, thus the notification never reaches the sender.

### **Cannot access inbound/outbound folder**

The folder entered as the **Location of In/Out Directories** box on the **RightFax Connector** dialog box is invalid (see "In/Out Directories" on page 17). The path specified may not exist, may be misspelled, may not use proper UNC naming conventions, or the user account specified for the RightFax Connector Service may not have administrative access to the specified folder.

### **Error resolving destination mailbox: *MailBoxName***

An incoming fax from the RightFax server could not be converted correctly. This is usually due to the user's **Routing Info** box in Enterprise Fax Manager not matching a display name of an Exchange mailbox. Make sure the user's RightFax user ID matches an Exchange user's Display Name.

■ ■ ■

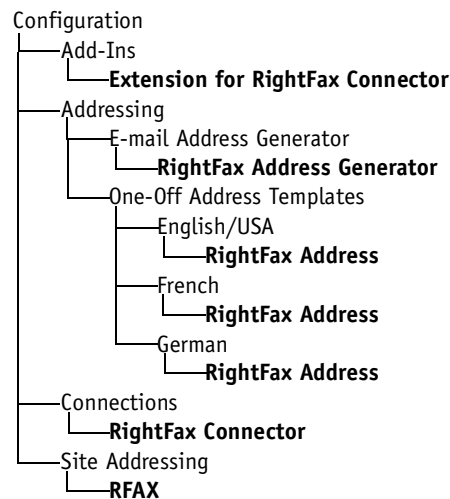


# Chapter 2

## Installing the RightFax Connector for Microsoft Exchange 5.x

Once you have installed and configured the Gateway for Microsoft Exchange, you must install and configure the RightFax Connector. This is the Exchange service that handles all communication between the Exchange and RightFax servers.

The RightFax Connector for Microsoft Exchange is made up of several objects installed in the site container. Each connector object is indicated in bold in the following description:



The RightFax Connector for Microsoft Exchange service is made up of several files that direct the fax process through Exchange:

- RFaxgate.exe is the main connector service.
- RFax\_in.dll performs inbound fax information processing.
- RFax\_out.dll performs outbound fax information processing.
- RFXadmin.dll handles fax configuration in Exchange Admin.
- RFaxprox.dll is the proxy address generator.

## Installing the RightFax Connector on Microsoft Exchange 5.x Servers

**Note** These installation instructions apply only if you are running Microsoft Exchange Server version 5.x. If you are running Microsoft Exchange 2000 Server, see “Installing the RightFax Connector on Microsoft Exchange 2000 Servers” on page 24.

To install the RightFax Connector on a Microsoft Exchange 5.x server, you must log on to the Exchange server with an ID that has Exchange Service Account Administrator privileges. This account must be able to access the RightFax\Gateway folder on the RightFax server, and should also have administrative rights on both the Exchange and RightFax servers.

The RightFax Connector for Microsoft Exchange provides two installation options: full installation of the connector service and objects, and an address templates-only option. You must complete the full installation on at least one Exchange server within your Exchange site.

**Note** If you are running multiple Exchange sites, you can install a single connector to service all of the Exchange servers in every site only if you have configured Exchange directory replication. In this case, you must still install the RightFax address templates on an Exchange server in each of the additional sites (described on page 15). These templates provide Exchange users a way to enter data needed for outbound faxing via RightFax.

### To perform a full installation of the RightFax Connector for Microsoft Exchange 5.x

1. Log on to your Exchange server with an account that has Exchange Service Account Administrator privileges.
2. Run the Setup.exe file located in the RightFax\Gateway\Setup for the Exchange 5.x connector folder on the RightFax server. This will start the RightFax Connector setup wizard.
3. Click **Next** after reading the initial **Information** screen to open the **Installation Options** screen.

**Note** Several Exchange containers are modified during the connector installation. Most of these contain information that is static and should not be changed under any circumstances.

4. From the **Installation Options** screen, select **Full Install**. Setup will ask you to enter an **Install Directory** on the Exchange server where the connector will be installed. Click **Next** to proceed using the default folder name.
5. Fill in the UNC path to the RightFax e-mail gateway folder on the RightFax server (e.g., \\RFServer\Program Files\RightFax\Gateway). Click **Next** to continue.
6. Fill in the name of the Exchange server that you want to handle fax messaging. Click **Next**. Setup will scan your network and display a list of all available Exchange sites. Select the Exchange site you want to synchronize with RightFax, and then click **Next**.
7. Enter the domain and account name to be used by the connector service. This should be the same account your other Exchange services use to start up. Enter and then confirm the password for the account you specify. Click **Next**. The setup wizard will now install the RightFax Connector.
8. In the **Enable Sync** dialog box, select whether to enable or disable Exchange synchronization. This allows you to synchronize your Exchange and RightFax user databases. For more information on database synchronization between RightFax and Exchange 5.x servers see [Chapter 4, “Synchronizing Exchange 5.x and RightFax User Accounts”](#).
9. When the Setup program is complete, click **Finish** to quit.

### To install the connector templates only

You should choose this limited installation option only if your Exchange configuration has multiple Exchange sites. Because template files cannot be replicated between sites automatically by Exchange, you must install the templates manually to an Exchange server at each additional site in your organization.

Follow the steps for the full installation, but at the **Installation Options** screen, select **Templates Only**. This installation requires no additional steps.

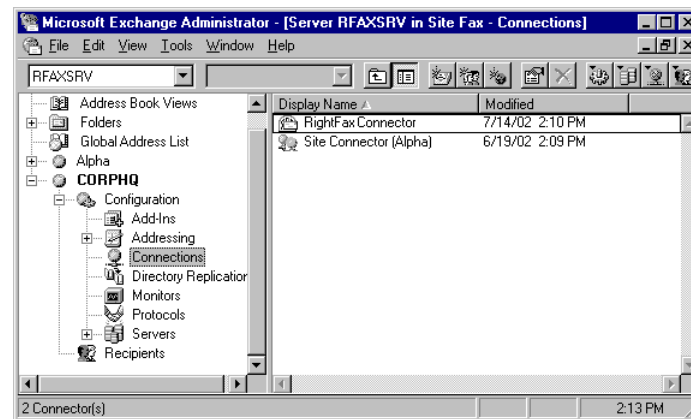
## Configuring the RightFax Connector for Microsoft Exchange 5.x

After the RightFax Connector for Microsoft Exchange has been installed, you should configure it while still logged into the Exchange server with Exchange Service Account Administrator privileges.

### To configure the RightFax Connector for Microsoft Exchange 5.x

1. On the Exchange server, run the Microsoft Exchange Admin program.
2. Select **Connections** from the **Configuration** container under the Exchange site where you installed the connector. If you have properly installed the connector, it will appear as an option here.

Figure 2.1 Location of the RightFax Connector in Exchange Administrator



3. Double-click **RightFax Connector**. This opens the **RightFax Connector Properties** dialog box. Click the **Administration** tab.

The rest of this section describes each of the options on this dialog box.

**Figure 2.2** The RightFax Connector Properties



**Enable OutBound.** Select this check box to allow e-mail messages to be sent as faxes directly from Exchange and Outlook clients.

**Enable InBound.** Select this check box to allow received faxes to be forwarded as e-mail messages to Exchange and Outlook clients.

**FAX Addresses.** Specify when to accept fax addresses using the FAX addressing type. This is a simplified fax addressing type that lets users specify only the destination name and fax number in the format:

[ FAX : Name@FaxNumber ]

(Be sure to include the opening and closing square brackets.)

You can allow this type of fax address from users across the organization, site, or location. Select **Do Not Accept** to require users to use the RFX addressing method. If you select **Custom**, you can customize the scope of this address type on the **Address Space** tab.

**RFX Addresses.** Specify when to accept fax addresses using the RFX addressing type. This is an advanced fax addressing type supported by RightFax that lets users specify the destination name and fax number in the format:

[ RFX : Name@/FN= FaxNumber ]

(Be sure to include the opening and closing square brackets.)

You can allow this type of fax address from users across the organization, site, or location. Select **Do Not Accept** to require users to use the FAX addressing method. If you select **Custom**, you can customize the scope of this address type on the **Address Space** tab.

**Logging Level.** Specifies the level of information logged in the Application Event Log under the service name "RightFax E-mail Gateway Module." The "Normal" setting records critical errors only. "Debug" records all significant events and is most useful for tracking and resolving problems. Note that if you leave this value set to "Debug" for long periods of time, the Event Log can become full which may prevent new events from being logged.

**Enable Message Tracking.** When this check box is selected, the connector will write a tracking event in the Exchange Message Tracking Log for all fax messages successfully sent to and received from RightFax. For received fax messages, the Tracking Log records the fax's RightFax unique ID, the CSID of the sending fax machine, and the Exchange ID of the fax recipient. For sent faxes, the Tracking Log records the Exchange ID of the sender, the destination fax address, and the MTS-ID.

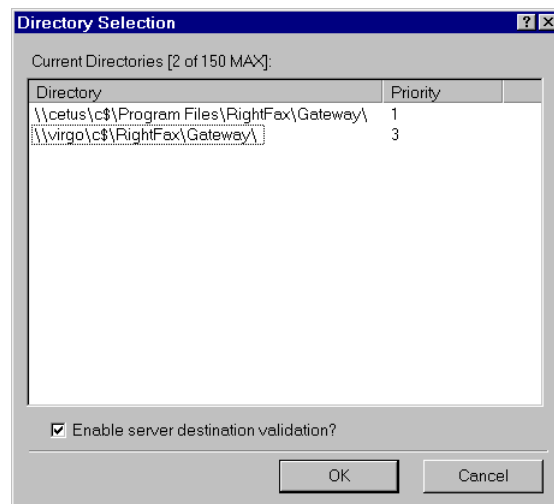
If message tracking is enabled, you can force all faxes sent via the connector to use the last 15 digits of the Message Tracking Log's MTS-ID as the fax's unique ID in RightFax. This will help you locate sent faxes in RightFax that have been identified in the Message Tracking Log.

To enable this feature, edit the Windows registry. Navigate to HKEY\_LOCAL\_MACHINE\Software\RightFax\Gateway\Gateway#. Next, add the registry value class DWORD and the value "UseMTSID." Set its value to hexadecimal "0x1" by entering 1 in the DWORD editor.

