

RightFAX[®]

7.2 OCR Router, OCR Converter, and PDF Module Guide

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Chapter 1: Overview of the OCR and PDF Modules

The RightFAX OCR Routing™ module uses optical character recognition technology to convert the cover page of a received fax from graphic format to text format, then scans the text for recognized words. Each word or phrase on the cover page is compared to a custom routing table containing possible recipient names. If a match is found, the fax will be associated with an individual RightFAX user ID and routed to that user.

The OCR Converter module uses advanced optical character recognition technology to convert all the pages of a received fax from a graphic format to a text format. This allows fax recipients to easily edit the content of their received faxes.

The RightFAX PDF module enables conversion of level 1 and level 2 PostScript® and PDF (Portable Document Format) documents to TIFF format on the RightFAX server for faxing. The RightFAX server automatically determines when the document to convert is PostScript, PDF, or the standard PCL-5 format so no configuration on individual user workstations is necessary. When this module is installed, RightFAX clients can print PostScript and PDF documents directly to the RightFAX print queue as well as send them as file attachments to e-mail messages when using one of the RightFAX E-mail Gateways.

Both OCR modules and the PDF module are included with the RightFAX Enterprise Suite Server. For all other RightFAX servers, these modules are sold separately.

Using This Guide and Other Learning Tools

The *RightFAX OCR Router, OCR Converter, and PDF Module Guide* is designed for use by RightFAX administrators who will be installing and configuring either of the OCR and/or PDF modules. This guide assumes that you have a significant working knowledge of the RightFAX server and your computer network, as well as your servers' operating systems and the conventions used by software applications designed for those operating systems.

In addition to this guide, RightFAX provides several additional sources for information on getting the most out of your RightFAX software.

Resources for the RightFAX Administrator

RightFAX Administrator's Guide. This guide contains detailed instructions on installing and configuring RightFAX for both the server and client workstations. This guide is specifically designed for RightFAX administrators and includes the technical information necessary to manage the fax server.

RightFAX Docs-on-Demand and TeleConnect Guide. This guide is designed for use by RightFAX administrators who will be installing and configuring the Docs-on-Demand™ and/or TeleConnect™ modules. This guide provides information on installing, using, managing, and integrating the RightFAX Docs-on-Demand and TeleConnect modules with your RightFAX software.

RightFAX Fax Board Guide. This guide provides installation, testing, and configuration instructions for all supported fax hardware.

RightFAX Gateway for Microsoft Exchange, Gateway for Lotus Notes, and Web Client Guide. This guide is included when you purchase RightFAX Enterprise Suite, the Microsoft® Exchange or Lotus® Notes® Gateway™, or the Web Client™ optional module. This guide provides information on installing, using, managing, and integrating the RightFAX E-mail Gateways and RightFAX Web Client module with your RightFAX software.

RightFAX OCR and PDF Modules Guide. This guide is included when you purchase RightFAX Enterprise Suite™, either of the OCR modules, or the PDF module. This guide provides information on installing, using, managing, and integrating these modules with your RightFAX system.

RightFAX SNMP Alerting Module Guide. This guide is designed for use by RightFAX administrators who will be installing, configuring, and using the RightFAX SNMP Alerting software for realtime monitoring of the RightFAX server via SNMP-capable network monitoring applications.

Resources for the Production Fax Administrator

RightFAX Connector for SAP R/3 Guide. This guide is designed for use by RightFAX and SAP R/3 administrators who will be installing and configuring the SAP Connector and SAP clients who will be sending and receiving faxes via the Connector.

RightFAX Filter for Production Guide. This guide is designed for RightFAX and host application administrators who will be installing and configuring the

Filter for Production and client applications that will be sending faxes to RightFAX via the Filter.

RightFAX InternetLink Module Guide. This guide is designed for RightFAX administrators who will be installing and configuring the InternetLink module for the RightFAX Production Integration Module. This guide includes all the technical information necessary to operate the InternetLink Module for delivery of production faxes via the Internet.

RightFAX Integration Module Guide. This guide is designed for use by RightFAX administrators who will be installing and configuring the Integration Module on the RightFAX server for advanced automation of their production fax processes.

AVT Consulting Services. AVT Consulting Services provides hands-on expertise in the installation, setup, and customization of the RightFAX software. They will assess your requirements and work either on-site or remotely to ensure compliance with your organization's pre-determined project scope, defined boundaries, timelines, benchmarks, and closure expectations.

