

Scan



November 30, 2011

RCO

2170 Georgina Avenue
Santa Monica, CA 90402

800-972-3027

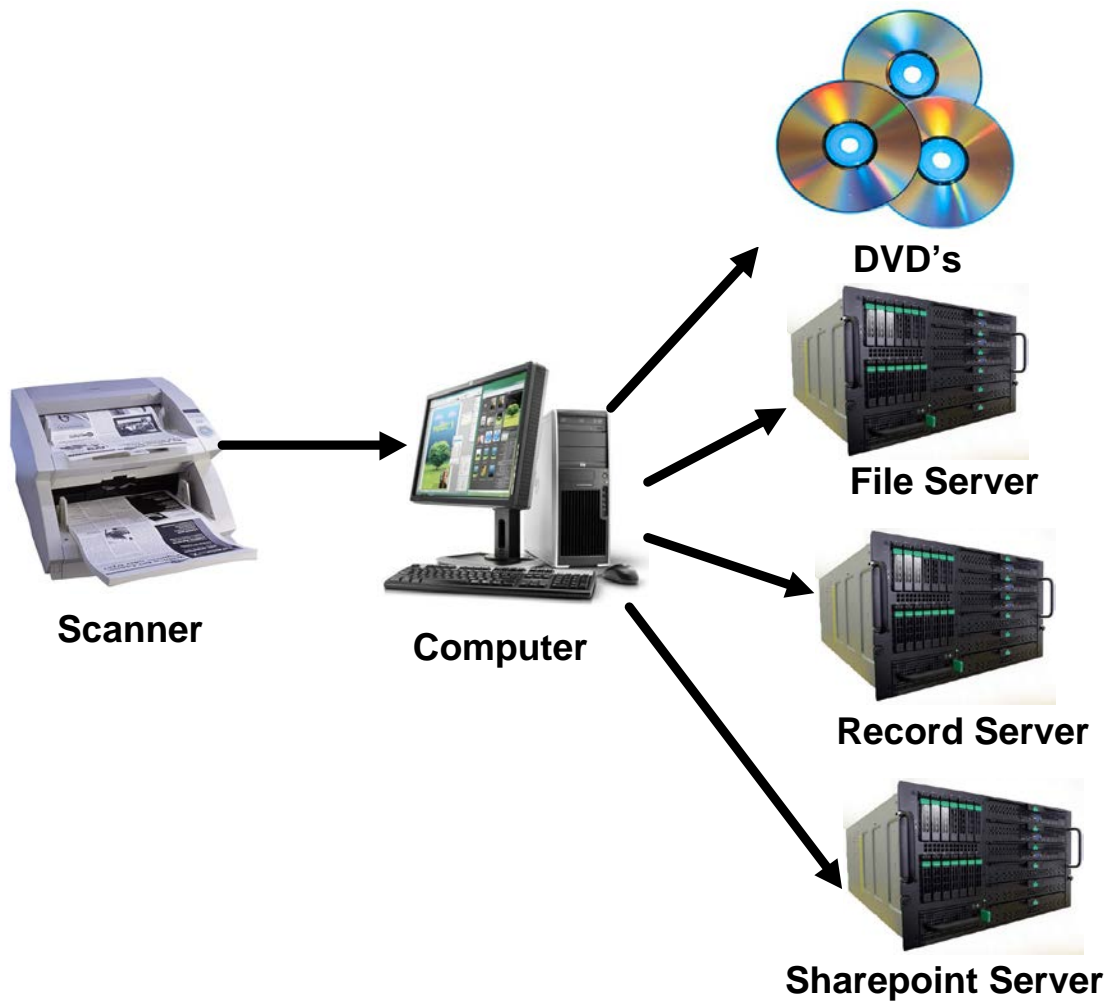
www.rco.com

Table of Contents

1	Introduction.....	1
2	Document History.....	2
3	Install and Uninstall.....	3
4	Understanding the User Interface.....	4
4.1	Thumbnails.....	6
4.1.1	Basic Operations.....	7
4.1.2	Using the Keyboard.....	7
4.2	Status.....	8
4.3	Toolbars.....	8
4.3.1	Scanner Control.....	8
4.3.2	Image Control.....	8
4.3.3	Drawing.....	9
5	Preparing a Document for Scanning.....	10
6	Scan to Local Storage.....	11
7	Scan to RMS Web Server.....	13
8	Scan to Sharepoint.....	16
9	Annotate a Document.....	17
10	Security.....	19
11	Stamp a Document.....	20
12	Special Operations (OCR).....	21
12.1	Working with OCR Zones.....	21
12.2	Creating Zone OCR Templates.....	22
12.3	Coding a Zone OCR Template.....	23
12.4	Working with QuickBooks.....	24
12.5	OCR a TIFF or PDF.....	24
13	Log Files.....	26
14	Summary.....	26

1 Introduction

This document describes the Scan Pro paper scanning software application. Scanning provides a means of converting paper documents into computer files using a hardware scanner and a computer workstation as shown in the following figure. You may only want to store the scanned files on your local computer. If you have a network you will probably store all the scanned files on a network file server so others can access the file. Storing your scanned files to an internet record server allows you to share the files with people who have internet access. You may have a share point server for storing scanned files in an enterprise content management system.



Here are some of the advantages of using a scanning program.

1. Find text in a large amount of documents
2. Prepare documents for court (Bates Stamping)
3. Move physical paper to cheaper storage space or remove entirely
4. Share documents over the internet

5. Protect sensitive documents using encryption to make illegal access difficult

The most important part of converting documents into computer readable files is that you can harness the power of the machine to process and store, find and distribute information better than with the manual process of handling paper documents.

You may wonder how the software works. There are 2 very important functions used to create an electronic file. The first part is taking an image (a picture) of each sheet of paper using the physical hardware (scanner). The software then runs a process called Optical Character Recognition (OCR) that converts the picture to machine readable text. Finally the software assembles the information from each page into a Postscript Description File (PDF). The PDF file is an electronic file that is a universal standard. You or people that share documents with you can get a free Adobe Acrobat PDF viewer (www.adobe.com) to look at the documents you have scanned.

