AutoDocSearch

GETTING STARTED GUIDE

SOFTWARE FOR SEARCHING AND RULE-BASED PROCESSING OF PDF DOCUMENTS

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INTRODUCTION

WHAT IS IT?

The AutoDocSearch is a plug-in for Adobe Acrobat software for searching, reporting and performing content-depended processing and organizing of PDF documents.

FUNCTIONALITY OVERVIEW

Use this software for:

- 1. Searching multiple PDF documents for occurrence of one or more search terms or text patterns.
- 2. Create hyperlinked search reports in HTML and spreadsheet-ready formats.
- 3. Copy PDF files into specific folders based on occurrences of specific search terms or text patterns.
- 4. Perform custom document processing using Acrobat JavaScript based on search results.
- 5. Review search results using interactive interface.
- 6. Bookmark and/or highlight matching text in PDF documents.
- 7. Use "Search and Copy" command in Action Wizard workflows for batch processing of PDF documents without user interaction.

Example 1: The software can take multiple PDF files and search them for occurrences of last names from the specified search list and produce a hyperlinked HTML report listing all matching document locations. Search results can be easily viewed in the browser and navigated by clicking on report entries.

Example 2: The software can take multiple PDF files that represent invoices and organize them into different folders based on company names or invoice numbers.

SYSTEM REQUIREMENTS

The AutoDocSearch is a plug-in for Adobe Acrobat (version 6.0 and up). It requires Windows OS version 7, 8, or 10.

Important: this product does not work with free Acrobat Reader, it requires full version of Adobe Acrobat.

The product information page is located at: http://www.evermap.com/autodocsearch.asp.

SEARCHING PDF DOCUMENTS – SIMPLE SEARCH EXAMPLE

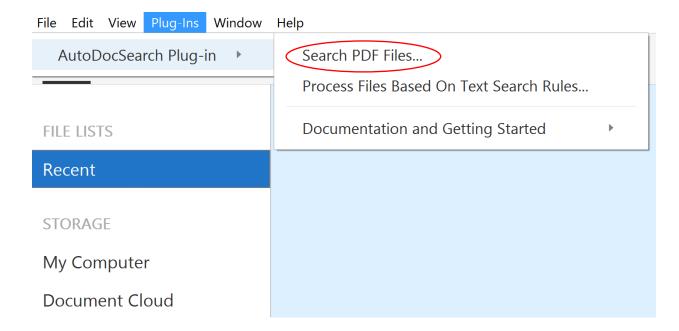
SEARCHING FOR A LIST OF COMPANY NAMES

In this section we will demonstrate how to use AutoDocSearch to search PDF documents for a list of company names and create a hyperlinked report listing all found document locations.

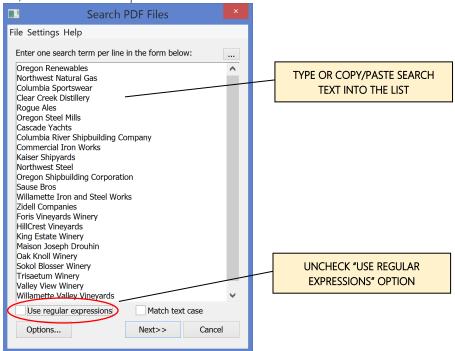
Here is a sample page from one of the documents we are going to search:



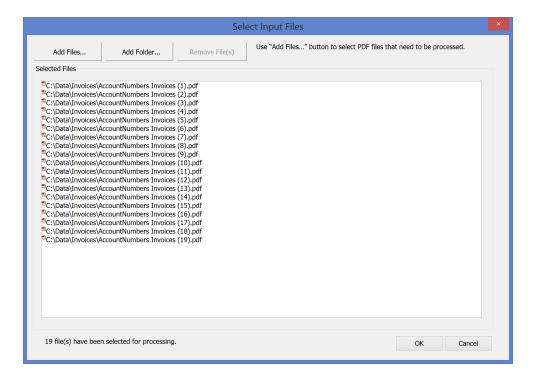
1. To begin, open Adobe Acrobat and select "Plug-ins > AutoDocSearch Plug-in > Search PDF Files..." from the main menu of Adobe Acrobat:



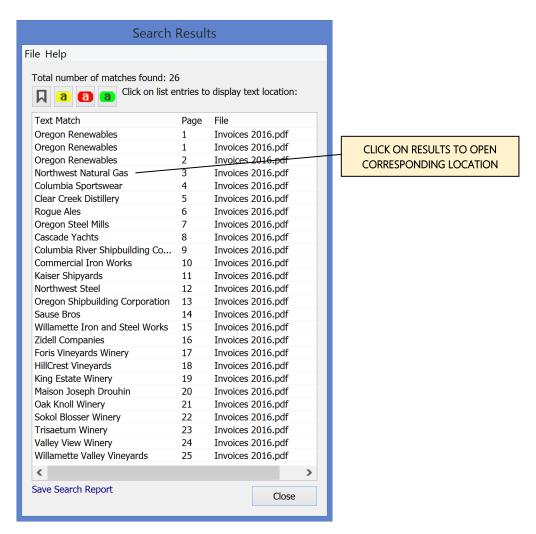
2. The "Search PDF File" dialog appears on the screen. Type (or copy/paste) all search text into the list, one search term per line:



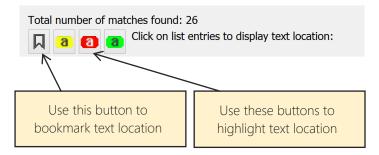
- 3. Uncheck "Use regular expressions" option to use a plain text search.
- 4. Use "File > Save Search List" menu to save search list for future re-use. It can be loaded back later by using "File > Load Search List" menu.
- 5. Press "Next>>" button to advance to input file/folder selection step. Use "Add Files..." and "Add Folder..." buttons to select input PDF files:



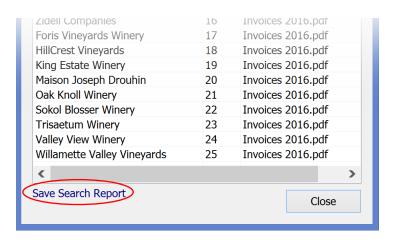
6. Press "OK" button to start searching. Once the search is completed, the "Search Results" dialog is shown. The dialog is resizable. Change its size and position to simply viewing:



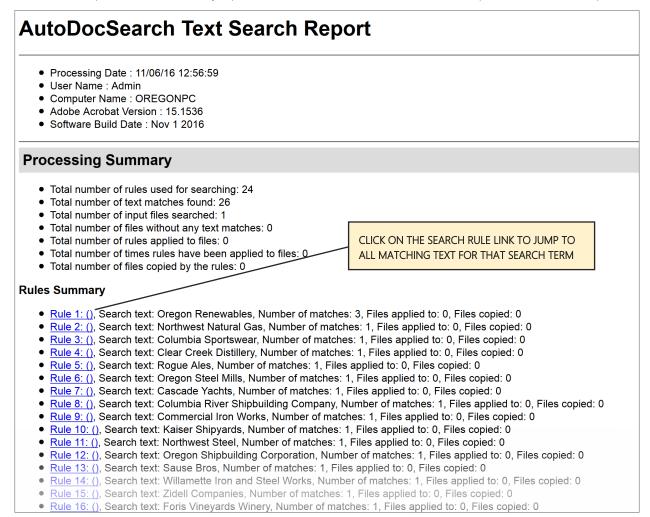
- 7. Click on any search result in the list to open a corresponding PDF document and display the text location. The matching text is going to be selected on the page.
- 8. Use toolbar button to bookmark or highlight matching text in the documents:



Click "Save Search Report" link or use "File > Save Search Report" menu to save current search results as HTML report file:



The search report is automatically open in the web browser. Here is an example of the search report:



The search report is organized into number of sections:

Processing Summary – this section list overall statistics such as number of input files and matches found.

Rules Summary – this section lists all search terms used and number of matches found for each search "rule"

Processing Details – this section lists all matching text references organized by search "rule":

Processing Details

Rule 1 (), Search text: Oregon Renewables, Number of matches: 3

Text matches

- 1. File: C:\EverMap PDF\Test Documents\AutoDocSearch\Invoices 2016.pdf, Page: 1, Text found: Oregon Renewables
- 2. File: C:\EverMap PDF\Test Documents\AutoDocSearch\Invoices 2016.pdf, Page: 1, Text found: Oregon Renewables
- 3. File: C:\EverMap PDF\Test Documents\AutoDocSearch\Invoices 2016.pdf, Page: 2, Text found: Oregon Renewables

No files have been copied by this rule.

Rule 2 (), Search text: Northwest Natural Gas, Number of matches: 1

Text matches:

1. File: C:\EverMap PDF\Test Documents\AutoDocSearch\Invoices 2016.pdf, Page: 3, Text found: Northwest Natural Gas

No files have been copied by this rule.