**In/Out Directories.** Select one or more paths to the gateway folder on the RightFax server(s). Each connector can communicate with up to ten gateways on multiple RightFax servers. This may be useful for configuring redundancy into organizations with several RightFax servers. The connector uses gateway folders (also called In/Out folders) to store fax-bound mail messages and to pick up mail-bound faxes.

To add, edit, or delete in/out folders, click **Change**. This opens the **Directory Selection** dialog box.

**Figure 2.3** The Directory Selection Dialog Box



This dialog box lists each gateway folder the connector will communicate with. To add a new folder, right-click in the dialog box to open a shortcut menu, click **Add New**, and then type the UNC path to the new gateway folder. To delete a folder, right-click the folder to open a shortcut menu, and click **Delete**.

You can also assign each In/Out folder a priority. The connector will always use the folder with the lowest priority setting. If a folder can't be found, it will use the next lowest. If two folders have the same priority, the connector will alternate folders. The connector will automatically perform user synchronization (if enabled) on any gateway with a priority of 1, 2, or 3. The connector will never perform user synchronization on gateways with a priority of 4 or 5. To assign a priority, right-click the folder to open a shortcut menu, and select the priority setting.

When configuring the Outlook Fax Extension, users can specify the RightFax server to connect to.

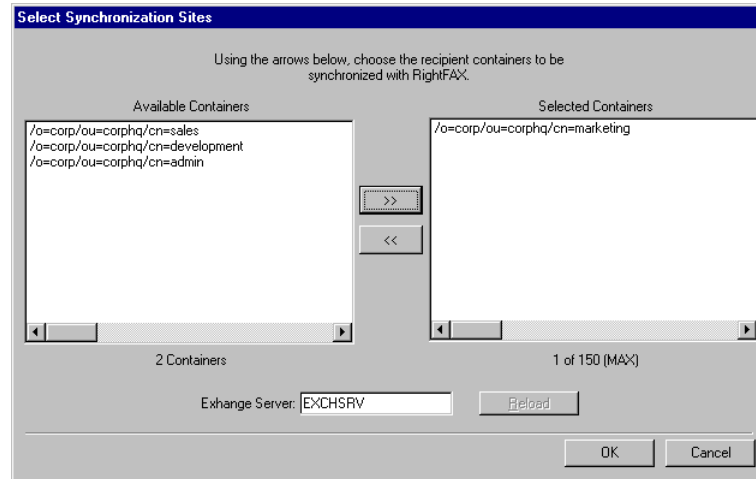
To specify that faxes should be sent from the server specified in the Outlook client, select the check box **Enable server destination validation**. When sending a fax, Exchange will attempt to send via the specified server. If the server is not available, Exchange will use one of the servers specified in the Directory Selection dialog box, in priority order.

**Default Exchange Administrator.** Select an Exchange administrator account. This account will receive inbound faxes from RightFax that are undeliverable, and will also receive notification of synchronization events. To change this setting, click **Change** and select the new Exchange administrator from the list.

**Enable User Synchronization.** Enables Exchange/RightFax user database synchronization. This lets you update RightFax user accounts from Exchange user accounts. Modifications to users in Exchange are applied to the same users in RightFax. Also, new user accounts from Exchange will be created in RightFax. Deleted user accounts in Exchange will be deleted from RightFax.

**Synchronized Containers.** Select the Exchange containers to synchronize with RightFax. Click the browse button to open the **Select Synchronization Sites** dialog box.

Figure 2.4 The Recipient Container to Be Synchronized With RightFax



Each available container is listed in the **Available Containers** list. To select a container, enter a server name in the **Exchange Server** box, and then click the container you want and click the RIGHT ARROW key to move the container to the **Selected Containers** list. You can select up to 150 containers on as many servers as you want. When you have selected the containers you want synchronized with RightFax, click **OK**.

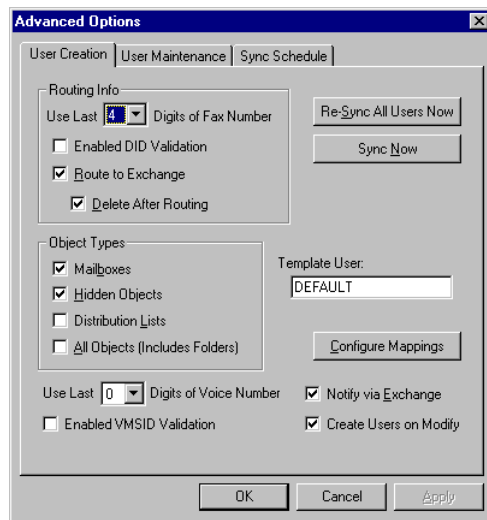
**Connector State.** Indicates whether the connector is started or stopped. Click **Start/Stop** to start and stop the connector.

## Advanced options

Click **Advanced Options** to open the **Advanced Options** dialog box. Use this dialog box to customize Exchange and RightFax user database synchronization.

## The User Creation tab

Figure 2.5 The User Creation Tab



**Use Last x Digits of Fax Number.** Enter the number of digits in the Exchange user’s **Fax Number** field to be automatically entered as the same user’s RightFax **Routing Code** field for inbound routing. Set to 0 (zero) to disable.

**Enable DID Validation.** Select this check box to automatically verify that new RightFax user IDs created during user synchronization have unique **Routing Code** settings. If the value is not unique, Exchange will log an error to the Sync Log (which is automatically e-mailed to the administrator’s inbox after the synchronization is complete) and set the new user’s **Routing Code** in RightFax to “100.” This prevents duplication of existing RightFax users’ **Routing Code** settings.

**Route to Exchange.** Select this check box to automatically set the RightFax **Routing Type** field to “Microsoft Exchange” for all new RightFax users generated by the Exchange/RightFax synchronization process.

**Delete After Routing.** Select this check box to automatically enable the **Delete After Routing** option for all new RightFax users generated by the Exchange/RightFax synchronization process.

**Object Types.** Check which exchange objects to synchronize with RightFax. Exchange mailboxes correspond directly to individual RightFax IDs. When an Exchange distribution list is synchronized, the distribution list corresponds to user ID in RightFax. Faxes arriving to that user ID are forwarded to the Exchange distribution list which then distributes them normally. When an Exchange public folder is synchronized, the folder corresponds to user ID in RightFax. Faxes arriving to that user ID are forwarded to the Exchange folder.

**Note** For public folders to receive inbound fax messages, they must grant the “Anonymous” login permission.

**Use Last x Digits of Voice Number.** Enter the number of digits in the Exchange user’s **Phone Number** field to be automatically entered as the same user’s RightFax **Voice Mail Subscriber ID**. Set to 0 (zero) to disable.

**Enable VMSID Validation.** Select this check box to automatically verify that new RightFax user IDs created during user synchronization have unique **Voice Mail Subscriber ID** settings. If the value is not unique, Exchange will log an error to the Sync Log (which is automatically e-mailed to the administrator’s inbox after the synchronization is complete) and set the new user’s **Voice Mail Subscriber ID** in RightFax to “100.” This prevents duplication of existing RightFax users’ **Voice Mail Subscriber ID** settings.

**Re-Sync All Users Now.** Click this button to immediately synchronize all Exchange user accounts with RightFax. This option only should be used when you need to replace all user accounts in the RightFax database.

For more information on synchronization see [Chapter 4, "Synchronizing Exchange 5.x and RightFax User Accounts"](#).

**Sync Now.** Click this button to immediately synchronize only modified Exchange user accounts with RightFax. This option updates the RightFax database with any new, modified, or deleted user accounts made since the last scheduled or forced synchronization.

For more information on synchronization see [Chapter 4, "Synchronizing Exchange 5.x and RightFax User Accounts"](#).

**Template User.** Specifies which RightFax user account will be used as a template for all new RightFax users generated by the Exchange/RightFax synchronization process.

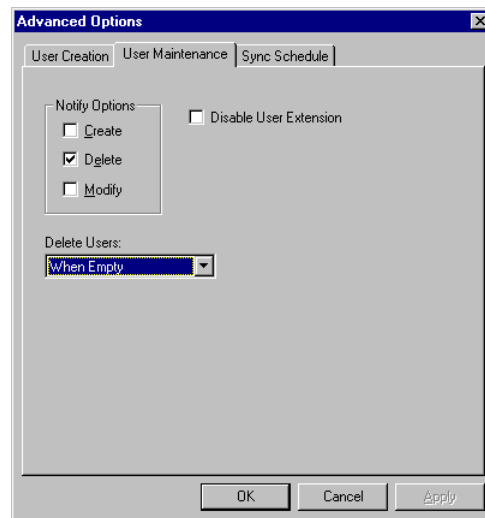
**Configure Mappings.** Click this button to open the MAPI-to-RightFax Property Mapper utility. This utility lets you associate Exchange user fields with RightFax user fields. During user synchronization, data will be automatically transferred from Exchange fields to the RightFax fields they are mapped to. For information on using the MAPI-to-RightFax Property Mapper utility see ["Using the MAPI-to-RightFax Property Mapper Utility"](#) on page 33.

**Notify via Exchange.** Select this check box to automatically set the RightFax **Notification Method** field to "Microsoft Exchange" for all new RightFax users generated by the Exchange/RightFax synchronization process.

**Create Users on Modify.** Select this check box to automatically create a new user in RightFax when, during a synchronization, an Exchange user is reported as modified but has no equivalent user ID in RightFax. This may be useful if a user ID is deleted from RightFax but not Exchange.

## The User Maintenance tab

Figure 2.6 The User Maintenance Tab



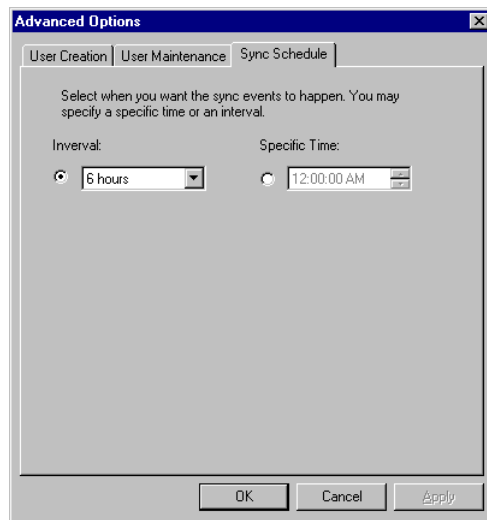
**Notify Options.** Check which automatic RightFax user account events for which you want e-mail notification sent to the Exchange administrator.