There are related products that work with the Scan Pro product that you may find useful.
Stamp – This product automates the process of stamping the pages of a PDF file
Label – This product is useful for creating cover sheets when you scan to the web

2 Document History

<i>Document</i>	<i>Author</i>	<i>Date</i>	<i>Revision Description</i>
<i>scan</i>	Roy Nabel	1/31/2000	Creation
<i>Scan</i>	Roy Nabel	3/11/2009	Complete rewrite.
<i>Scan</i>	Roy Nabel	9/8/2009	Added zone OCR templates
<i>scan</i>	Roy Nabel	12/7/2009	Major reorganization
<i>scan</i>	Roy Nabel	11/11/2011	Added log files

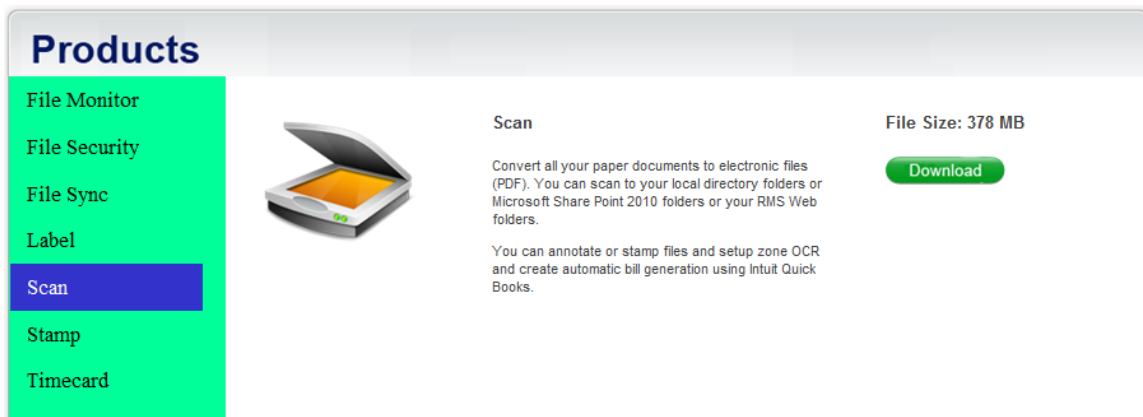
3 Install and Uninstall

To install the program you first download the program from the web. With a browser enter www.rco.com into the URL address edit box near the top of your browser.

Click the Download menu item in the upper left of the page as shown in the following figure.



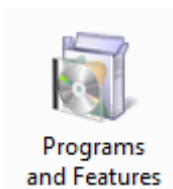
You will see the following screen where you have to click the Scan under the Products section.



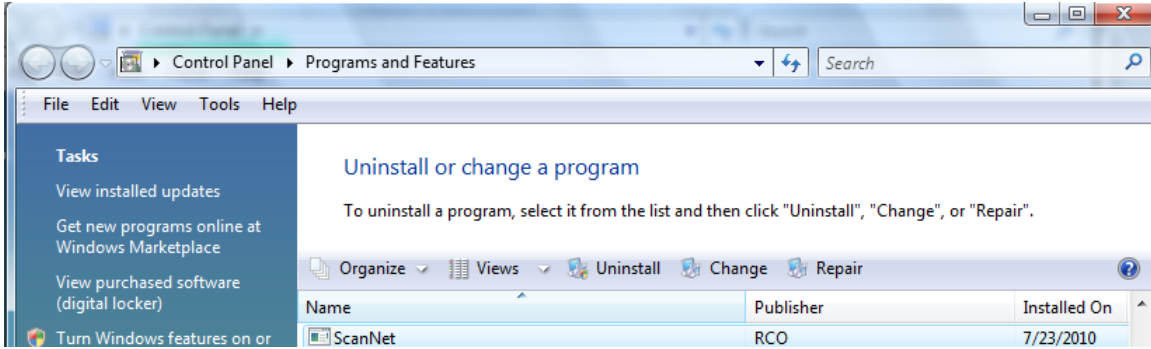
Click the Download button and save the program to a local folder on your computer. You can then click the setup.msi program to install the software. If you have anti-virus software you may have to allow the program.

Once you have installed the software click on the Help menu and click on the Activate menu item.

To uninstall the scan software start the windows control panel and then click on the Program and Features icon.

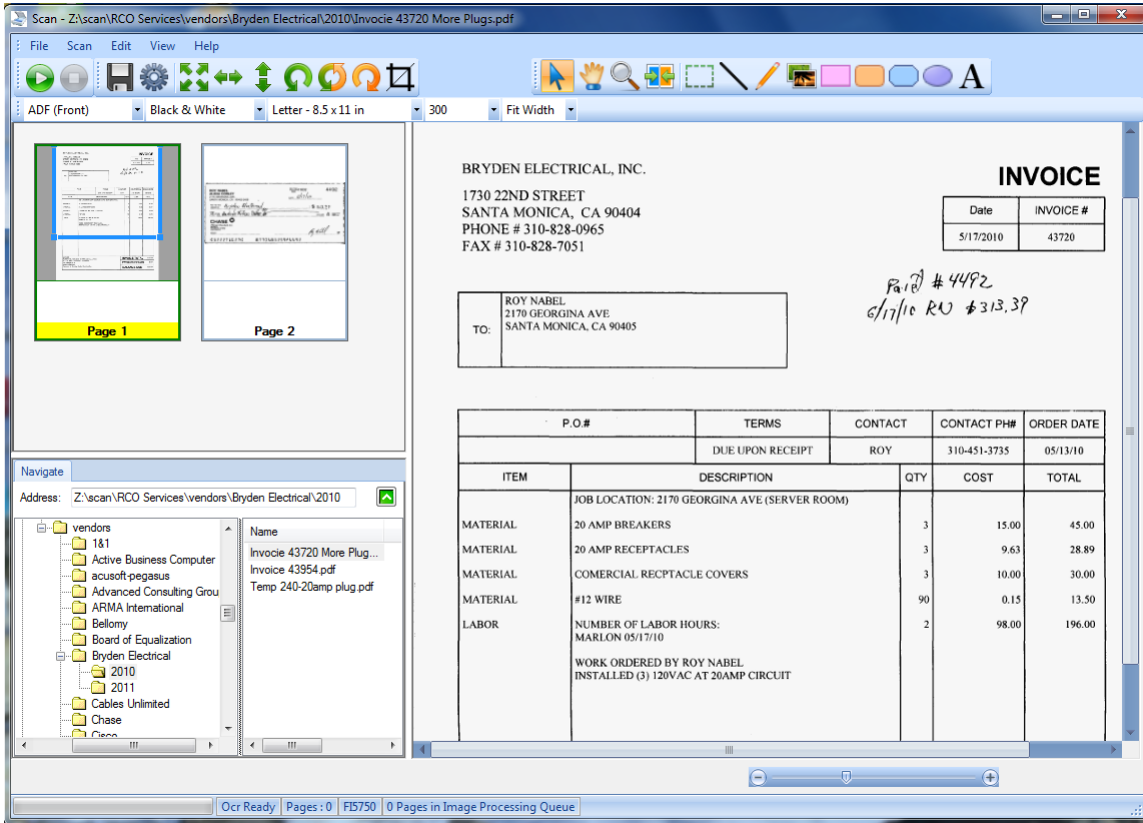


In the Views menu you might want to switch to the Detail view. Scroll down the list until you find the Name equal to ScanNet. Click on this item and then click Uninstall.



4 Understanding the User Interface

In the following figure you will see that there are several areas you need to learn in order to operate the software.



The following table describes each of the areas.

Area	Description
------	-------------

Menu bar	Contains all the scanning commands which you can select with the keyboard or using a mouse.
Combo boxes	These are used to control the scanner settings.
Status	The message/status area shows you the progress of the OCR conversion and also will post various operator messages.
Thumbnail	After a page is scanned the program will create a small thumbnail image and add that image to the thumbnail area located vertically along the left side. You can resize the thumbnail area using your mouse.
Image	After a page is scan the program put a large image in the image area. If you are scanning many pages you might want to set the Image area magnification to Fit Height.