Rule 3 (), Search text: Columbia Sportswear, Number of matches: 1

Text matches:

1. File: C:\(\text{EverMap PDF\Test Documents\AutoDocSearch\Invoices 2016.pdf}\), Page: 4, Text found: Columbia Sportswear

No files have been copied by this rule.

Rule 4 (), Search text: Clear Creek Distillery, Number of matches: 1

Text matches:

1. File: C:\EverMap PDF\Test Documents\AutoDocSearch\Invoices 2016.pdf, Page: 5, Text found: Clear Creek Distillery

No files have been copied by this rule.

Rule 5 (), Search text: Rogue Ales, Number of matches: 1

Text matches

Optionally, search results are automatically saved as spreadsheet-ready plain text CSV file. It can be opened by Excel or any other spreadsheet editor as well as in any text editor. The spreadsheet lists all details for every matching text location:

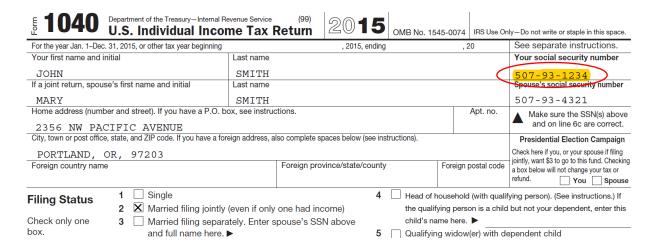
| | Α | В | С | D | E | F | G | Н |
|---|-----------|------|------------------------|-------|-------|-------|--------|-------------|
| 1 | File | Page | Text | Left | Right | Тор | Bottom | Rule Number |
| 2 | C:\EverMa | 1 | Oregon Renewables | 41.4 | 119.4 | 643.6 | 631.2 | 1 |
| 3 | C:\EverMa | 1 | Oregon Renewables | 311.4 | 389.4 | 654.9 | 642.5 | 1 |
| 4 | C:\EverMa | 2 | Oregon Renewables | 36 | 106.5 | 756.3 | 744.7 | 1 |
| 5 | C:\EverMa | 3 | Northwest Natural Gas | 36 | 115.8 | 745 | 733.4 | 2 |
| 6 | C:\EverMa | 4 | Columbia Sportswear | 36 | 110.7 | 756.3 | 744.7 | 3 |
| 7 | C:\EverMa | 5 | Clear Creek Distillery | 36 | 109 | 756.3 | 744.7 | 4 |
| 8 | C:\EverMa | 6 | Rogue Ales | 36 | 75.2 | 756.3 | 744.7 | 5 |
| 9 | C:\EverMa | 7 | Oregon Steel Mills | 36 | 99.6 | 756.3 | 744.7 | 6 |

SEARCHING PDF DOCUMENTS – TEXT PATTERN EXAMPLE

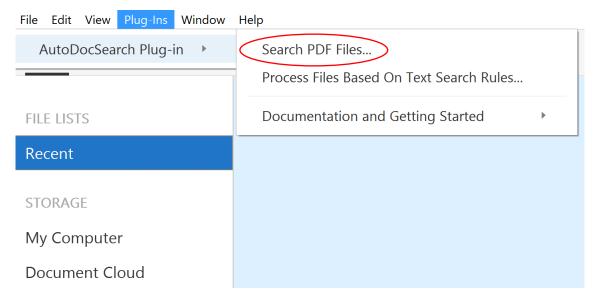
SEARCHING FOR SOCIAL SECURITY NUMBERS

We will demonstrate how to use AutoDocSearch to search PDF documents for a specific text pattern (social security number in this example) and create a hyperlinked report listing all found document locations. This example illustrates the use of regular expression syntax for describing a text pattern. You can think of regular expressions as wildcards with a lot more capabilities. Regular expressions allow finding all text strings that fit a specific pattern. For example, to find phone or social security numbers, a 10 digit account numbers that starts with 12, email addresses, zip/postal codes and etc.