Resources for RightFAX Users

Because your RightFAX server(s) may support dozens, hundreds, or even thousands of fax users, RightFAX has designed its end-user documentation to be thorough, easy-to-use, and easily accessible. All the information your fax users need to operate their client applications is included in the online help installed with the application. For users who prefer to reference written materials, RightFAX also provides Quick Reference Cards for all its major client applications. These useful cards are compact and can be easily distributed throughout even the largest organizations.

Online Help. RightFAX online help is a convenient and easy-to-use source of assistance. You can access the online help by selecting the **Help** menu in any FaxUtil or Enterprise Fax Manager window. Online help lets you scan for help by topic, or search for key words and terms. In addition, many RightFAX dialogs include a "What's This?" Help button **[?]** in the top right. Click this button, then click on any field in the dialog for a description of that specific field.

Quick Reference Cards. These cards give you quick and easy access to the most common fax management features of the FaxUtil, Microsoft Exchange, Lotus Notes, and Web Client fax client applications.

RightFAX Training

Everyone knows that training plays a key role in the successful implementation of information technology. RightFAX training gives you the skills to optimize your RightFAX solution. Our comprehensive technical, administrative and user training programs produce full utilization and understanding of RightFAX products. Regular classes are held at the state-of-the-art RightFAX Training Center in Tucson, Arizona throughout the year, or you can choose the convenience of training at your own location or at various regional locations. Customized training is also available to meet your specific needs. Training materials and computer-based training tools are also available. For more information on RightFAX training, please visit our Web site at www.rightfax.com/training, or call us at (520) 320-7098 and let us help you develop a customized training plan for your organization.

Document Conventions

Fonts and icons are used consistently throughout this guide to make it as easy as possible to read and understand.

Italics are used whenever referring to another chapter or section in this guide, or when referring to other user guides.

Boldface is used to indicate a dialog or menu name, a field or option listed on a dialog, or a menu option.

“Quotes” are used to indicate the name of an item in a list box or pull-down menu on a dialog.

Courier font is used to indicate text entered in a dialog field or on a command line, or written in an ASCII or other text file. This font is also used to set examples off from the surrounding text. If the text contains variables (e.g., a command line with variable parameters), the variables are ***Italicized*** and then described in the subsequent paragraph.

Directory and file names are written in CAPITALS to set them apart from the surrounding text. Directory names are always preceded with a backslash character (\) and file names always include both the name and extension.

Special notes, tips, and warnings appear throughout this guide and always appear in the left margin like the example here. An icon at the beginning of the paragraph indicates its purpose. A lower-case “i” indicates a note or other information that may only be important under certain circumstances. A question mark indicates a useful tip or troubleshooting information. An



Special notes, warnings, and tips like this one are displayed throughout this guide. Each is preceded by an icon indicating the importance of the information.

exclamation point indicates a warning. Warnings should always be read carefully before proceeding.

Technical Support

Your *Customer Support Guide* includes detailed information about the support options available to RightFAX customers. Please fill out the *RightFAX Software Warranty & Registration Card* and return it immediately. If you have technical questions, please contact your organization's RightFAX administrator or network administrator before calling technical support.

RightFAX Technical Support:

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Suite 120
Tucson, Arizona 85715 USA

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

5:00 a.m. to 6:00 p.m. MST, Monday through Friday

6:00 a.m. to 6:00 p.m. MST, Saturday

Support Plan Sales & Administration: (520) 320-7000

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chapter

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Chapter 2: The OCR Router

The RightFAX OCR Router uses advanced optical character recognition technology to convert the cover page of a received fax from a graphic format to a text format, then scans the text for recognized words and phrases. Each word or phrase on the cover sheet is compared to a custom routing table containing possible recipient names. If a match is found, the fax will be associated with an individual RightFAX user ID and routed to that user. Optical character recognition with the OCR Router can be performed only on printed text and does not work with handwritten text.

For large organizations, OCR routing should be used only as a backup for other inbound fax routing methods (described in the *RightFAX Administrator's Guide*). With other routing methods, mailboxes can be configured that receive all "lost" faxes where the intended recipient cannot be determined. These lost-fax mailboxes can be configured for OCR routing to maximize your automatic inbound routing functionality. However, because large organizations can have several members with the same or very similar names, OCR routing is not recommended as a primary routing method.

Installing the OCR Router

All OCR Router files are installed to the RIGHTFAX\OCR directory on the RightFAX server. The Setup program also creates a sample ROUTE.TXT file in the \RIGHTFAX\WORKSRV# directory for the WorkServer number you select to execute the OCR process.