Below the menu bar you will see several combo box menus that control the current setup. The most used combo box is the tray where you will select Front for scanning just the front side of the page or duplex for scanning both sides of the page.

Control	Description
tray	You can select the scan source of either the tray or the ADF
All	This controls how many pages to scan.
B&W	You can scan the page in black & white, gray scale or color
Both	This controls what page sides to capture (front, back or both)
8x11 std	This defines the paper size
300dpi	This defines the scanning resolution
Fit Height	Image area magnification

If you right click the thumbnail the system will show a menu that allows you to perform common quality control (Q/C) operations such as rescan page, delete page and print a page.

4.1 Thumbnails

Why do you have the thumbnail window?

The thumbnail window gives you an overview of the scanning work you have accomplished up to the current time.

Here are some important things you can do with the thumbnail window.

You can get see how many pages you have scanned.

You can move pages around in case you want to correct the order.

You can delete one or more pages in case you want to rescan them or perhaps you don't want to include those pages.

You can pan and zoom around the currently selected image

Key Concepts

To understand the thumbnail window you will want to understand a few items. First imagine that you have scanned 50 pages. For each page you scanned there is a corresponding thumbnail image ordered just like you scanned starting from page 1 to page 50. The thumbnail window can be resized. At a given moment depending on the size of the window you will have a certain number of thumbnail images. The vertical scroll bar located to the right of the thumbnail window (is visible if the number of images is greater than what can fit into the window). At any given time there is ALWAYS the active thumbnail. This is the large scanned image to the right of the thumbnail window. Note that this image may not be visible in the thumbnail window if you have just used the vertical scroll bar. There is also an active cursor location that is always visible.

The following are helpful indicators.

Symbol	Indicator	Description
Active Thumbnail	Green Border	There is only one active thumbnail displayed and this is the image displayed in the main window located to the right of the thumbnail window.
Selected Thumbnail(s)	Red Border	After you select one or more thumbnails and then select the Edit-Cut operation the system will highlight the selected images in red
Drop Zone	Blue Vertical	Used to indicate the drop position when you drag selected thumbnails. This is always a vertical blue bar in front of or after a thumbnail image. There is ALWAYS only one drop zone.
Active Cursor Position	Yellow Page Number Background	Shows the current cursor position. The page numbers are in black and the background is yellow. There is ALWAYS only one active cursor position. The active cursor is always visible.

4.1.1 Basic Operations

The process of selecting thumbnails for an operation like Edit-Delete or Edit-Cut is shown in the following table. Here we show making the selections using a mouse but you can also use the keyboard to perform the same operations.

Action	Description
Click	Selects one thumbnail
Shift Click	Selects all thumbnails from current selection to the current thumbnail being clicked
Ctrl Click	Allows you to select multiple thumbnails not always in a contiguous order

Table XXX Selecting Thumbnail using a mouse

Once you have selected thumbnail images you will want to do one of the following editing operations.

Action	Description
Cut	Copy all marked thumbnails to the clipboard
Paste	Paste the images stored on the clipboard after the current selection point
Delete	When you press the delete key on the keyboard all thumbnails and their associated images are removed

4.1.2 Using the Keyboard

Key	Description
Home	Move to the first image in the current thumbnail window
End	Move to the last image in the current thumbnail window
Ctrl + Home	Move to the first thumbnail of all thumbnails
Ctrl + End	Move to the last thumbnail of all thumbnails
↑	Move up one row and one column
↓	Move down one row and one column
→	Move right one column with wrapping
←	Move left one column

Delete	Delete the currently selected image. Ask for confirmation
Page Up	Shows the previous set of thumbnail. For example suppose you have 50 thumbnails total and can see 10 thumbnails in the thumbnail window and the top thumbnail is 30. After you press the Page Up key the top thumbnail will be 20.
Page Down	Shows the next set of thumbnail. For example suppose you have 50 thumbnails total and can see 10 thumbnails in the thumbnail window and the top thumbnail is 30. After you press the Page Up key the top thumbnail will be 40.
ESC	Pressing the Escape key will un-select all selected images that were going to get cut.
Ctrl+a	Select all the thumbnails
Ctrl+x	Cut the selected thumbnails
Ctrl+v	Paste the selected thumbnails
Ctrl+spacebar	Selects the current cursor thumbnail
Shift+↓	Selects all thumbnails from current cursor down one row to same column and updates the cursor position
Shift+→	Selects the next thumbnail

4.2 Status



The status bar located in the lower right corner shows a gas gauge that indicates the progress of the optical character recognition process. To the right of the gas gauge you may see messages from the program after an event. For example “file uploaded to rms”.

4.3 Toolbars

There are several toolbar buttons that can be turned on or off using the View – Toolbars menu

4.3.1 Scanner Control









The following table shows the buttons that control the scanner operation.

Icon	Name	Description
	Start	Start scanning pages Please make center green
	Stop	Stop scanning pages Please make center red

4.3.2 Image Control














The following table shows the buttons that control the image view, image processing the current image or merging the vector drawings with the scanned image.

Icon	Name	Description
------	------	-------------

	Settings	This activates the image processing side panel settings
	Save	Merge vector drawing with scanned image
	Fit page	Fit the scanned image into the current viewing area
	Fit width	Fit the width of the scanned image into the current viewing area
	Fit height	Fit the height of the scanned image into the current viewing area
	Rotate -90	Rotate the document -90 degrees (counter clockwise)
	Rotate 180	Rotate the document -180 degrees. Document was scanned upside down.
	Rotate +90	Rotate the document 90 degrees (clockwise)

4.3.3 Drawing

The drawing tools allow you to add vector drawings to the current scanned image. Note that some of the buttons are settings (e.g. line thickness)

Icon	Name	Description
	Object Select	This allows you to select one drawing object by clicking on some part of the object
	Pan	This allows you to move the whole scanned image by dragging the hand.
	Zoom	You can drag the magnifying glass on an area you want to enlarge.
	Area Selection	Drag this rectangle over an area to select the drawing objects that are contained within the border of the area selection rectangle.
	Text	Place text on the scanned image
	Line	Draw straight lines. Note you can set the line thickness, line color and end arrows with the line property buttons.
	Pencil	This allows you to draw free form lines. The color and line thickness are set with the line color and line thickness button.
	Picture	You can add a bitmap picture file from any computer folder you can access on the current scanned image.
	Rectangle	This draws a rectangle with a solid color.
	Font Property	This button sets all the text font properties (font, size, color, italics and bold).
	Fill Color	This button sets the fill color.
	Line Color	This button sets the line color.
	Line Thickness	This button sets the line thickness.



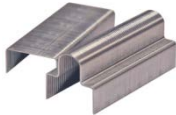



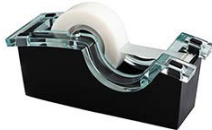



Line Arrows

This button sets the line arrow heads at start and end of the line.

5 Preparing a Document for Scanning

Before you start any scanning you have to prepare documents for the scanner. This will save you so much time in the long run that is well worth the effort.