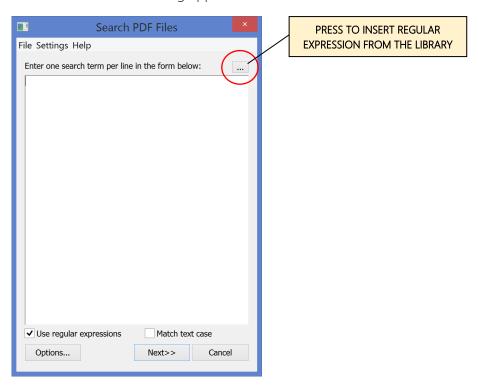
Here is the sample page from one of the documents we are going to search (with social security number highlighted):



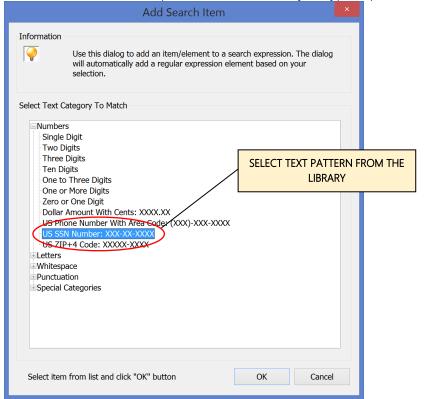
9. To begin, open Adobe Acrobat and select "Plug-ins > AutoDocSearch Plug-in > Search PDF Files... " from the main menu of Adobe Acrobat:



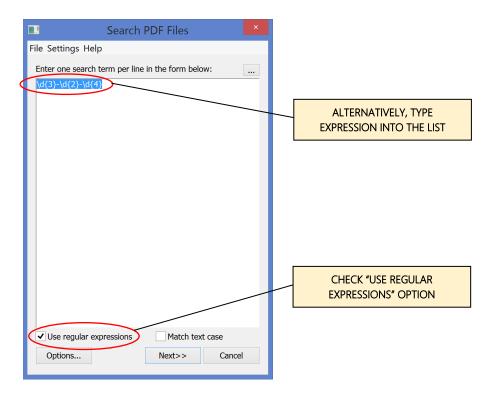
10. The "Search PDF File" dialog appears on the screen.



11. Press [...] button to select pattern from the library or type expression directly into the list.



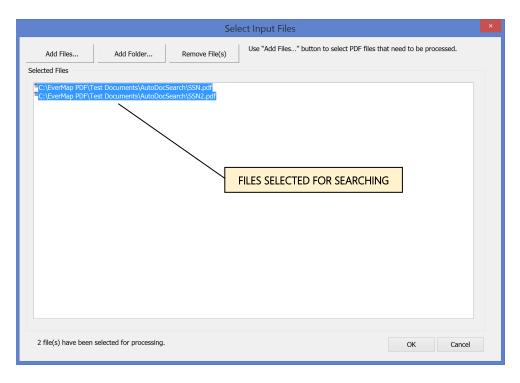
12. Alternatively, type the following regular expression into the search list: \d{3}-\d{2}-\d{4}. This expression describes the following text pattern: 3 digits, dash, 2 digits, dash, and 4 digits. This pattern will match US social security numbers such as 507-93-1234 or 588-22-9238.



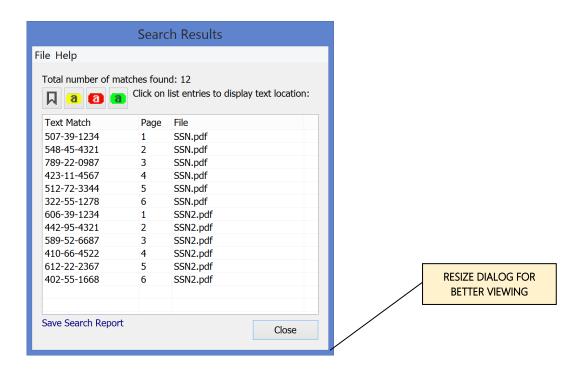
Make sure that "Use regular expressions" option is checked. If this option is checked, then everything entered into a search list should conform to regular expression syntax. There are countless online resources dedicated to regular expressions. Visit http://www.regular-expressions.info for detailed description of the syntax. See "Brief Introduction to Regular Expressions" topic below for a quick info on the basic syntax.

- 13. Use "File > Save Search List..." menu to save search list for future re-use. It can be loaded back later by using "File > Load Search List..." menu. The search settings will be saved into a file with *.search extension. Use search file to store useful expressions for frequent use or for exchanging settings with co-workers.
- 14. Optionally, press "Options..." button if you need to limit text search to a specific area on the page or select a processing page range. It is also possible to search only text that matches a user-defined font name and/or size.
- 15. Press "Next>>" button to advance to input file/folder selection step.