**Delete Users.** Specifies when to delete a RightFax user after the same user is deleted from Exchange.

**Disable User Extension.** When this check box is selected, the RightFax user extension (see ["The RightFax User Extension"](#) on page 35) is disabled.

## The Sync Schedule tab

Figure 2.7 The Sync Schedule Tab



**Interval.** Click to specify an interval between Exchange/RightFax user database queries. After each query, any modifications to user accounts in Exchange are applied to their linked user accounts in RightFax. If this option is selected, you must also enter the interval.

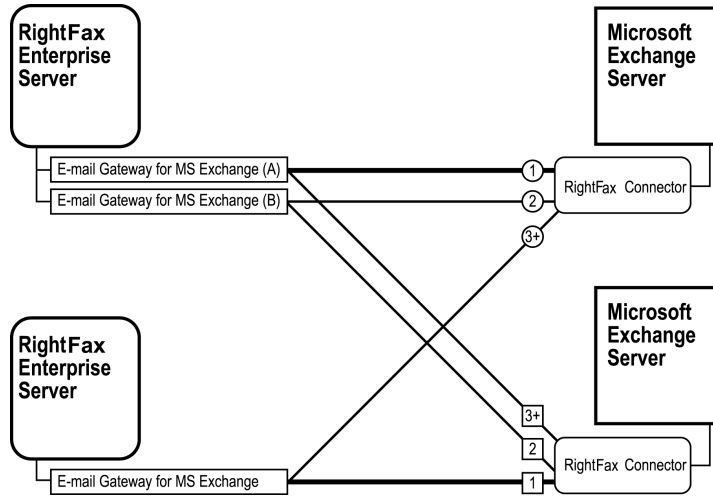
**Specific Time.** Click to specify a specific time of day for Exchange/RightFax user database queries. After each query, any modifications to user accounts in Exchange are applied to their linked user accounts in RightFax. If this option is selected, you must also specify the time.

## Configuring the Connector to Work with Multiple Exchange Gateways

Only one RightFax connector can be installed on each Exchange server, although each connector can communicate with multiple RightFax gateways. Each connector/gateway connection can be assigned a priority. The connector will always use the gateway with the lowest priority setting. If a gateway can't be found, it will use the next lowest. If two gateways have the same priority, the connector will alternate gateways. The connector will automatically perform user synchronization (if enabled) on any gateway with a priority of 1, 2, or 3 and will never perform user synchronization on gateways with a priority of 4 or 5.

The following diagram illustrates the use of connection priorities to create redundancy in a multiple RightFax/Exchange server environment.

Figure 2.8 RightFax/Exchange Server Redundancy



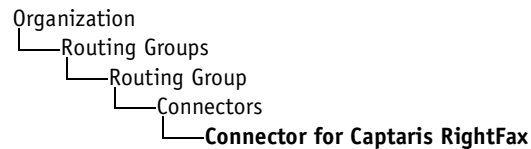
Server redundancy is enabled by assigning multiple In/Out folders (one per installed gateway) to a single connector, and assigning each a different priority level. For information on configuring In/Out folders in the RightFax connector for Microsoft Exchange, see ["In/Out Directories"](#) on page 17.

■ ■ ■

# Chapter 3

## Installing the RightFax Connector for Microsoft Exchange 2000

Once you have installed and configured the Gateway for Microsoft Exchange, you must install and configure the RightFax Connector. This is the Exchange 2000 service that handles all communication between the Exchange 2000 and one or more RightFax servers. The connector object is indicated in bold in the following description:



The RightFax Connector for Microsoft Exchange is made up of several files that direct the fax process through Exchange 2000:

- RFaxgate.exe is the main connector service.
- RFax\_in.dll performs inbound fax information processing.
- RFax\_out.dll performs outbound fax information processing.
- ExchSnap.dll handles fax configuration in Exchange System Manager.

## Installing the RightFax Connector on Microsoft Exchange 2000 Servers

**Note** These installation instructions apply only if you are running Microsoft Exchange 2000 Server. If you are running Microsoft Exchange Server version 5.x, see “Installing the RightFax Connector on Microsoft Exchange 5.x Servers” on page 14.

To install the RightFax Connector for Microsoft Exchange, you must be logged on to the Exchange 2000 server with an account that is a member of all of the following Exchange 2000 groups:

- Enterprise Admins
- Schema Admins
- Domain Admins

In addition, you must be able to access the RightFax\Gateway\Setup for the Exchange 2000 connector folder on the RightFax server.

### To install the RightFax Connector for Microsoft Exchange 2000

1. Log on to the Exchange 2000 server.
2. In the RightFax\Gateway\Setup for the Exchange 2000 connector folder on the RightFax server, double-click to run E2KSetup.msi. This will start the RightFax Connector setup wizard.
3. Click **Next** after reading the initial **Information** screen to open the **Installation Options** screen.
4. Select **Complete** or **Custom**, and then click **Next**.

**Note** If you want to install the connector to a folder other than the default folder Program Files\RightFax\RFaxGate, or if you want to install the MMC Administrative Tool (described on page 25) only, you must select the **Custom** option.

5. Click **Next** on each of the **Install Options** screens. In most cases, accepting the default settings on these screens is recommended. When prompted, click **Install**.
6. The Exchange 2000 schema must be updated in order to proceed with the install. If this is necessary, you will be prompted to begin updating the schema. This process may take a few minutes or as long as several hours, depending on the size of your Active Directory domain.  
  
A message may appear indicating that the install is unable to add the connector object. Click **Retry** to check the progress of the update. If the update is still in progress, the message will reappear. If the update is complete, the message will close and the install will continue.
7. If the setup program detects multiple Exchange 2000 servers on your network, you will be prompted to select the server to install the connector on. Select the server you want, and then click **Next**.
8. Click **Finish** to complete the install.
9. When the install is complete, run the **Services** application in Windows Control Panel and start the **RightFax Connector** service.

### To Configure the RightFax server to work with the connector

After the connector software has been installed, follow these steps to configure the RightFax server:

1. On the RightFax server, run Enterprise Fax Manager.
2. Open the RightFax server that has the Gateway for Microsoft Exchange installed and double-click **RightFax E-mail Gateway Module** in the list of services. This opens the **E-mail Configuration** dialog box. Click the **General** tab.
3. In the **Location of mail files** box, enter the location of the message transfer directory you specified during the connector installation. If you accepted the default folder location during the connector installation on the Exchange 2000 server, this is the ExchServer\Program Files\RightFax\RFaxGate folder.

## Configuring the RightFax Connector for Microsoft Exchange 2000

After the connector is installed, you can customize the connector configuration settings in the Exchange System Manager using the MMC Administrative Tool.

**Note** You can install the MMC Administrative Tool for the RightFax Connector on any computer that has Exchange System Manager installed. To install the MMC Administrative Tool only, run the installation program for the RightFax Connector for Exchange 2000 (described on page 24), select the **Custom** option, and then select only the **MMC Administrative Tool** option from the list of components.

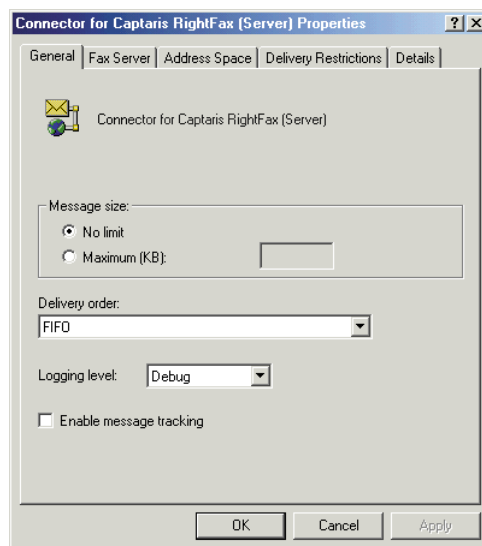
### To configure the RightFax Connector for Microsoft Exchange 2000

1. Run the Exchange System Manager program.
2. Navigate to **Connectors**, right-click **Connector for Captaris RightFax**, and then select **Properties** in the shortcut menu.

The rest of this section describes each of the options in this dialog box.

### The General tab

Figure 3.1 The Connector for Captaris RightFax Properties General Tab



**Message size.** Select **No limit** to accept all messages from the fax server regardless of the file size of the message. Select **Maximum (KB)** to specify the maximum file size of messages that the Exchange server will pass to the fax server. Enter the maximum file size in kilobytes. Messages that exceed this file size will not be forwarded to the fax server.

**Delivery order.** Select the sequence that the Exchange Message Transfer Agent (MTA) will use when delivering mail to the connector:

- **FIFO.** The MTA delivers messages to the connector on a first-in first-out (FIFO) basis.
- **Priority.** The MTA delivers messages marked with a high priority first.
- **Size.** The MTA delivers messages that are smallest first.

**Logging level.** Select the level of information that will be logged in the Application Event Log under the service name "RightFax E-mail Gateway Module." **Normal** records critical errors only. **Debug** records all significant events and is most useful for tracking and resolving problems.

If you leave this option set to **Debug** for long periods of time, the Event Log can become full very quickly, which will prevent new events from being logged.

**Enable message tracking.** Select this option to write a tracking event in the Exchange Message Tracking Log for each fax message successfully sent to or received from the fax server.

For received faxes, the Message Tracking Log records:

- The unique ID of the fax, assigned by the fax server.
- The caller service identification (CSID) of the sending fax machine.
- The object distinguished name of the fax recipient.

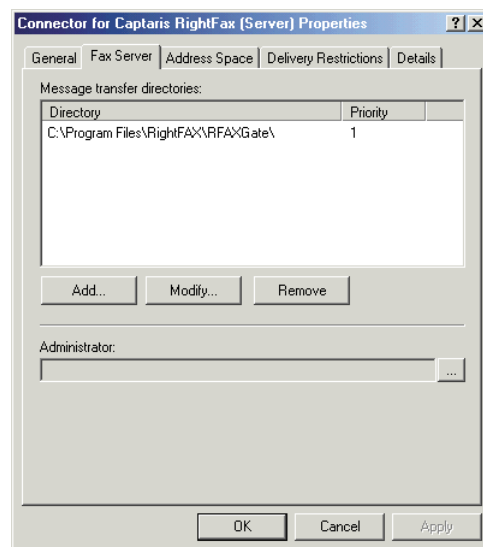
For sent faxes, the Message Tracking Log records:

- The Exchange ID of the sender.
- The destination address for the fax.
- The message transfer system identification (MTS-ID) assigned by the connector.