First go through the document and remove the following items shown in the next table. You want to remove anything that might jam in the scanner.

			
NO STAPLES	NO CLIPS	NO CLIPS	NO POST ITS
			
NO TAPE	NO BIG STAINS	NO FOOD	NO ENVELOPES

Make sure that the pages are not bent or too wrinkled. This may take some rolling or you might have to flatten the document by placing a large weight on top for a couple of hours.

You want to go through the document and make sure that each page is separate and is not stuck to another page. A common technique is to fan the pages. You grab one side of the document and then on the other slide your thumb trying to separate the pages.

Unfold any pages like maps, diagrams or large spread sheets.

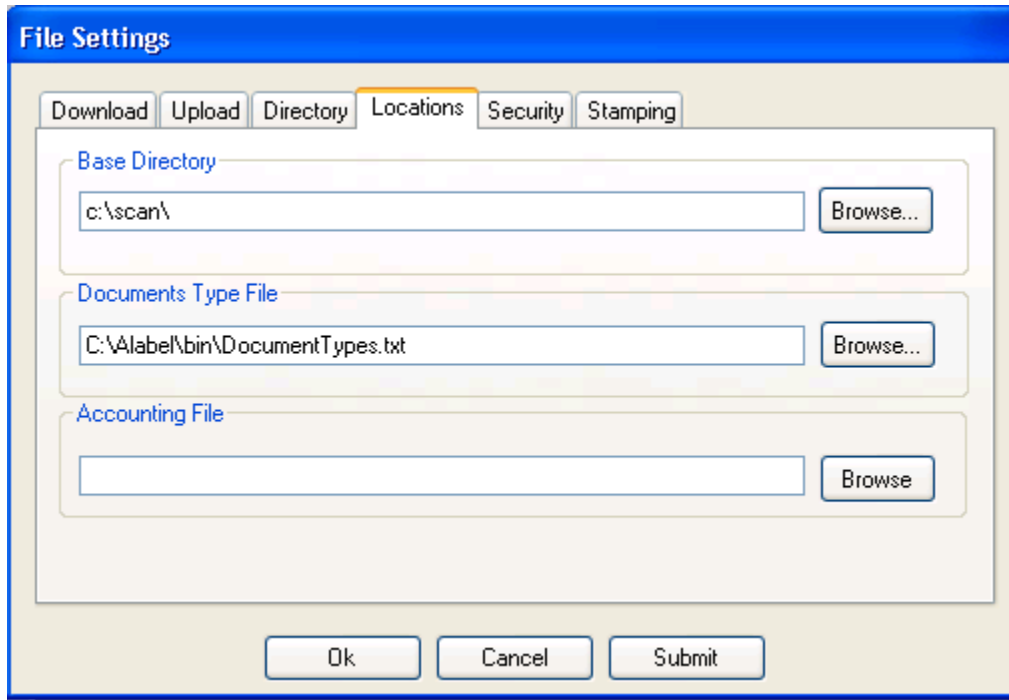
Look for very thin paper if you are scanning old documents. These should be done on a flat bed scanner and manually inserted.


If you do have to tape objects like small receipts or checks to a page make sure you only tape on one side of the paper and the object is centered on the page. Make sure the tape is firmly pressed down and you should have at least one piece of tape on the top side.

6 Scan to Local Storage

When you scan a document that you want to save on your local hard drive you first prepare the document for scanning and feed the document into your scanner.

Under the Scan Tab choose File Settings and then click the location tab. You want to make sure the Base Directory is set to where you want your documents to go.



Then click the green triangle button  located at the bottom left of your display screen. The scanner will start scanning and create thumbnails. You may see the following dialog box if you have any barcodes on the page. Just click the Submit button.

Cover Dialog

Detection Data

Record Type:

RMS Document Number:

Directory Storage Location:

Record Series:

Document Date:

Link Field Barcode:

Please select one of the following actions

- This is not a cover sheet keep scanning
- All detection data is good keep scanning
- Make changes and keep scanning
- Stop scanning

When all the sheets in the document have been scanned you want to make sure that the “Done scanning – Save File” radio button is selected.

ContinueScan

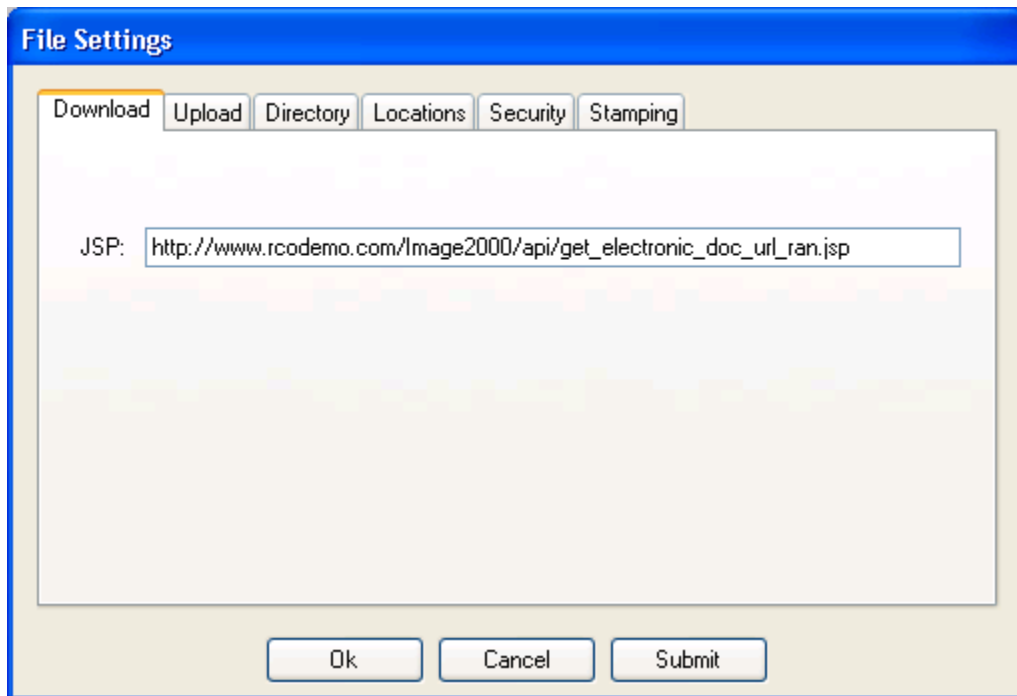
- Operator will add paper for current document
- Operator will add paper - Start new document
- Done scanning for now
- Done scanning - Process and upload
- Done scanning - Save File

Click the Submit button and the system will prompt you for a directory location.