No installation or configuration on client workstations is required.

To install the OCR Router:

1. Insert the OCR Router CD into the RightFAX server. If Autorun is not enabled on this machine, run the install program by selecting **Run** from the **Start** menu and type:

```
D:\SETUP
```

(Where *D*: is the drive letter of your CD-ROM.)

If you have the RightFAX Enterprise Suite CD, you can install the OCR Router directly from your CD. Run the Setup program and select "RightFAX Enterprise Suite" from the opening menu. Follow the prompts

to the **RightFAX Setup Selection** dialog. Select **Add a New Component** and check the **OCR Router** option.

2. When prompted to select an OCR WorkServer, specify which WorkServer you want to execute the OCR process.
3. Setup will copy the router's files to the RightFAX server. When all the necessary files have been copied, click **Finish** to complete the installation and exit the Setup program.

Configuring RightFAX to Perform OCR Routing

Once the OCR Router is installed, you can configure RightFAX for OCR routing of received faxes. First you must configure a "central" mailbox from which the faxes will be routed, then you must create a custom Routing Table that contains RightFAX user IDs and their associated text. When a fax arrives in the central mailbox, it is automatically converted to text and checked against the routing table for a match. If a match is found, the fax is routed. If no match is found, the fax remains by default in the central mailbox.

Configuring the OCR Central Mailbox

In order to route OCR'd faxes to their intended recipients, the faxes must arrive in one or more "central" mailboxes. These are fax mailboxes that all incoming faxes go to, get OCR'd, and from there are routed to users' mailboxes.

For *multiple* central mailboxes, each mailbox should have a routing code that corresponds to a channel extension set up in the BoardServer. Usually, however, one mailbox performing OCR routing is sufficient. To configure a *single* central mailbox, edit the mailbox owner's user ID in Enterprise Fax Manager, click the **Inbound Routing** tab, and enter "0" (zero) in the **Routing Code** field. This will cause all incoming faxes to route into that mailbox by default.

For each central mailbox you create, edit the mailbox's user ID in Enterprise Fax Manager, click the **Inbound Routing** tab, and select "OCR" in the **Routing Type** field. This tells the mailbox to perform OCR on each received fax and route accordingly.



Only the central mailbox should have its Routing

Type set to OCR. Do not set each RightFAX user mailbox to OCR or they will attempt to reroute all received faxes, potentially creating endless routing loops.

Creating the OCR Routing Table

The OCR routing table is used by the OCR router to link text in the fax with RightFAX user IDs for routing. On your RightFAX server, create an ASCII file

called ROUTE.TXT in the \RIGHTFAX\WORKSRV# directory (where # is the WorkServer number you added OCR functionality to). If you added OCR to multiple WorkServers, you must create this ASCII file in each WorkServer's directory.

The ROUTE.TXT file is your OCR routing table. Each line must contain a separate entry in the format:

UserID MatchingText

where *UserID* is the RightFAX user ID to route to and *MatchingText* is the OCR'd text that, when found, will route the fax to that user. The user ID and matching text must be separated by a single space, and the matching text *may* contain spaces and other special characters. Here is an example of a short OCR routing table:



Because OCR routing requires an exact match between your OCR routing table and the OCR'd text, you should remove any blank spaces at the end of your OCR routing table entries. If the matching text includes trailing spaces, those spaces will be required as part of the text to match.

```

ADJ Aaron
ADJ Aaron Jones
BDS Bill Street
DRR David Renner
DRR Renner

```

The matching text must be matched exactly in order to route the fax. In this example, a match on the word "Jones," if not preceded by "Aaron," would *not* be routed.

Because RightFAX scans the routing table from top to bottom, routing the fax to the first match, the order in which you list user IDs may be important. You may want to place your highest priority user IDs (executive management, for example) at the top of the list so they will be sure to receive their faxes even if matching-text conflicts exist with other users on your network. This, however, also increases their likelihood of receiving misrouted faxes.

Creating Alternate Routing Tables

When routing faxes, OCR central mailboxes by default use a routing table called ROUTE.TXT located in the \WORKSERVER# directory of the WorkServer performing the OCR conversion. In cases where you have set up multiple OCR central mailboxes, you can specify a different routing table file name for each mailbox. This lets each central mailbox use a separate routing table for maximum routing accuracy.

To specify a central mailbox's routing table file name, edit the mailbox's user ID in Enterprise Fax Manager, click the **Inbound Routing** tab, and type the file name in the **Routing Info** field. The new routing table file must be located in

the same \WORKSERVER# directories and have the same format as the ROUTE.TXT OCR routing file.