When message tracking is enabled, you can force all faxes sent via the connector to use the last 15 digits of the MTS-ID as the unique ID of the fax. This will help you locate faxes on the fax server that have been identified in the Exchange Message Tracking Log. To enable this feature, edit the Windows registry. Navigate to HKEY\_LOCAL\_MACHINE\Software\RightFax\Gateway\Gateway#. Next, add the registry value class DWORD and the value "UseMTSID." Set its value to hexadecimal "0x1" by entering 1 in the DWORD editor.

## The Fax Server tab

Figure 3.2 The Connector for Captaris RightFax Properties Fax Server Tab



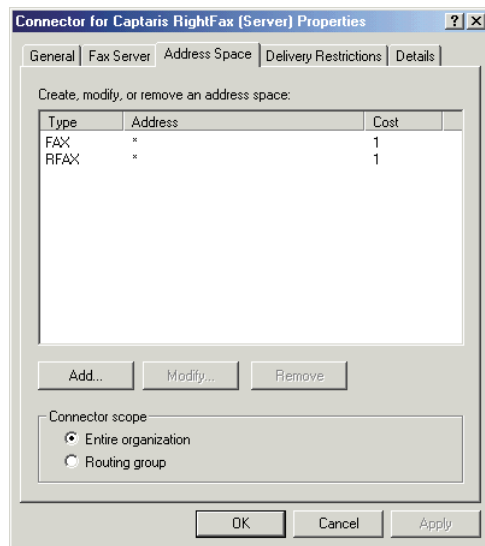
**Message transfer directories.** Message transfer directories store the mail messages that are being routed to the fax server and the fax images that are being routed to the Exchange server. You must specify one message transfer directory for each fax server that the Exchange 2000 connector will communicate with. The message transfer directory must be a local folder on the Exchange 2000 server, and it must be specified as a standard path (for example, C:\Program Files\RightFax\RFaxGate). Each RightFax server with the Gateway for Microsoft Exchange installed is configured to communicate with one message transfer directory (see ["To Configure the RightFax server to work with the connector"](#) on page 24).

Each message transfer directory is assigned a priority. The RightFax connector will always use the message transfer directory with the lowest priority setting. If a directory can't be found, it will use the next lowest. If two directories have the same priority, the connector will alternate directories.

**Administrator.** Select an Exchange Admin account that will receive undeliverable inbound fax messages and notification of synchronization events.

## The Address Space tab

Figure 3.3 The Connector for Captaris RightFax Properties Address Space Tab

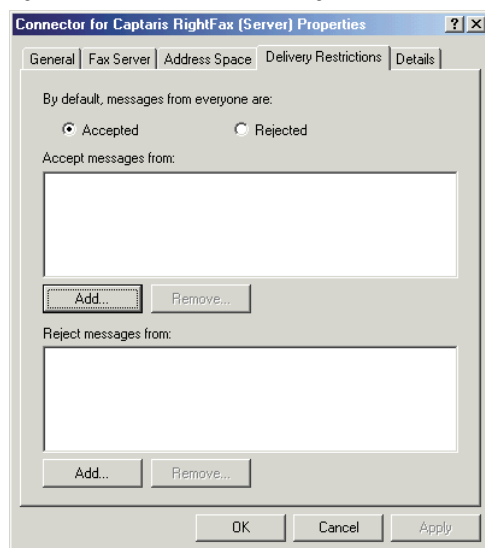


**Create, modify, or remove an address space.** This is a list of the Exchange address spaces that will be routed to the fax server. All messages within the address spaces specified here will be routed to the fax server. By default, messages with the FAX and RFAX address types (described on page 43) will be routed to the fax server by the connector.

**Connector scope.** Select **Entire organization** to enable the connector for all servers on your network. Select **Routing group** to enable the connector only for servers in the local routing group.

## The Delivery Restrictions tab

Figure 3.4 The Connector for Captaris RightFax Properties Delivery Restrictions Tab



**By default, messages from everyone are.** Click **Accepted** to accept fax-bound messages from all sources. If you select this option, you will still be able to reject messages from specified sources. You should select this option if you intend to accept messages from all but a few sources. Specify the exceptions in the **Reject messages from** box.

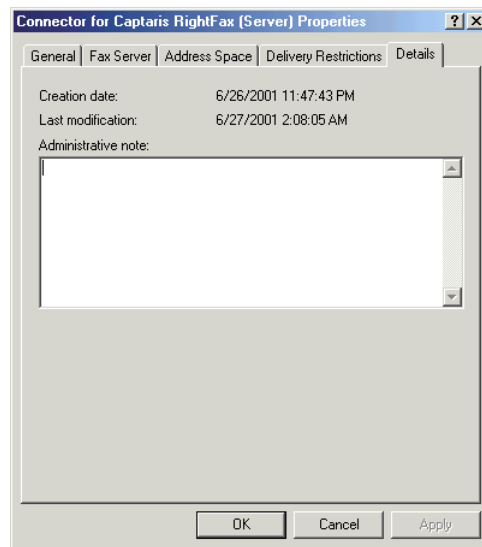
Click **Rejected** to reject fax-bound messages from all sources. If you select this option, you can still accept messages from specified sources. You should select this option if you intend to accept messages from only a few sources. Specify the exceptions in the **Accept messages from** box.

**Accept messages from.** This is a list of senders from whom messages will be accepted. You may want to add Exchange users to this list if you select **Rejected** as the default for all users. If so, the connector will only accept messages from users listed here.

**Reject messages from.** This is a list of senders from whom messages will be rejected. You may want to add Exchange users to this list if you select **Accepted** as the default for all users. If so, the connector will accept messages from all users except those listed here.

## The Details tab

Figure 3.5 The Connector for Captaris RightFax Properties Details Tab



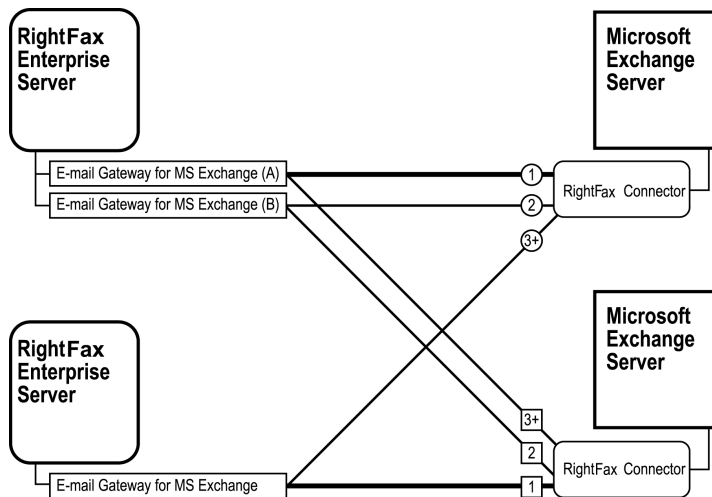
**Administrative note.** Add an optional note, up to 1024 characters.

## Configuring the Connector to Work with Multiple Exchange Gateways

Only one RightFax connector can be installed on each Exchange 2000 server, although each connector can communicate with multiple RightFax gateways through the specified message transfer directories (described on page 26). Each connector/gateway connection is assigned a priority. The connector will always use the message transfer directory with the lowest priority setting. If a message transfer directory can't be found, it will use the next lowest. If two message transfer directories have the same priority, the connector will alternate between them.

The following diagram illustrates the use of connection priorities to create redundancy in a multiple RightFax/Exchange 2000 server environment.

Figure 3.6 RightFax/Exchange 2000 Server Redundancy



Server redundancy is enabled by assigning multiple message transfer directories (one per installed gateway) to a single connector and assigning each a different priority level. For information on configuring message transfer directories in the RightFax connector for Microsoft Exchange, see "Message transfer directories" on page 26.

## Installing the Connector for Exchange 2000 on a Windows 2000 Cluster

**Important** The Connector for Microsoft Exchange 2000 requires that your cluster environment be configured as Active-Passive. It will not function in an Active-Active Cluster configuration.

Installing the Connector for Exchange 2000 on a Windows 2000 cluster requires these basic steps:

1. Create the mail directories (page 30).
2. Install the connector on the primary node (page 30).
3. Install the connector on the secondary node (page 30).
4. Create the RFAXGATE resource (page 30).
5. Create the file share resource (page 31).
6. Change the mail directory paths (page 31).
7. Modify the Windows Registry (page 31).
8. Test communication between the two servers (page 32).

## Creating the mail directories

1. From the root of the cluster shared drive, create a new folder named RFaxGate. Add two subfolders to this folder named RFaxGate\In and RFaxGate\Out.
2. Right-click the RFaxGate folder and select **Sharing** from the shortcut menu. This opens the **Properties** dialog box with the **Sharing** tab displayed.
3. Select **Share this folder** and type "RFAXGATE" in the **Share name** box.
4. Click **Permissions**, and then click **Add**.
5. Select the service account used by the Exchange e-mail gateway service and click **Add**. Click **OK**.
6. Select the service account you added and allow full control. Click **OK** to return to the **Properties** dialog box.
7. Select the **Security** tab and click **Add**.
8. Select the service account used by the Exchange e-mail gateway service and click **Add**. Click **OK**.
9. Select the service account you added and allow full control.
10. Click **Advanced**.
11. Check the **Reset permissions on all child objects and enable propagation of inheritable permissions** check box and click **OK**.
12. Close the **Permissions** dialog box.

## Installing the connector on the primary node

**Important** You must be working at the Exchange console for the connector to install properly. Connecting remotely to the server will result in an "unknown error" message and the installation will fail.

1. Log on to the primary node using an account that is a member of the Domain Admins, Enterprise Admins, and Schema Admins groups.
2. Install the Exchange 2000 connector according to the instructions in "Installing the RightFax Connector on Microsoft Exchange 2000 Servers" (page 24).

## Installing the connector on the secondary node

1. Fail over to the secondary node.
2. Install the Exchange 2000 connector on the secondary node according to the instructions in "Installing the RightFax Connector on Microsoft Exchange 2000 Servers" (page 24).

## Creating the RFAXGATE resource

1. Fail back to the primary node.
2. Run Cluster Administrator and open the Exchange cluster group.
3. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
4. In the **Name** box, enter RFSERVER.
5. In the **Description** box, enter RightFax Exchange Connector.
6. Set **Resource Type** to **Generic Service**.
7. Select the Exchange group.
8. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.