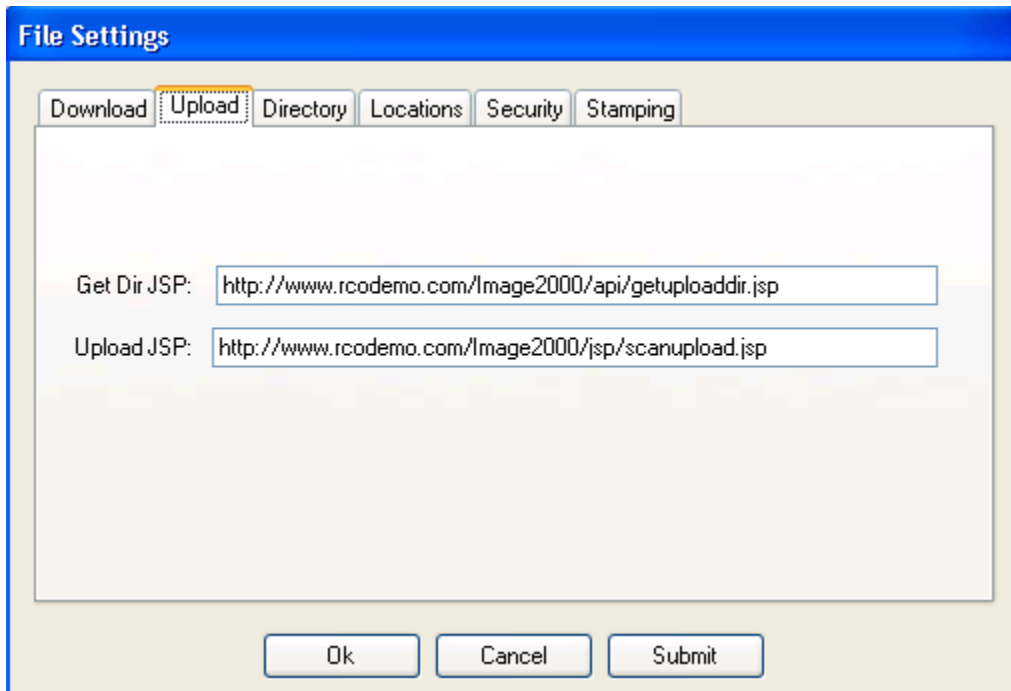
7 Scan to RMS Web Server

Before you can scan a document to the web you have to create a cover sheet which is described in the Label program documentation. You also need to have the file settings correct. This is in the Scan Menu File settings. Please contact RCO when you do the web setup and they will provide you with the strings needed in you Upload and Download tabs. This information will allow you to save documents to the web and also read and edit documents already on the web.

You need to set the Download tab.

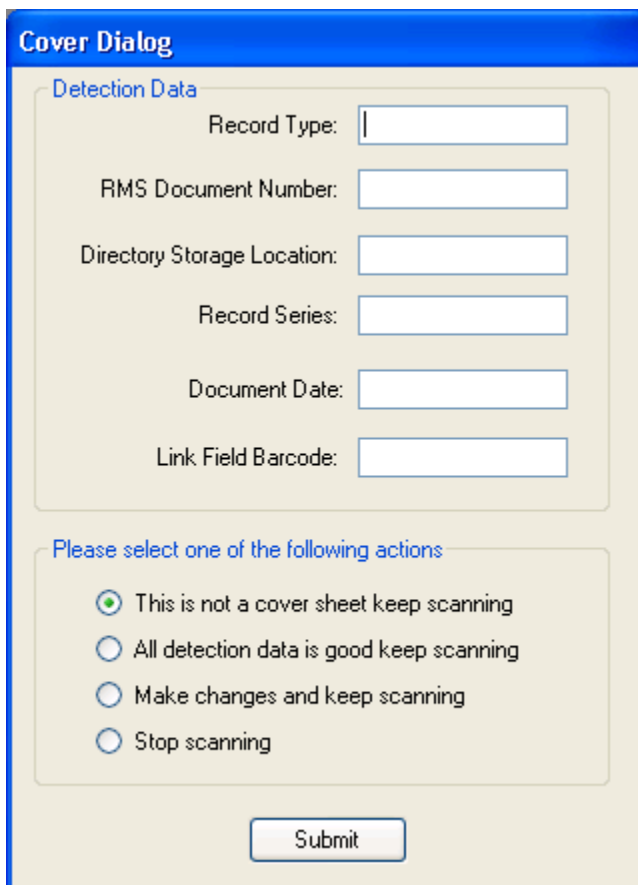


You also have to set the upload tab.



The 'File Settings' dialog box features a blue title bar and a tabbed interface. The 'Upload' tab is selected, showing two text input fields. The first field, labeled 'Get Dir JSP:', contains the URL 'http://www.rcodemo.com/Image2000/api/getuploadaddr.jsp'. The second field, labeled 'Upload JSP:', contains the URL 'http://www.rcodemo.com/Image2000/jsp/scanupload.jsp'. At the bottom, there are three buttons: 'Ok', 'Cancel', and 'Submit'.

Once you have the tabs setup then you add a cover sheet to your document. You will see a cover dialog appear after the cover sheet is scanned.

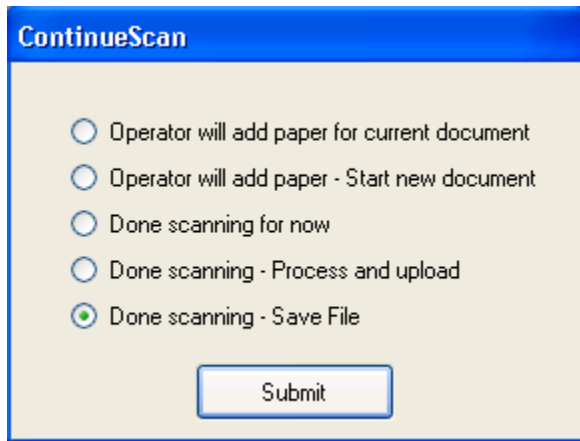


The 'Cover Dialog' box has a blue title bar and contains two main sections. The first section, 'Detection Data', includes six text input fields: 'Record Type:', 'RMS Document Number:', 'Directory Storage Location:', 'Record Series:', 'Document Date:', and 'Link Field Barcode:'. The second section, 'Please select one of the following actions', contains four radio button options: 'This is not a cover sheet keep scanning' (which is selected), 'All detection data is good keep scanning', 'Make changes and keep scanning', and 'Stop scanning'. A 'Submit' button is located at the bottom center.

If you need to make changes then click the Make changes and keep scanning radio button and then click the submit button.

If everything is good (all the information in the edit boxes match the cover sheet) then check the All detection data is good and keep scanning radio button and then click the submit button.

When you get to the end of the document the system will display the end dialog

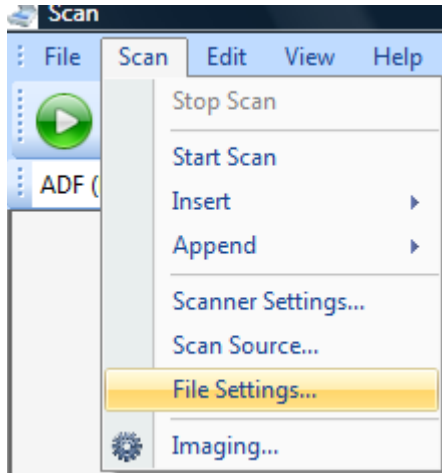


You should click the Done scanning – Process and upload. At this point the system will assemble the PDF and upload the document to the correct web address. Depending on the speed of your connection and the size of the document this can take time.