When you specify a routing table file name in the central mailbox's **Routing Info** field, you can also specify a RightFAX user ID to which unmatched faxes will automatically route. After the file name, type a comma followed by the RightFAX user ID of the user to route the unmatched faxes to.

For example, if you have set up a special OCR central mailbox that only receives and routes faxes to the Sales department, you can specify a routing table called SALES.TXT and have all unmatched faxes automatically route to Jane Doe the Sales Manager (RightFAX user ID, JANED) by entering this line in the **Routing Info** field of the Sales central mailbox:

SALES . TXT , JANED

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chapter

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Chapter 3: The OCR Converter

The RightFAX OCR Converter™ uses optical character recognition technology to convert received faxes from a graphic format to a text format, then saves a copy of the text file with the fax. This allows fax recipients to easily edit and work with the content of their faxes. Fax clients can be set to automatically convert all received faxes, or may choose to convert only selected faxes.

Optical character recognition with the OCR Converter can be performed only on printed text and does not work with handwritten text.

Installing the OCR Converter

All OCR Converter files are installed to the RightFAX\OCR directory on the RightFAX server. No installation on client workstations is required.

To install the OCR Converter:

1. Insert the OCR Converter CD into the RightFAX server. If Autorun is not enabled on this machine, run the install program by selecting **Run** from the **Start** menu and type:

```
D:\SETUP
```

(Where *D*: is the drive letter of your CD-ROM.)

If you have the RightFAX Enterprise Suite™ CD, you can install the OCR Converter directly from your CD. Run the Setup program and select “RightFAX Enterprise Suite” from the opening menu. Follow the prompts to the **RightFAX Setup Selection** dialog. Select **Add a New Component** and check the **OCR Converter** option.

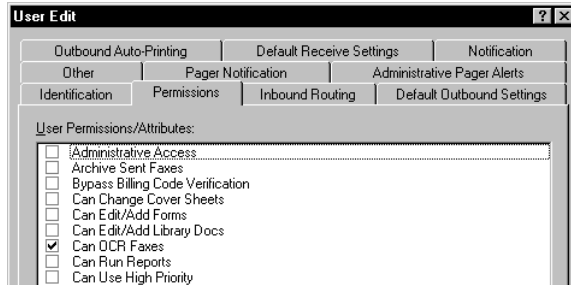
2. When prompted to select an OCR WorkServer, specify which WorkServer you want to execute the OCR process.
3. Setup will copy the Converter’s files to the RightFAX server. When all the necessary files have been copied, click **Finish** to complete the installation and exit the Setup program.

Configuring RightFAX Users for OCR Conversion

Once the OCR Converter is installed, you can configure RightFAX users for OCR conversion of received faxes. Each individual RightFAX user must be given rights to perform OCR conversion. Because the OCR process is extremely processor intensive, you may choose to restrict OCR rights if the machine on which the WorkServer handling OCR is installed does not have sufficient free resources.

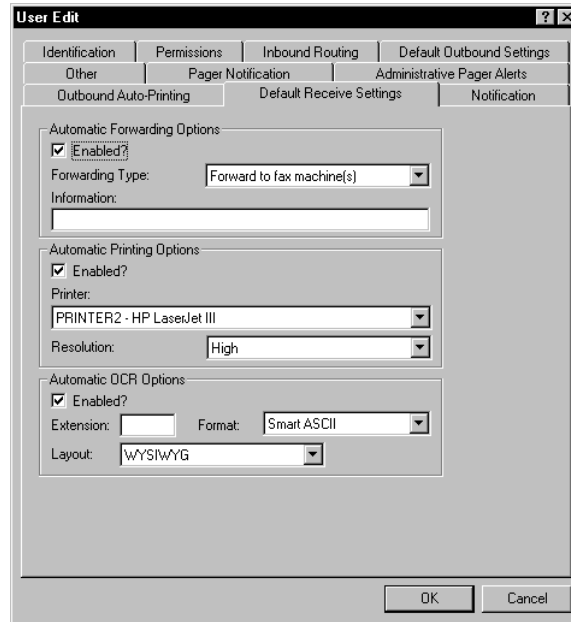
Granting Users OCR Access in Enterprise Fax Manager

To give a RightFAX user OCR rights, run Enterprise Fax Manager, and double-click the user to open the **User Edit** dialog. Click the **Permissions** tab and check the option **Can OCR Faxes**:



Configuring Users for Automatic OCR Conversion of All Received Faxes

To configure a user for automatic OCR conversion of all received faxes, run Enterprise Fax Manager, and double-click the user to open the **User Edit** dialog. Click the **Default Receive Settings** tab:



Under **Automatic OCR Options**, check the **Enabled** option to automatically convert all received faxes using OCR. Enter a three-letter file extension for the output file in the **Extension** field.