9. In the **Resource Dependencies** box, add the MS Information Store, MS MTA, and MS System Attendant resources.
10. Click **Finish** to add the resource to the group.

### Creating the file share resource

1. Right-click **Resources**, and then select **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** box, enter RFaxShare.
3. In the **Description** box, enter RightFax File Share for Connector.
4. Set **Resource Type** to **File Share**.
5. Select the Exchange group.
6. In the **Possible Owners** box, enter the names of both nodes in the cluster by selecting them and clicking **Add**.
7. In the **Resource Dependencies** box, add the Cluster Name and Physical Disk resources.
8. In the **Generic File Share Parameters** box, enter the path to the RFaxGate folder you created on the virtual drive. Be sure to use RFAXGATE as the share name.
9. Click **Finish** to add the resource to the group.

### Changing the mail directory paths

1. Open the Exchange System Manager.
2. For each node, open the Exchange Connector's Properties window and click the **Fax Server** tab.
3. Change the directory path from C:\Program Files\Rightfax\RFaxGate to \\ClusterName\RFAXGATE on both connectors.
4. Change the **Location of mail files** path to the RFaxGate folder on the cluster shared drive.
5. Click **OK** to re-set the gateway.

### Modifying the Windows Registry

When the Exchange Connectors are installed on the cluster nodes, they each point to different MTS queues. The registry needs to be modified to point them both to the correct queue.

1. Open the Windows Registry on the secondary node.
2. Navigate to HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\RFaxGate\Parameters.
3. Replace the computer name of the secondary node (delimited by brackets) with the computer name of the primary node for the following registry values:
  - ADSConnector
  - ADsPath
  - CommonName

**Important** Do not change the settings for HomeDSA.

4. Re-start the Exchange connector.

### Testing communication between the two servers

1. Ensure that the Exchange connector service on the active node and the gateway service on the RightFax server are running.
2. On the active node, navigate to the virtual drive where you created the RFXGATE file share.
3. Open the In and the Out folders in separate windows and set each view to **Details**.
4. Each folder should contain a file called Pulse.txt.
5. Check the “modified” time and date of each Pulse.txt file and compare them to the actual server time. The time and date of both Pulse.txt files should always be within one minute of the server because they should automatically update every 45 seconds.
  - If Pulse.txt in the In folder is not updating, ensure that the RightFax Connector service on the Exchange server is running.
  - If Pulse.txt in the Out folder is not updating, ensure that the E-mail Gateway service on the RightFax server is running.
  - If both Pulse.txt files are updating properly, send a test fax through the Exchange gateway.

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# Chapter 4

# Exchange 5.x and RightFax

# User Accounts

Sy

This feature of the Gateway for Microsoft Exchange lets you automatically synchronize user accounts in up to 150 Microsoft Exchange 5.x containers to your RightFax user accounts. Modifications to any Exchange 5.x user will automatically apply to the same (synchronized) user in RightFax. This means adding, removing, or modifying users need only be performed once but will apply to both applications, ensuring accuracy and saving time.

**Note** User synchronization through the Gateway for Microsoft Exchange applies only to Exchange 5.x servers. If you are running Exchange 2000, all database synchronization between RightFax and Exchange is managed through Microsoft Active Directory. For information on publishing RightFax servers to Active Directory, refer to the RightFax Administrator's Guide.

If you enabled **User Synchronization** when you configured the RightFax Connector for Microsoft Exchange (see "Enable User Synchronization" on page 18), all of your Exchange users have been automatically added as user accounts in RightFax.

After user accounts have been synchronized, modifications to those accounts should take place in Exchange only. This is because changes to Exchange user accounts are reflected in RightFax, but changes in RightFax are not reflected in Exchange. Any change made to a RightFax user account may be inadvertently undone during a later resynchronization with Exchange.

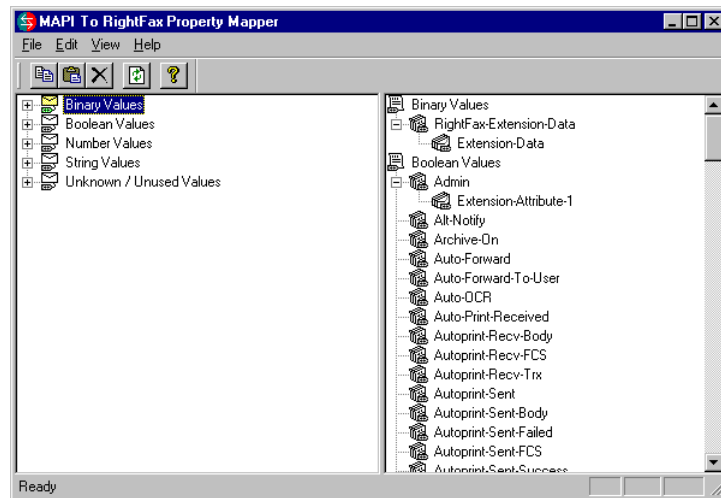
Each synchronized RightFax user account listed in Enterprise Fax Manager (described in the *RightFax Administrator's Guide*) includes a dot next to the user icon to remind you not to edit the account in RightFax.

## Using the MAPI-to-RightFax Property Mapper Utility

The MAPI-to-RightFax Property Mapper utility lets you associate Exchange user fields with RightFax user fields. During user synchronization, data will be automatically transferred from Exchange fields to the RightFax fields they are mapped to.

To run this utility, run the Microsoft Exchange Admin program. Select **Connections** from the **Configuration** container under the Exchange site where you installed the connector, and then double-click **RightFax Connector**. Click the **Administration** tab, and then **Advanced Options**, and then click **Configure Mappings**.

Figure 4.1 The MAPI to RightFax Property Mapper



To associate an Exchange field with a RightFax field, drag and drop the Exchange field in the left pane onto the desired RightFax field in the right pane. To remove an association, highlight the Exchange field in the right pane and press DELETE.

User fields are listed according to their type. Both Exchange and RightFax list binary values, boolean values, number values, and string values. Exchange includes an additional “unknown” field type. Exchange and RightFax fields of the same type map as-is. In some cases, you can map fields of different types. The following table lists how data will be mapped from Exchange to RightFax for all data types.

Table 4A Exchange/RightFax Field Type Mapping Behavior

	RightFax binary	RightFax Boolean	RightFax number	RightFax string
<b>Exchange binary</b>	As-is	Undefined	Undefined	Undefined
<b>Exchange Boolean</b>	Undefined	As-is	0 = Numeric 0 1 = Numeric 1	0 = String "0" 1 = String "1"
<b>Exchange number</b>	Undefined	0 = Boolean 0 Anything else = Boolean 1	As-is	Digits converted to text characters
<b>Exchange string</b>	Undefined	"1," "Yes," and equivalents = Boolean 1 "0," "No," and equivalents = Boolean 0	Digits in string converted to numeric digits	As-is
<b>Exchange unknown</b>	Undefined	Undefined	Undefined	Undefined

If you make changes to the field mappings, the changes will automatically apply to all users when the database is synchronized. To apply the changes to user accounts immediately, click **Re-Sync All Users Now** (see “Re-Sync All Users Now” on page 20).

For a definition of each RightFax field, right-click the field name to open a shortcut menu, and then click **Help**. For definitions of the Exchange fields, please refer to your Exchange documentation.

## Default Exchange/RightFax Shared Fields

When a new RightFax user is created automatically by Exchange, RightFax first makes a copy of the template user ID. This user ID is specified on the **User Creation** tab of the **Advanced Options** dialog box (page 18). Then RightFax makes the new user unique by copying six Exchange fields into equivalent fields in the RightFax user configuration.

Table 4B Exchange User ID Fields and Their RightFax Equivalents

This field in Exchange	Is copied to this field in RightFax
Alias (Mail Nickname)	User ID
Common Name	Distinguished Name
Display Name	User Name
Object Distinguished Name	Routing Info
Telephone — Fax	Last x digits to Routing Code/ Private Fax Number
Telephone — Office 1	Last x digits to Voice Mail Subscriber ID/ Voice Number

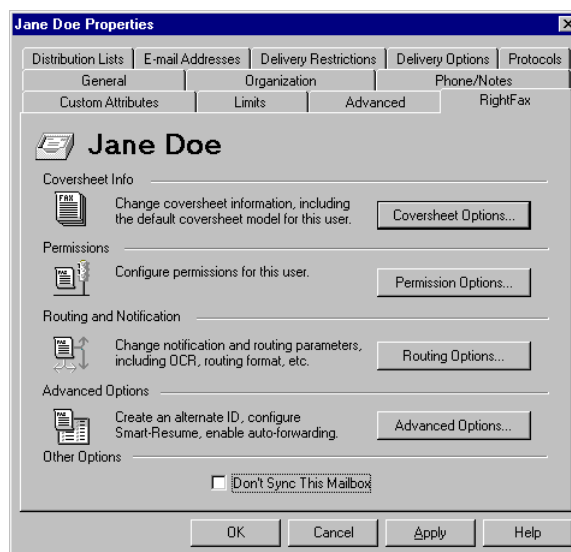
Because an Exchange client's **Common Name** cannot be changed after it is created, RightFax uses this field to "link" an Exchange user with its counterpart user in RightFax. In this way, all other fields in Exchange can be modified, including the **Alias**, but the Exchange user and its equivalent RightFax user will remain linked.

## The RightFax User Extension

After RightFax/Exchange user synchronization has been established, Exchange administrators can edit users' RightFax properties individually via Exchange Admin. Changes to a user's fax properties in Exchange always override that user's settings in RightFax. Changes made via the RightFax User Extension will be applied on the next synchronization.

To access the RightFax user extension, run the Exchange Admin program and double-click the user in the **Recipients** container to open the **Properties** dialog box. Click the **RightFax** tab.

Figure 4.2 The Individual Recipient RightFax Properties Dialog Box



The RightFax properties are divided into these categories:

- Coversheet options
- Permission options
- Routing options
- Advanced options

Click each button to open the **Properties** dialog box for the category.

In each **Properties** dialog box, click to clear the **Use Default** check box, and then complete all the information on the dialog box. You must then complete all of the options on the dialog box since any settings left incomplete will override (effectively undoing) the equivalent settings in RightFax. If the **Use Default** check box *is* selected, all of the fax properties displayed in the dialog box will default to the settings in RightFax, and all options on the dialog box will be unavailable.