8 Scan to Sharepoint

Sharepoint is a Microsoft electronic content management software package. You can scan PDF documents to any Sharepoint site and add coding (columns) for each document.

To setup scanning to sharepoint you want to start the scan program and select the scan menu command as shown in the following figure.



You want to click on the File Settings... menu selection and you will see the following figure which you need to fill out the settings. On the Sharepoint server you have to give the user permissions to add documents to the selected site.

The domain is the used to identify your company's central resources that you have access to just like when you log on to your machine or network.

DOMAIN\UserId
Password

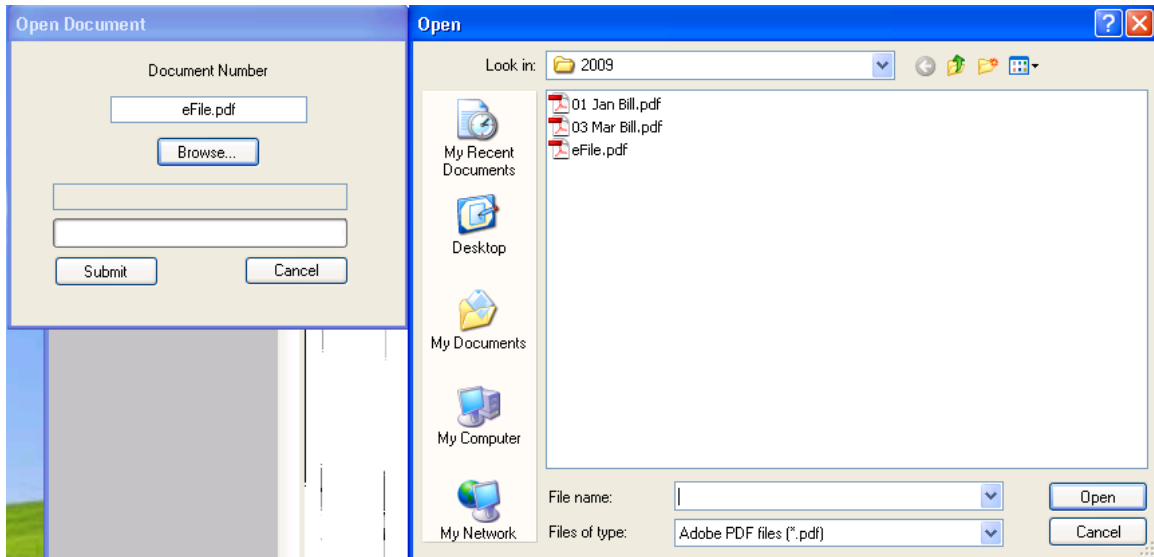
You need to choose the Site where you want your documents stored. Click on the Browse button to see the sites.

There is a Test Connection button that helps to verify that you have entered information correctly into all the edit boxes.

The image shows a 'File Settings' dialog box with several tabs: Download, Upload, Locations, Security, Stamping, QuickBooks, and User Pref. The 'Locations' tab is active. It contains two sections: 'Sharepoint' and 'RMS'.
In the 'Sharepoint' section, there are four input fields: 'SharePoint Server' (http://www.rcodemo.com/SitePages), 'Domain' (rco), 'User Name' (steven), and 'Password' (Steven101). A 'Test Connection' button is located to the right of the 'Domain' field.
In the 'RMS' section, there are three input fields: 'RMS Server' (http://www.rco.com/Image2000/services), 'User Name' (admin), and 'Password' (admin).
At the bottom of the dialog box are three buttons: 'Ok', 'Cancel', and 'Submit'.

9 Annotate a Document

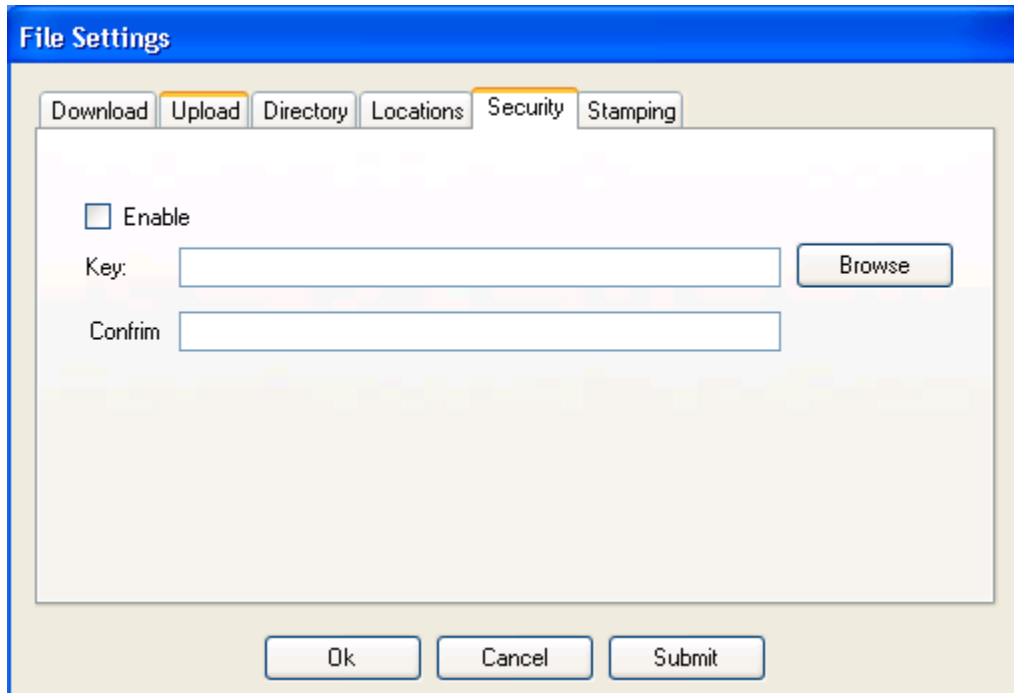
Sometimes you have scanned a document but then you need to add or remove a few pages. Under the File menu choose the Open local document and you will see the Open Document dialog (left side). Click the Browse button and you will see the Open dialog on the right. Pick your file and click the Open Button. Then click the Submit button and the program will read your file.



You can then click on a thumbnail where you want to add pages and then choose Scan Insert and Append commands. You can also use the Edit menu to pick various commands to delete pages or cut and paste them to different locations within the document.

10 Security

You can use encryption to protect a document. Under the Scan Menu select the File setting and then click the Security tab from the following dialog.