In the **Format** field, select the text format used to interpret your fax pages. “ASCII” produces a plain text file. “Smart ASCII” approximates the original format. “RTF” (Rich Text Format) preserves fonts and formatting but is only available to Windows clients.

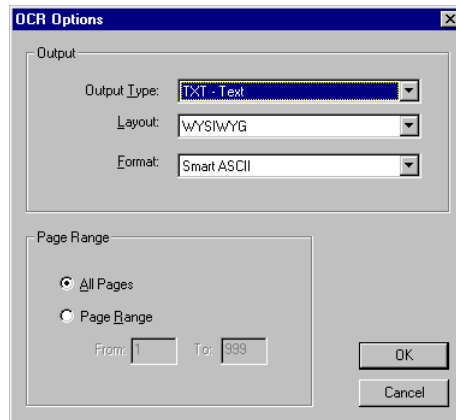
In the **Layout** field, select how you want the text to be formatted on the page. “WYSIWYG” will try to read the fax in the layout it sees. If, for instance, RightFAX sees that the fax has three columns, it will try to read the document in column style. “Left Justified” displays the text starting from the left margin of the fax.

Configuring OCR Options in FaxUtil

The RightFAX fax client, FaxUtil, also includes several OCR options that can be set by individual fax clients. You must install the FaxUtil client on each user's workstation for these options to be available.

Converting Individual Faxes in FaxUtil

RightFAX users who have been granted permission to OCR received faxes can convert individual faxes as needed from their FaxUtil mailboxes. To convert a received fax in FaxUtil, highlight the fax to convert and select **OCR** from the **Fax** menu. This opens the **OCR Options** dialog:



Output Type. Select the file extension to use when creating the text file.

Layout. Select how you want the text to be formatted on the page. "WYSIWYG" will try to read the fax in the layout it sees. If, for example, RightFAX sees that the fax has three columns, it will try to read the document in column style. "Left Justified" displays the text starting from the left margin of the fax.

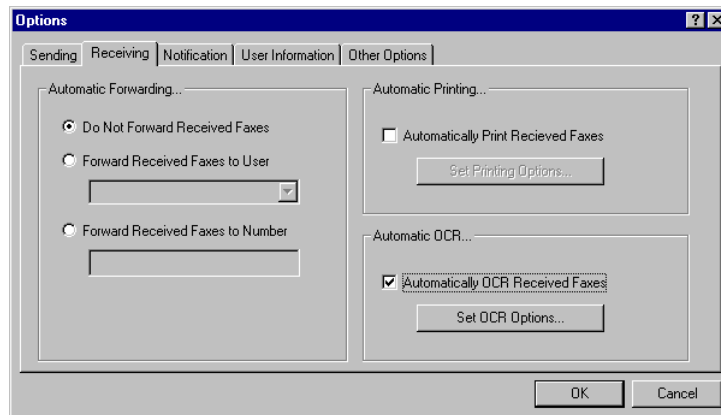
Format. Select the text format used to interpret your fax pages. "ASCII" produces a plain text file. "Smart ASCII" approximates the original format. "RTF" (Rich Text Format) preserves fonts and formatting.

Page Range. Convert the entire file, or specify the specific page range to convert. Specifying a page range is especially useful if you want to convert only a small part of a very large fax.

Select the conversion options you want and click **OK** to convert the fax. The OCR job will be queued on the RightFAX server for conversion. The conversion process time depends on the length of the fax you are converting and the workload on the WorkServer performing the conversion. When conversion is complete, the FaxUtil mailbox will indicate that the converted fax now has a text file associated with it (see *Receiving OCR Text Files*, page 27).