All of the options in each of these categories correspond to a setting in the **User Edit** dialog box in Enterprise Fax Manager. For a description of each option in each of the **Properties** dialog boxes, refer to the *RightFax Administrator's Guide*.

If you select the **Don't Sync This Mailbox** check box, this Exchange user will not be synchronized to RightFax. In addition, if this Exchange user already exists as a user in RightFax, selecting this check box will cause the associated user ID in RightFax to be deleted.

■ ■ ■

# Chapter 5

## Configuring Outlook Users to Send and Receive Faxes

Sending an Outlook mail message to a fax number is similar to sending e-mail, except the message must be specially addressed. Text entered in the **Subject** field in an Outlook mail message will appear in the “Notes” section of the 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 added to the fax (see [Appendix B, “File Formats that Convert to Fax Format”](#)). Unsupported file attachments cannot be converted and will be ignored.

### Installing the RightFax Forms for Outlook

RightFax provides custom forms for your Microsoft Outlook users that expand and simplify the process of sending and receiving faxes with Outlook. Features such as an embedded fax viewer and billing code lookup tables allow Outlook to act as a truly unified messaging client for your users.

RightFax includes two types of Outlook forms: an advanced (full-featured) form and a standard form that includes fewer features.

**Note** Both the standard and advanced Outlook fax forms require Microsoft Outlook 98 or higher be running on the client workstation.

With the standard form, users can:

- Enter billing information.
- Send a cover sheet.
- Specify conversion options for PowerPoint, Excel, and Visio documents.
- Elect to preview a fax before sending, request a callback, and use smart-resume.
- Specify the resolution of the fax image.

The advanced form includes the same features, and users can:

- Select defaults for conversion options, cover sheets, and other sending information.
- Preview and select library documents to attach to the fax.
- Preview and select fax overlay forms.
- Look up billing codes.

Preview forms can be installed so that users can preview faxes in Outlook before sending them. The advanced preview form displays the fax in the RightFax viewer. The standard form utilizes the default viewer defined for the file type.

The forms can be installed and configured (“published”) for all Outlook clients at one time. To use the advanced form, it is also necessary to install and configure each client individually.

**To install the forms to all Outlook client computers**

Repeat the following steps for each form you want installed.

1. Ensure that your Exchange server has an Organizational Forms Library configured.

To check this in Exchange 5.x, run the Exchange Admin program and select **Forms Administrator** from the **Tools** menu. If you do not have an Organization Forms Library, add one by clicking **New**.

To check this in Exchange 2000, run the Exchange System Manager. Select **Public Folders** and then click the **Action** button and select **View System Folders** from the menu. Select the system folder **EFORMS REGISTRY**. If an Organization Forms Library is not listed, add one by right-clicking **EFORMS REGISTRY**, and then selecting **New > Organizational Form** from the shortcut menu.

2. Double-click the file name for the form to install. The following table lists all of the available forms.

**Table 5A File Names for Exchange Forms on the RightFax Server**

Form	Language	File name
Standard form	English	FormEN.oft
	French	FormFR.oft
	French-Canadian	FormFC.oft
	German	FormGR.oft
	Italian	FormIT.oft
	Portuguese	FormPR.oft
	Spanish	FormSP.oft
Standard preview form	English	FormENp.oft
	French	FormFRp.oft
	French-Canadian	FormFCp.oft
	German	FormGRp.oft
	Italian	FormITp.oft
	Portuguese	FormPRp.oft
	Spanish	FormSPp.oft

3. When prompted, click **Enable Macros**. This opens the form.
4. On the **Tools** menu, click **Forms** and then click **Publish Form As**. This opens the **Publish Form** dialog box.
5. In the **Look In** box, select **Organization Forms Library**.
6. In the **Display Name** box, type a descriptive name for the form, such as the names shown in the following table. The name will appear in the **Form Name** box. Verify the message class for the form, as shown in this table.

**Table 5B Display Names and Message Classes for Exchange Forms on the RightFax Server**

Form	Display name	Message class
Standard form	RightFax	IPM.Note.RightFax
Standard preview form	RightFax Preview	IPM.Note.RightFax.Preview

7. Click **Publish**.

## Installing the advanced fax form on a client computer

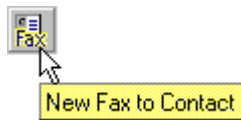
The advanced RightFax form for Outlook is installed on each individual Outlook client computer as an optional component during the RightFax client installation (described in the *RightFax Administrator's Guide*). If you did not install the Outlook forms during the standard client installation, run the client Setup program from the RightFax\Client\Win32 folder, and select the **Typical** installation option. If Outlook is installed on the client computer, the advanced Outlook form will be installed automatically.

## The Outlook Fax Extension

The Outlook Fax Extension is installed as part of the advanced fax form installation (see ["Installing the advanced fax form on a client computer"](#) on page 39). The extension adds a menu command and button to Outlook so that users can quickly address and send faxes. It also provides a command for viewing the status of faxes.

A button, **New Fax to Contact**, is added to the Outlook tool bar.

Figure 5.1 The New Fax to Contact Button



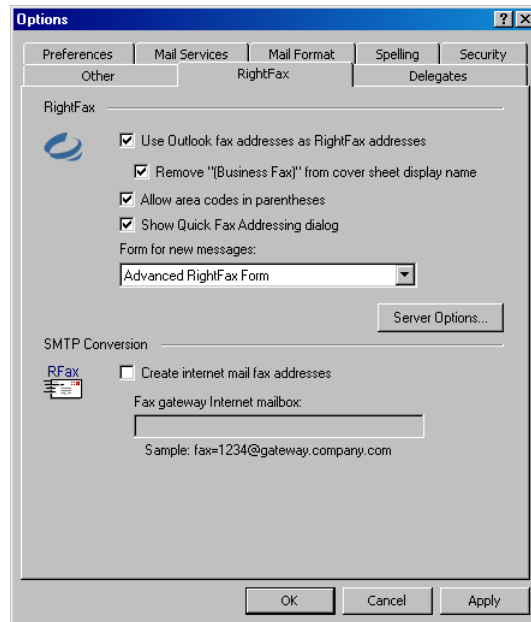
When the user clicks this button, a **Quick Fax Addressing** dialog box may appear depending on the user's RightFax configuration in Outlook (see ["Configuring the Outlook Fax Extension"](#) on page 40). This dialog box lets the user easily enter the necessary fax addressing information. After the addressing dialog box is completed, the fax form opens allowing the user to supply the body of the fax message, attach files or library documents, and specify any desired fax transmission options.

The extension adds the menu command **Realtime Fax Status** to the **Actions** menu so that users can view the status of the faxes stored in the RightFax mailbox. This is useful for users who want to check the status of faxes sent to or from Outlook. When this command is selected, a dialog box appears listing the folders and faxes in your mailbox. Click a folder name to view the faxes it contains. To view, delete, or release a fax held for preview, right-click the fax to open a shortcut menu, and then select the appropriate menu option. Right-click in the fax list and select **Refresh List** to view the most current status of each fax.

## Configuring the Outlook Fax Extension

The Outlook Fax Extension must be configured on each Outlook client. On the client computer in Outlook, navigate to the **Tools** menu and select **Options**. The **Options** dialog box opens. Select the **RightFax** tab.

Figure 5.2 The RightFax Extension Tab



**Use Outlook fax addresses as RightFax addresses.** Enables the gateway to send messages to Contacts who have a fax number only in the **Business Fax** field of their Contact information. If this check box is not selected, RightFax-specific fax addresses must be used in the **Business Fax** field.

**Remove “(Business Fax)” from cover sheet display name.** When faxing to Outlook clients, the name of the Contact information field where the fax number was retrieved (the **Business Fax** field) is automatically appended by Outlook to the fax recipient’s name. For example, your Outlook Contacts may receive faxes addressed like this:

Jane Doe (Business Fax)

Select this check box to automatically remove this text from your fax cover sheets, leaving only the recipient’s name in the **To:** field.

**Allow area codes in parentheses.** Prevents Outlook from automatically converting numbers below 299 inside parentheses in fax-bound mail addresses to escape characters. If you are going to send faxes via the gateway for Microsoft Exchange to area codes below 299, this check box *must* be selected.

**Note** Checking *Allow area codes in parentheses* will prevent you from adding special characters to e-mail addresses using escape codes.

**Show Quick Fax Addressing dialog.** When this option is selected, a **Quick Fax Addressing** dialog box will appear each time you create a new fax in Outlook. This dialog box lets you enter fax addressing information, which is then formatted automatically in the **To** line of your Outlook message.

**Form for new messages.** Specifies which Outlook form to open when you create a new fax. You can select the Outlook standard message form, or, if you have installed RightFax forms (see [“Installing the RightFax Forms for Outlook” on page 37](#)), you can select the advanced form.

**Server options.** Click this button to open a dialog that lets you specify the name of the RightFax server to connect to and your login information.

**Create internet mail fax addresses.** If you use the Outlook client with the SMTP/POP3 e-mail gateway instead of the gateway for Microsoft Exchange, selecting this check box tells Outlook to create SMTP/POP3 compatible fax addresses instead of Exchange formatted addresses. When this option is enabled, you must also enter the Internet mail address of the RightFax SMTP e-mail gateway. For example, if fax messages sent to the SMTP/POP3 gateway should be formatted as:

```
fax=555-1212/pn=Jane.Doe@faxgateway.company.com
```

then this field must read:

```
faxgateway.company.com
```

Because this feature uses IETF addressing convention, you must have the option **Use IETF Fax Addressing** checked in your SMTP/POP3 **E-mail Configuration** dialog box (described in the *RightFax Administrator's Guide*)

## Sending Faxes

When users select one of the RightFax forms to send a fax, a fax addressing dialog box opens, allowing the user to enter the addressing information. After the information is complete, the fax form opens, allowing the user to supply the body of the fax message, attach files or library documents, and specify any desired fax transmission options.

For instructions on entering this information, please refer to the *RightFax Client for Outlook Quick Reference Card* and the online help.

### Sending faxes using the standard fax form

After it has been installed, all Outlook users can open the standard form. The standard form is similar to the advanced form but does not include the lookup options.

1. In Outlook, select **Forms** from the **Tools** menu, and then click **Choose Form**.
2. In the Organizational Forms Library, double-click the display name defined for the standard form (such as "RightFax.") This opens the standard fax form for Outlook.