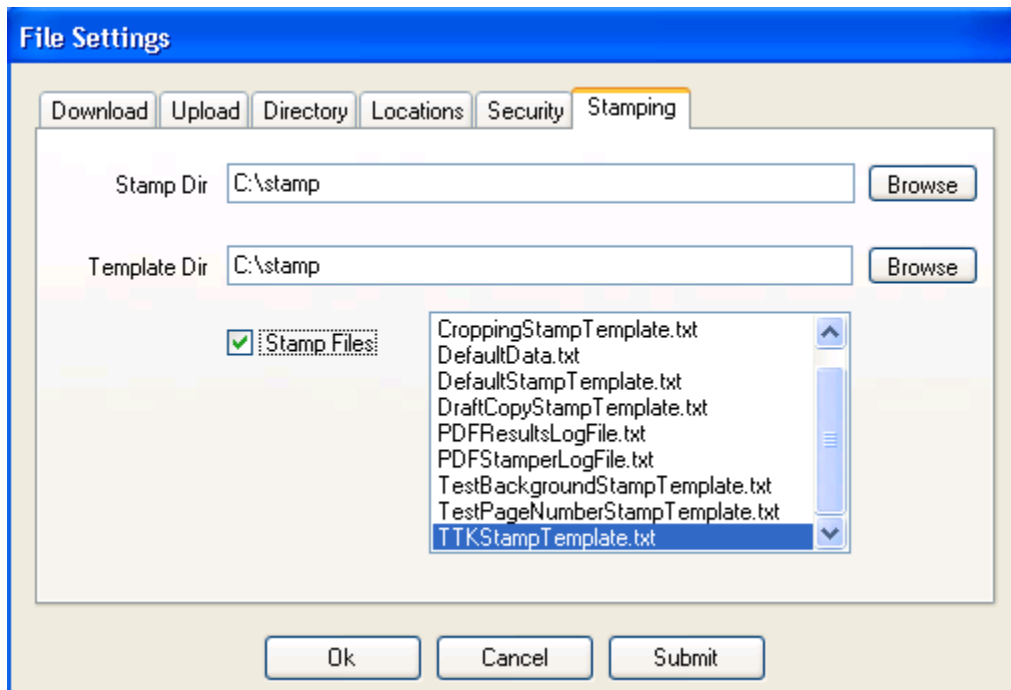
The image shows a 'File Settings' dialog box with a blue title bar. It has several tabs: 'Download', 'Upload', 'Directory', 'Locations', 'Security', and 'Stamping'. The 'Security' tab is selected. Inside the dialog, there is a checkbox labeled 'Enable'. Below it are two text input fields: 'Key:' and 'Confirm'. To the right of the 'Key:' field is a 'Browse' button. At the bottom of the dialog are three buttons: 'Ok', 'Cancel', and 'Submit'.

You have to check the Enable box and add the SAME password in both the Key and Confirm boxes. Note you have to use the same case since the password is case sensitive. You must remember the key!

11 Stamp a Document

If you only have one document to stamp first use the Stamp application to design a stamp template. Under the scan menu File menu choose the File settings command and then click the stamp tab. You will see the following dialog.

*** Note that if you have many documents to stamp especially Bates Stamp then we suggest that you do the following. First do your normal scanning. Then organize all your documents that you want to stamp in a production folder. You can have sub folders. Then use the stamp program to stamp all the documents at once.



12 Special Operations (OCR)

Optical Character Recognition known as OCR for short provides several advantages. Some copy machines produce PDF files but they are only images and you can do a full text search to find words. Scan Pro takes these PDF files and makes them searchable. If you have every done data entry for quick books you may have wondered if there was a faster way to enter invoices that have line items. Scan Pro simplifies the data entry process.










While you may have to design ocr zone templates for your various bills and invoices the effort is worth the reward in less typing and more accurate data entry. In the following sections you will learn how to create templates, checking data entry coding, upload to QuickBooks and also how to convert copy machine PDF files to searchable PDF files.

12.1 Working with OCR Zones





The primary purpose of the zone ocr system is to enable you to convert paper bills and get them entered into your Quick Book accounting system. In order to use the zone ocr process you have to do a few steps.

1. Create zone ocr templates names for each type of bill you receive.
2. Draw all the zones for a given template and give each zone a name (e.g. Amount)
3. Do the Zone OCR operation and make corrections if needed.
4. Upload the information to Quick Books

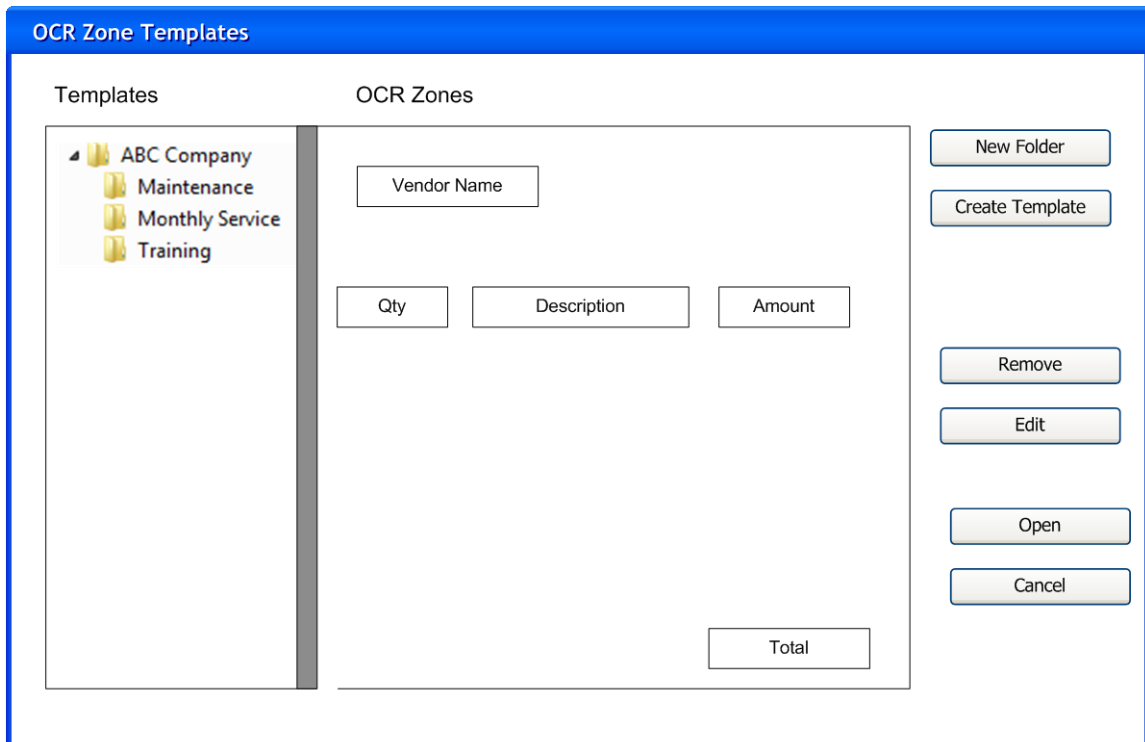
Once you get the template structure and the zones created from then on you will just open the template you want, check the OCR process and upload the information. There is a zone ocr toolbar that has buttons that will do you most common functions.