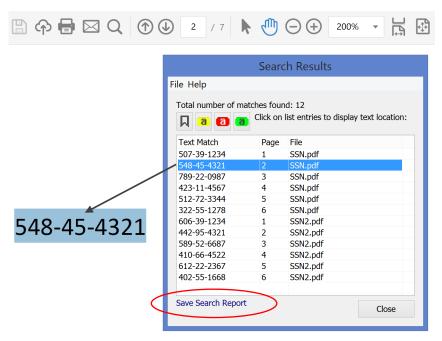
16. Press "Add Files" or "Add Folder" button to select input files for searching:



17. Press "OK" button to start searching. Once the search is completed, the "Search Results" dialog is shown. It shows the page number and file name for each matching text location. The dialog is resizable – change its size and position to simply viewing:



18. Click on a list entry to open a corresponding PDF document and display a matching text location:



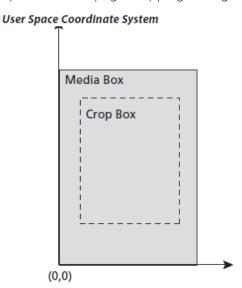
Click "Save Search Report" link or use "File > Save Search Report" menu to save current search results as HTML report file. The report file will be automatically open in the web browser:



Optionally, search results are automatically saved as spreadsheet-ready plain text CSV file. It can be opened by Excel or any other spreadsheet editor as well as in any text editor. The spreadsheet lists every matching location on a separate row, and records the following information: full path to the PDF file, page number, matching text, text coordinates in the page measurement units (points) – left, right, top and bottom, and a search rule number (index in the search list).

| | Α | В | С | D | Е | F | G | Н |
|----|-----------|------|-------------|------|-------|-------|--------|-------------|
| 1 | File | Page | Text | Left | Right | Тор | Bottom | Rule Number |
| 2 | C:\EverMa | 1 | 507-39-1234 | 72 | 128.9 | 720.8 | 706.2 | 1 |
| 3 | C:\EverMa | 2 | 548-45-4321 | 72 | 128.9 | 720.8 | 706.2 | 1 |
| 4 | C:\EverMa | 3 | 789-22-0987 | 72 | 128.9 | 720.8 | 706.2 | 1 |
| 5 | C:\EverMa | 4 | 423-11-4567 | 72 | 128.9 | 720.8 | 706.2 | 1 |
| 6 | C:\EverMa | 5 | 512-72-3344 | 72 | 128.9 | 720.8 | 706.2 | 1 |
| 7 | C:\EverMa | 6 | 322-55-1278 | 72 | 128.9 | 720.8 | 706.2 | 1 |
| 8 | C:\EverMa | 1 | 606-39-1234 | 72 | 128.9 | 720.8 | 706.2 | 1 |
| 9 | C:\EverMa | 2 | 442-95-4321 | 72 | 128.9 | 720.8 | 706.2 | 1 |
| 10 | C:\EverMa | 3 | 589-52-6687 | 72 | 128.9 | 720.8 | 706.2 | 1 |
| 11 | C:\EverMa | 4 | 410-66-4522 | 72 | 128.9 | 720.8 | 706.2 | 1 |
| 12 | C:\EverMa | 5 | 612-22-2367 | 72 | 128.9 | 720.8 | 706.2 | 1 |
| 13 | C:\EverMa | 6 | 402-55-1668 | 72 | 128.9 | 720.8 | 706.2 | 1 |

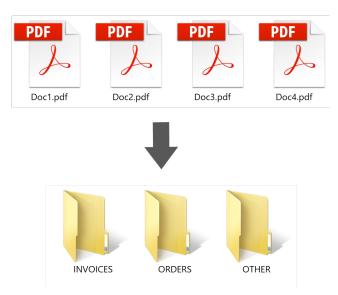
The text coordinates on the page are provided in PDF "user space" coordinate system and are measured in "points" (there are 72 points per inch). The origin is located in the lower left corner of the page and does not necessarily correspond to the bottom-left page corner. The origin location depends on the page cropping settings used in the specific PDF document.