Figure 5.3 The Standard Fax Form in Outlook

The screenshot shows a window titled "Untitled - RightFax (HTML)" with a menu bar (File, Edit, View, Insert, Format, Tools, Actions, Help) and a toolbar. The main area is divided into several sections:

- Cost Recovery Information:** Two dropdown menus for "Bill Info 1" and "Bill Info 2", both set to "{Default}".
- Cover Sheet Information:** Four dropdown menus for "From Name", "Personal Voice Number", "Personal Fax Number", and "General Fax Number", all set to "{Default}".
- Cover Sheet Defaults:** A checked checkbox "Send Cover Sheets?", a dropdown for "Cover Sheet Model" set to "{Default}", and a "Fax Resolution" dropdown set to "{Default}".
- Form Overlay Code:** A text input field.
- Library Document IDs (Separate with Semicolons):** A text input field.
- Document Conversion Options:**
  - Power Point Specific Options:** "Output Type" dropdown set to "Slides", checked checkboxes for "Frame Slides?", "Fit To Page?", and "Force Visio Documents to Black and White?".
  - Excel Specific Options:** Checked checkboxes for "Force Black and White Output?", "Remove Cell Patterns?", "Only Fax: Active Sheet?", and "Include Charts in Fax?".
- Other Options:** Checked checkboxes for "Call Back Requested?" and "Use Smart-Resume?", and an unchecked checkbox for "Preview Fax Before Sending?".

For information on using the standard RightFax form for Outlook, please refer to the *RightFax Client for Outlook Quick Reference Card* and the online help provided with the form.

## Sending faxes using the advanced fax form

In order for a user to open the advanced form, the form must have been installed separately on the client machine (see “Installing the advanced fax form on a client computer” on page 39).

There are several ways to use the advanced form to send a fax:

- Click **New Fax to Contact**.
- On the **Actions** menu, click **New Fax**.
- To generate and send a new fax to a Microsoft Outlook Contact, click **Contacts** in your Outlook Folder List, select the contacts to receive the fax, and then click **New Fax to Contact** on the tool bar.

The form opens, addressed with the name and fax number of the contact. The fax number is taken from the contact’s **Business Fax** fields. If the **Business Fax** field is empty, the **Home Fax** field is used. If the **Home Fax** field is empty, the **Other Fax** field is used. If available, the contact’s company, city, state, billing information, and voice number will also be included in the fax address for display on the cover sheet.

Figure 5.4 The Advanced Fax Form in Outlook

For information on using the advanced RightFax form for Outlook, please refer to the *RightFax Client for Microsoft Outlook Quick Reference Card* and the online help provided with the form.

## Manually Addressing Outlook Messages to Fax Destinations

To address a fax from Outlook, you can type all the fax information (name, fax number, etc.) in the **To:** field using one of two supported addressing formats, or create custom fax addresses in either your Personal Address Book or the Global Address List.

### Using the FAX: addressing format

This is a simplified fax addressing type that lets users specify the destination name and fax number in the **To:** field in Outlook using the format:

```
[FAX: Name@FaxNumber]
```

For example, to send a fax from Outlook to Jane Doe at 555-1212, enter this address in the **To:** field:

```
[FAX: Jane Doe@555-1212]
```

Be sure to include the opening and closing square brackets.

You can restrict users' ability to use this addressing type in the RightFax Connector for Microsoft Exchange (see "FAX Addresses" on page 16)

### Using the RFAX: addressing format

This is an advanced fax addressing type supported by RightFax that lets users specify the destination name and fax number in the **To:** field in Outlook using the format:

```
[RFAX: Name@/FN=FaxNumber]
```

For example, to send a fax from Outlook to Jane Doe at 555-1212, enter this address in the **To:** field:

```
[RFAX: Jane Doe@/FN=555-1212]
```

Be sure to include the opening and closing square brackets.

You *must* include the recipient's name and fax number as in the previous example; however, with the RFAX addressing type, you can optionally include one or more additional parameters. The following table lists all fax destination parameters supported for Outlook. These addressing parameters can appear in any order but must always be entered after the '@' symbol in the address.

Table 5C RFAX Type Outlook Fax Addressing Parameters

Parameter	Definition	Example
/AN=	Billing code 1	/AN=1111
/CI=	Recipient city/state	/CI=Tucson, AZ
/CO=	Recipient company name	/CO=Acme, Inc.
/FN=	Destination fax number	/FN=555-1212
/MN=	Billing code 2	/MN=2222
/VN=	Recipient voice number	/VN=555-4567

**Example** [RFAX:Jane Doe@/FN=555-1212/VN=555-4567/CI=Tucson, AZ/CO=Acme Inc./AN=1111/MN=2222]

You can restrict users' ability to use this addressing type in the RightFax Connector for Microsoft Exchange (see "RFAX Addresses" on page 16).

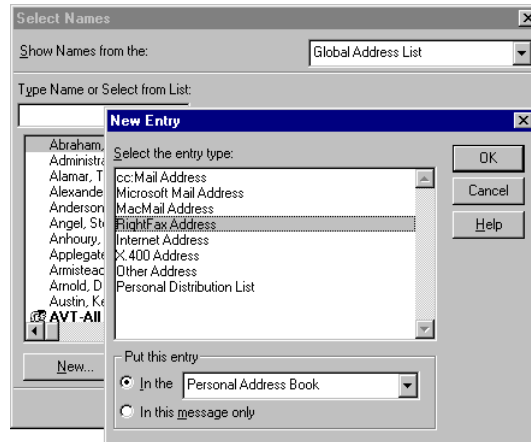
## Adding fax entries to your personal address book or the global address list

If you have some fax contacts who you send to regularly, it may save time to add their fax addressing information to one of your phonebooks, rather than manually entering their fax destination each time.

### To add fax address entries to a phonebook

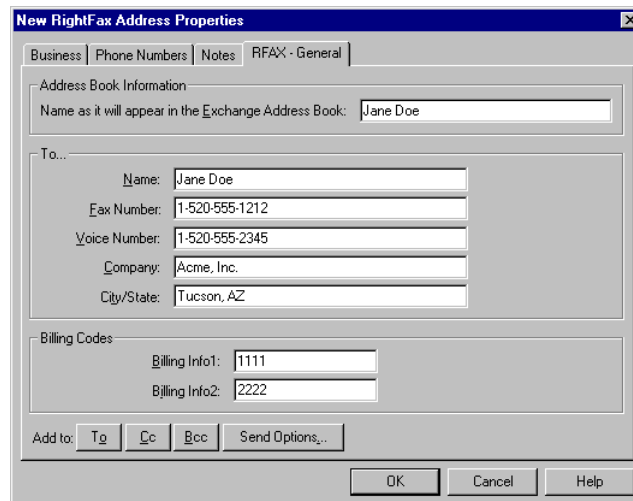
1. In Outlook, create a new message and click **To:**. This opens the **Select Names** dialog box. Click **New** to open the **New Entry** dialog box.

Figure 5.5 The New Entry Dialog Box in Outlook



2. From the list of templates, select **RightFax Address**, and then select the address book for the new entry. Click **OK**. This opens the **New RightFax Address Properties** dialog box.

Figure 5.6 The New RightFax Address Properties Dialog Box



3. Fill in the recipient's fax information. The name you enter under **Address Book Information** is the recipient's name as it will appear in your address book. It is not included on any sent faxes.
4. When you have entered all the recipient's fax information, click **OK** and complete the e-mail message. The new entry will now be available in the address book you specified.

## Receiving Incoming Faxes via E-mail

The RightFax e-mail gateway for Exchange lets RightFax users 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 5.7 The Inbound Routing Tab

2. In the **Routing Type** box, select “Microsoft Exchange.”
3. In the **File Format** list, click “TIFF-G3” as the format RightFax will use for the fax attachment.
4. In the **Routing Info** box, enter the user’s Outlook Display Name, Alias, or Distinguished Name.
5. If you have installed Outlook forms (see “Installing the RightFax Forms for Outlook” on page 37) select the form you want to route incoming faxes to in the **Received Fax Routing Form** box. Select **Default** to use the form set in the e-mail gateway configuration in Enterprise Fax Manager (see “Adding and Configuring the Gateway for Microsoft Exchange” on page 6).
6. Select the **Delete After Routing** check box only if you want to delete the fax from the user’s RightFax mailbox after it is routed to Exchange. If RightFax cannot route a fax to the destination e-mail mailbox, it will leave the fax in the user’s RightFax mailbox regardless of how this option is set.

### Breaking up large faxes

Some Exchange servers define a maximum file size for inbound messages. By default, if a fax image attached to an inbound mail message exceeds this maximum file size, an error is logged and the message is not sent.

In order to bypass this limit, RightFax can be configured to automatically break fax images into multiple files and send them as separate mail messages. To do this, add a new DWORD Windows registry entry “MaxMessageSize” under HKEY\_LOCAL\_MACHINE\Software\RightFax\Gateway\Gateway#. Set the value of this key to the maximum file size in Kb. Any faxes that exceed this size will automatically be divided into multiple faxes and multiple mail messages.

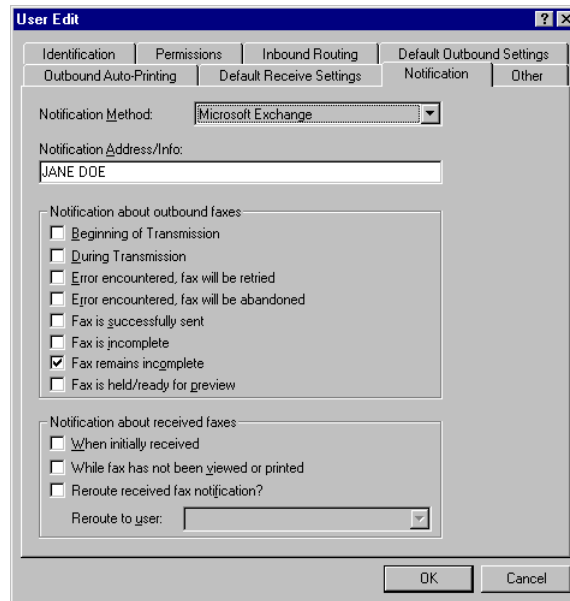
## E-mail Notification of Received Faxes

The RightFax e-mail gateway for Exchange can be used for *notification* of received faxes whether or not the gateway is configured to actually 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 5.8 The Notification Tab



2. In the **Notification Method** list, click **Microsoft Exchange**.
3. In the **Notification Address/Info** box, enter the Outlook user's Display Name or Alias. Click **OK** to save the new notification settings.