Configuring FaxUtil to Convert All Received Faxes

RightFAX users who have been granted permission to OCR faxes can configure their FaxUtil mailboxes to automatically OCR all received faxes. In FaxUtil, select **Options** from the **Tools** menu, then click the **Receiving** tab:

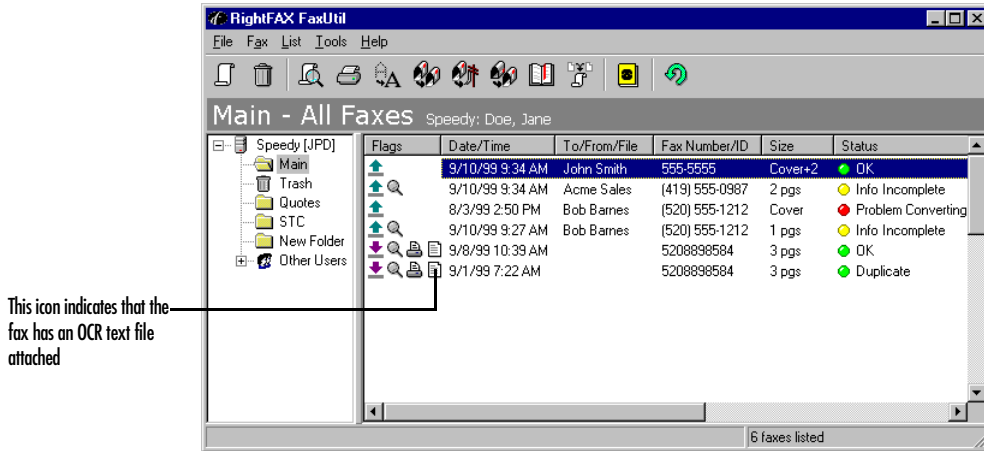


Check the option **Automatically OCR Received Faxes**, then click the **Set OCR Options** button. This opens the **Automatic OCR Options** dialog (see *Converting Individual Faxes in FaxUtil*, page 26).

Receiving OCR Text Files

How you receive OCR-converted faxes depends on which fax client application you use. If you use an e-mail application as your fax client (such as Microsoft® Exchange or Lotus® Notes®), OCR-converted faxes will arrive as file attachments to e-mail messages along with the associated fax image file. These text file attachments can be viewed and edited exactly like any other e-mail attachment.

If you use FaxUtil as your fax client, OCR-converted faxes are stored in the RightFAX database along with their associated fax image files. If a fax has an associated OCR text file, a special OCR icon will appear next to the fax entry:



When you view the fax, a dialog will appear asking whether you want to view the fax image or the OCR text file. If you select the text file, RightFAX will automatically open whatever application is associated with the file's extension and load the file.

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chapter

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Chapter 4: The PDF Module

This software is based in part on the work of the Independent JPEG Group.

The RightFAX PDF module enables conversion of level 1 and level 2 PostScript and PDF (Portable Document Format) documents to TIFF format on the RightFAX server for fax transmission. No configuration on the RightFAX server is necessary because the server automatically determines whether the document to convert is PostScript, PDF, or the standard PCL-5 format. When this module is installed, RightFAX clients can print PostScript and PDF documents directly to the RightFAX print queue and well as send them as file attachments to e-mail messages when using one of RightFAX's E-mail Gateways.

The RightFAX 7.0 PDF conversion engine does not support conversion of PDF files that contain embedded TrueType (CID) fonts that use "Identity-H" encoding.

Installing the PDF Module

The PDF module installs interpretation and conversion files into all \RIGHTFAX\WORKSRV# and \RIGHTFAX\GATEWAY# directories on the RightFAX server and creates an additional \RIGHTFAX\FONTS directory for storing font information.

To install the PDF module:

1. Insert the PDF module CD into the RightFAX server. If Autorun is not enabled on this machine, run the install program by selecting **Run** from the **Start** menu and type:

```
D:\SETUP
```

(Where *D*: is the drive letter of your CD-ROM.)

2. If you have the RightFAX Enterprise Suite CD, you can install the PDF module directly from your CD. Run the Setup program and select "RightFAX Enterprise Suite" from the opening menu. Follow the prompts to the **RightFAX Setup Selection** dialog. Select **Add a New Component** and check the **PDF** option.
3. When prompted to select a PDF WorkServer, specify which WorkServer will execute the PDF conversion processes.

4. Setup will copy the module's files to the RightFAX server. When all necessary files have been copied, click **Finish** to complete the installation and exit the Setup program.

Adding PostScript Fonts

To correctly convert Type 1 PostScript fonts in PostScript and PDF files, the fonts must be copied into the \RIGHTFAX\FONTS directory. When it is installed, the RightFAX PDF module supports 35 basic PostScript fonts including Times, Helvetica, Courier, and Symbol.

To add additional font conversion support, copy the PostScript fonts you want to support into the \RIGHTFAX\FONTS directory on the RightFAX server. Be sure to include both the .PFM and .PFB components of the PostScript fonts.

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