Icon	Name	Description
	Design Mode	When design mode is selected each rectangular zone drawn will be names with text box control
	New Folder	Create a new folder in the templates directory window
	New Template	Create a new zone ocr template
	Find Template	Find an item in the templates directory
	Delete item	Delete item selected in templates directory window
	Quickbooks Upload	Upload the coding information to quickbooks and create invoices
	Templates Directory	Show / Hide the templates directory window
	Coding Window	Show / Hide the coding window
	Process Zones	Ocr each zone on the current image and add to the coding page

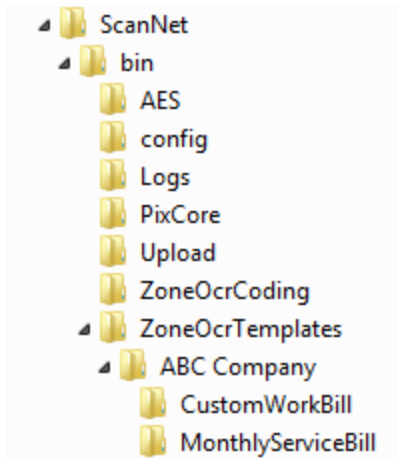
12.2 Creating Zone OCR Templates

To create a zone ocr template click the design mode button in the toolbar . This will open the template directory window. You have to create at least one folder to hold your templates by clicking the new folder button in the toolbar . You create a zone ocr template by clicking the new template button in the toolbar . A template must be created in a folder. You can delete anything in the template directory by clicking the delete icon in the toolbar . ***Note be careful if you delete a folder with many templates as these will also be delete all the items contained in the folder. The system will prompt you with a dialog asking if you are sure.

To create a zone template you will use the following dialog which is activated from the File Menu / OCR Templates.



All OCR templates are stored in sub folders under the folder ZoneOcrTemplates.



Once you have created the folder structure for your templates you can select a particular folder and then click the create template button.

When you click the create template button the mode combo box located in the toolbar will change to design. This indicates that the objects you draw will be names and associated with the currently selected template. You can name the zones and then click the save template button on the toolbar when you are finished.

12.3 Coding a Zone OCR Template

When you have a zone ocr template selected and the coding window enabled you will see the following figure. The system will start processing the zones and fill in the edit boxes. You can manually make changes to the edit boxes and then click save to store the coding information in the folder called *ZoneOcrCoding*.

The screenshot shows a software interface for 'OCR Zones (ABC Company – Maintenance)'. It is divided into two panes by a vertical splitter. The left pane contains a vertical stack of input fields: 'Vendor Name', 'Qty', 'Description', 'Amount', and 'Total', followed by a 'Save' button. The right pane contains a 'Vendor Name' field at the top, followed by a table with three columns: 'Qty', 'Description', and 'Amount'. At the bottom of the right pane is a 'Total' field. A vertical scrollbar is visible on the left side of the right pane.

Zone Name uses shortened path if too long.

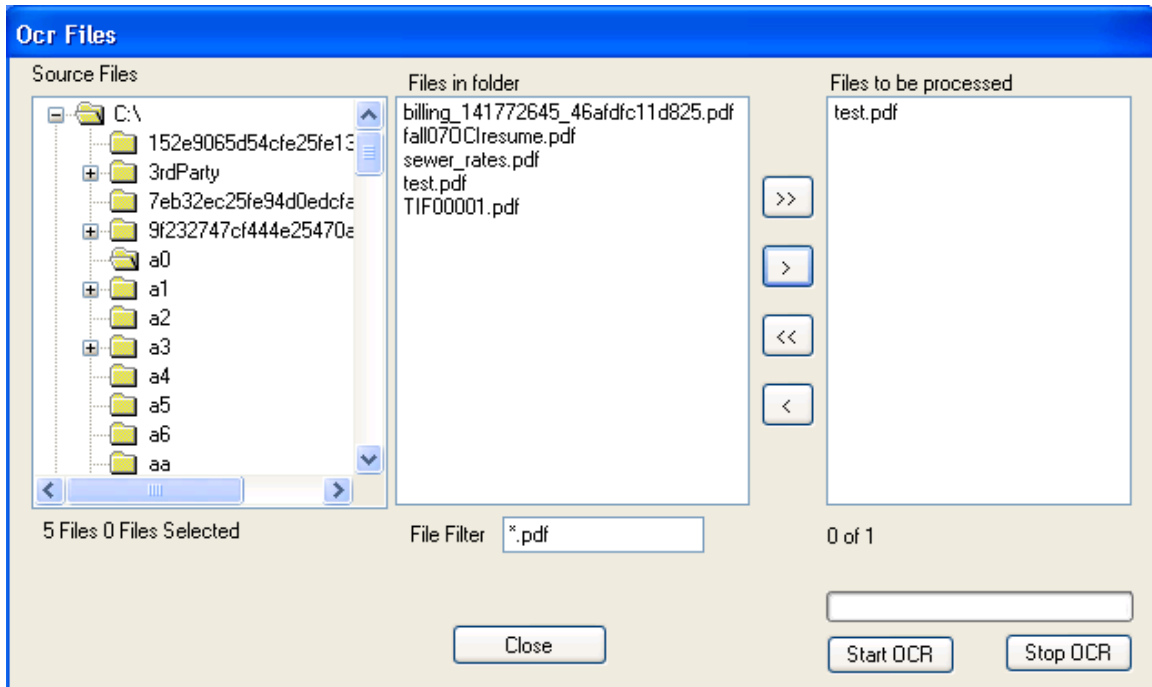
The vertical splitter can be dragged horizontally

12.4 Working with QuickBooks

When you click the quickbooks button in the toolbar the system will upload all the coding information and create invoices.

12.5 OCR a TIFF or PDF

Sometimes you might want to OCR a TIFF or PDF file that has been produced by a copy machine or an application that does not have OCR capabilities. For TIFF files you select an item called OCR files in the File menu. If you select this command then you will see the following dialog. To OCR a PDF file first use the open local and save local commands in the File menu.



First you select the folder you want to process and then add the files in the File in Folder list to the Files to be processed list. The > adds one file at a time or you can use the >> to add all the files. Click the Start OCR button to start the conversion process.

The following table shows the meaning of all the buttons.

There are several buttons in between the two lists which allow you to add or remove files to OCR. The following table shows you the meaning of each button.

Button	Name	Description
>>	Add All	Add all files in the Files in folder list to File to be processed list
>	Add One	Add one files in the Files in folder list to File to be processed list
<<	Remove All	Remove all files in the Files to be processed list
<	Remove One	Remove one files in the Files to be processed list
Close	Close	Removes the dialog from the display screen
Start OCR	Start OCR	Start the OCR Conversion process
Stop OCR	Stop OCR	Stops the OCR Conversion process

13 Log Files

The log files help the RCO support staff troubleshoot problems when things go wrong. The following table shows the folder location of the log file depending on what windows operating system you have.

Operating System	Folder Locations
XP	C:\Documents and Settings\All Users\ScanNet\Debug\ ScanNet.log
Vista	C:\Users\Public\ScanNet\Logs\ Debug\ScanNet.log
Windows7	C:\Users\Public\ScanNet\Logs\Debug\ScanNet.log

14 Summary

Please contact us at any time if you have problems or suggestions. Most of the product improvements come from customer suggestions.

In United States: 800-972-3027

Outside United States: 310-451-3735

Email: royn@rco.com

We hope you enjoy the product!