### Group notification

The notification method can be configured for an entire RightFax group by editing the group ID properties in Enterprise Fax Manager and setting the group **Notification Type** to Microsoft Exchange.

## Customizing the subject lines of Exchange user notifications

The subject line of each user notification message in Exchange can be customized by adding a Windows registry setting to the fax server. For each message to customize, add a new string registry entry under HKEY\_LOCAL\_MACHINE\Software \RightFax\Gateway\Gateway#. The following table lists each registry entry, the type of notification the message applies to, and its default text value. Some values let you include variables as part of the string. In each case the variable and its definition is listed.

Table 5D Custom Exchange Subject Line Registry Settings

Registry key	Defines the subject line of	Default value
ExchangeMsgs_0	Received Outlook messages that contain newly received faxes	A new fax has arrived from ~1 (Part ~2 of ~3). ~1 = CSID of originating fax machine ~2 = Fax number (in fax is broken into multiple parts) ~3 = Total fax parts (in fax is broken into multiple parts) ~4 = Fax number (in fax is broken into multiple parts) ~5 = Total fax parts (in fax is broken into multiple parts) ~6 = Fax number (in fax is broken into multiple parts)
ExchangeMsgs_1	Notification that a sent fax had an incorrect fax address	Your fax has not been sent because the addressing information was incorrect.
ExchangeMsgs_2	Notification that a sent fax had an invalid fax address	Valid fax destination information could not be found in your mail message. The message has been discarded.
ExchangeMsgs_3	Notification that a sent fax had an invalid e-mail address	The gateway was unable to validate the e-mail address of the message sender. The message has been discarded.
ExchangeMsgs_4	Notification that a sent fax was not sent due to an error during processing	An error occurred while trying to process your message. Please try again or contact your system administrator. The message has been discarded.
ExchangeMsgs_5	Notification that a sent fax was not sent due to an error during transmission	An error occurred while trying to send your message. Please try again or contact your system administrator. The message has been discarded.
ExchangeMsgs_6	Notification that a sent fax marked for preview is ready to view	Your fax to ~1 is ready for previewing. ~1 = Recipient's name
ExchangeMsgs_7	Notification that a sent fax has not been sent	Your fax has not been sent.
ExchangeMsgs_8	Notification that a sent fax had no body content	There is no message body.

## Including the Fax ID in the E-mail Notification

The e-mail notification of a received fax in Microsoft Outlook can include the unique ID of the fax. The unique ID appears in the subject line of the e-mail. To change the format of the unique ID, see the chapter on routing inbound faxes in the *RightFax Administrator's Guide*.

### To configure e-mail notification messages to include the fax ID

For the unique ID of the fax to appear in e-mail notification messages, you must modify the notification messages on the RightFax server.

1. In Enterprise Fax Manager, select the RightFax server to modify.
2. Under **Service Name**, double-click **RightFax Server Module**. The **Server Configuration** dialog box opens.

3. On the **Custom Messages** tab, modify the **New Fax** message. Type a message that includes the ~5 variable, which is the unique ID of the fax. The maximum length of a notification message is 200 characters.

For example, enter the message A new fax has arrived. Fax ID ~5.

## Embedded Codes in E-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 included in your fax. Embedded codes may be written in either upper or lower case.

Embedded codes must always use a native printer font. This is because when the mail message 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 fax 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.

**Note** Windows 2000 may add unexpected spacing or other characters to embedded code strings even when using a native printer font. For embedded codes in documents on Windows 2000 machines, RightFax recommends using the "Courier" native printer font only.

Embedded codes can appear anywhere in the body of the mail message (they will not work in the **Address** or **Subject** fields). Embedded codes cannot line wrap and any embedded code that is so long that it wraps to a second line will be ignored.

For a description and example of each e-mail compatible embedded code see [Appendix A, "E-mail Compatible Embedded Codes"](#).

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# Appendix A

## E-mail Compatible Embedded Codes

**E**Embedded codes are special faxing instructions that you insert directly into fax-bound e-mail messages. You can use embedded codes to include fax cover sheet information, attach library documents, specify a time to send the fax, 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 include the library document "Priceguide" along with the text of the e-mail is written as:

```
<LIBDOC2:PRICEGUIDE>
```

RightFax removes all embedded codes from the e-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 may be written in either upper or lower case and embedded codes always work the same way regardless of the e-mail application used to create the document.

Although you can use any fonts you want in the text of your e-mail messages, embedded codes *must always* use a native printer font. This is because when the file is converted to PCL5 format, all other font types are encoded as graphic images. Only native printer fonts are stored in the PCL file in their original text format. 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.

**Note** *Windows 2000 may add unexpected spacing or other characters to embedded code strings even when using a native printer font. For embedded codes in documents on Windows 2000 machines, RightFax recommends using the "Courier" native printer font only.*

Embedded codes can be placed anywhere in the e-mail message that you will be faxing. They cannot line wrap and any embedded code statement that is so long that it wraps to a second line will be ignored.

This appendix lists only embedded codes that are recognized by the e-mail gateways. RightFax supports several additional embedded codes when faxes are generated from native applications. For a complete list of embedded codes supported by RightFax, please refer to the *RightFax Administrator's Guide*.

## ATDATE (AT\_DATE)

**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 (described later), 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 automatically be scheduled to send at 3:30 p.m. tomorrow.

Maximum field length: 10 characters

**Example** <ATDATE:9-15-99>  
<AT\_DATE:+2>

## ATTIME (AT\_TIME)

**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 times are entered in either 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

**Example** <RFSAP\_ATTIME:10:00p>  
<RFSAP\_AT\_TIME:+2>

## BILLINFO1 (BI1)

**Format** <BILLINFO1:code>

Assigns a billing code to the fax. The billing code will be sent but it will not be validated by RightFax.

Maximum field length: 15 characters

**Example** <BILLINFO1:4444>

## BILLINFO2 (BI2)

**Format** <BILLINFO2:code>

Assigns a second billing code to the fax. The billing code will be sent but it will not be validated by RightFax.

Maximum field length: 15 characters

**Example** <BILLINFO2:5555>

## CHANNEL

**Format** <CHANNEL:channel#>

Sends the fax only on the specified channel of the fax board. Specify a number corresponding to the channel to use. Set the channel number to 0 (zero) to use any available channel.

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.

Maximum field length: N/A

**Example** <CHANNEL:3>

## COVER

**Format** <COVER>

Automatically 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 (see "FCSFILE" on page 51), this code will automatically use the default cover sheet file.

Maximum field length: N/A

## DELETE (AUODELETE)

**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 (AUODELETEALL)

**Format** <RFSAP\_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

## FCSFILE

**Format** <FCSFILE:file name>

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). Fine resolution is recommended for faxes with detailed graphics and faxes that will be OCRred. This code overrides the default fax resolution set in the user's FaxUtil mailbox.

Maximum field length: N/A

## FROMFAXNUM (FROM\_FAXNUM)

**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 (FROM\_GENFAXNUM)

**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 (FROM\_GENPHONE)

**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>

## FROMPHONE (FROM\_PHONE)

**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 may be specified, each as a separate LIBDOC code.

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 may be specified, each as a separate LIBDOC2 code.

Maximum field length: 21 characters

**Example** <LIBDOC2:INFOPACK1>

## 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 (100 × 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

## 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 automatically be sent with “normal” priority.

Maximum field length: N/A

**Examples** <PRIORITY:HIGH>  
<PRIORITY:N>

## 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

## UNIQUEID

**Format** <UNIQUEID:faxID>

Specifies a unique ID for the fax instead of having one automatically generated by RightFax. Custom IDs may be used for external document tracking systems.

Maximum field length: 15 characters

**Example** <UNIQUEID:XYZ120396>

■ ■ ■

# 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 using the Send To function in Windows or by sending as file attachments to a fax message.

Table BA Document File Formats

Application or file format	Supported versions
Access	Versions through 2.0
AMI/AMI Professional	Versions through 3.1
ANSI text	All versions
ASCII text	All versions
Binary group 3 fax	All versions
BMP (including RLE, ICO, CUR & OS/2 DIB)	Windows
CDR (if TIFF image is embedded in it)	Corel Draw versions 2.0 through 9.0
dBASE	Versions through 5.0
DCX (multi-page PCX)	Microsoft Fax
DRW (Micrografx Designer)	Version 3.1
EPS (if TIFF image is embedded in it)	Encapsulated PostScript
Freelance for Windows	Version 1.0, 2.0, 96, 97, and Millennium
GIF	CompuServe
HTML	Versions through 3.0
JPEG	All versions
Lotus 1-2-3 (DOS & Windows)	Versions through 5.0
Lotus 1-2-3 (Windows)	Versions through 97
Lotus 1-2-3 Charts (DOS & Windows)	Versions through 5.0
MAC	MacPaint
Microsoft Excel (Macintosh)	Versions 3.0 through 4.0, 98
Microsoft Excel (Windows)	Versions 2.2 through 2000
Microsoft Excel Charts	Versions 2.x through 7.0
Microsoft PowerPoint (Macintosh)	Version 4.0, 98
Microsoft PowerPoint (Windows)	Versions through 2000
Microsoft Windows Works	Versions through 4.0

Table BA Document File Formats (continued)

Application or file format	Supported versions
Microsoft Works (DOS)	Versions through 2.0
Microsoft Write	Versions through 3.0
Microsoft Word (DOS)	Versions through 6.0
Microsoft Word (Macintosh)	Versions 4.0 through 98
Microsoft Word for Windows	Versions through 2000
Microsoft WordPad	All versions
Microsoft Works (Macintosh)	Versions through 2.0
Paradox (Windows)	Versions through 1.0
PCX bitmap	PC Paintbrush
PICT1 & PICT2 (Raster)	Macintosh Standard
QuattroPro for Windows	Versions through 9.0
Microsoft Rich Text Format (RTF)	All versions
TIFF	Versions through 6.0
TIFF CCITT Group 3 & 4	Fax Systems
Unicode Text	All versions
WMF	Windows Metafile
WordPerfect (DOS)	Versions through 6.1
WordPerfect (Macintosh)	Versions 1.02 through 3.0
WordPerfect for Windows	Versions through 9.0
WordPerfect Graphics (WPG and WPG2)	Versions through 2.0

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