COPYING PDF DOCUMENTS BASED ON TEXT SEARCH

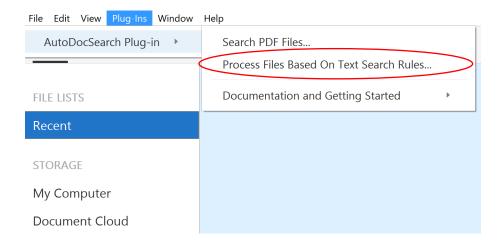
ORGANIZING DOCUMENTS INTO FOLDERS BY SEARCH

It is often necessary to take a set of PDF documents and organize them into different folders based on their content. For example, categorize incoming business documents into separate folders based on the text search. Put all invoices into "Invoices" folder and purchase orders into "Orders". Put the rest of the documents that do not match neither of these categories into "Other" folder. The following example, would assume that all invoices have the word "invoice" followed by a 3 to 8 digit invoice number, while purchase orders have the word "purchase order" followed by a 4 to 10 digit number. This chapter will illustrate how to configure AutoDocSearch to take documents from one or more folders and copy them into one of the three different folders based on matching text.

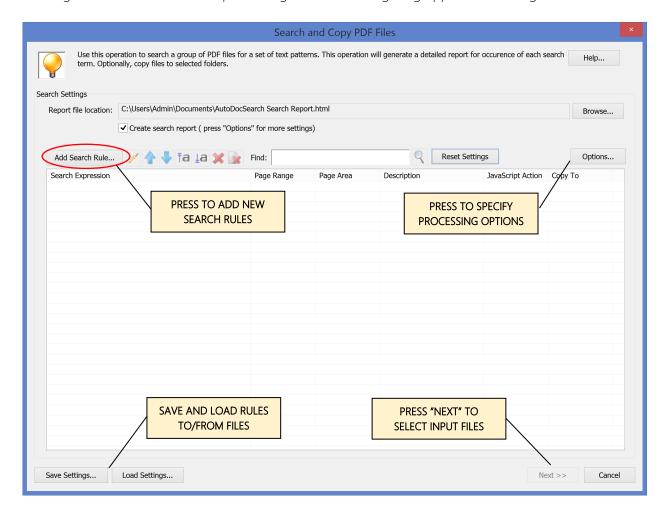


STARTING "SEARCH AND COPY PDF FILES"

To begin, open Adobe Acrobat and select "Plug-ins > AutoDocSearch Plug-in > Process Files Based on Text Search Rules..." from the main menu of Adobe Acrobat:



The "Search and Copy PDF Files" dialog appears on the screen. This dialog provides controls for creating one or more document processing rules and configuring application settings.

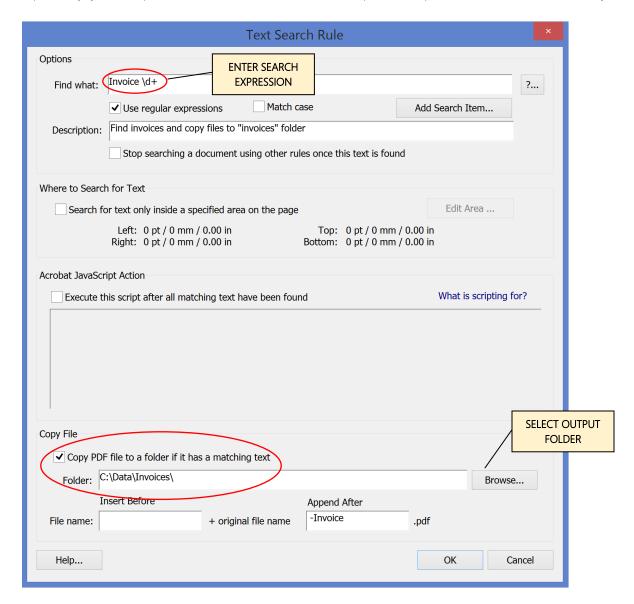


The following example is going to demonstrate how to use text patterns for searching and organizing PDF documents into multiple folders. In this tutorial, we are going to create two processing rules. The first rule is going to search for invoice numbers while the second one is going to look for purchase order numbers. If a document is matching a specific rule, it will be copied to a pre-defined folder. The special "no match" rule is going to be setup in application settings to process documents that did not match any of the rules. All documents without any text matches are going to be copied into "other" folder.

ADDING A SEARCH RULE

Press "Add Search Rule..." button to specify a first processing rule for handling files that contain invoice numbers. Use "Text Search Rule" dialog to specify a document processing rule. Basically, it is necessary to specify a search text and a folder where to copy a document if a match is found. You can use plain text or regular expression to search for text patterns. For example, type Invoice \d+ into a "Find what" entry field. This is an expression that matches the word *Invoice*

followed by one or more digits. It will match text such as *Invoice 03276487* or *Invoice 9234*. Make sure to check "Use regular expressions" option when using regular expression syntax such as \d+. Optionally, you can press "Add Search Item..." button to pick an expression from a built-in library.

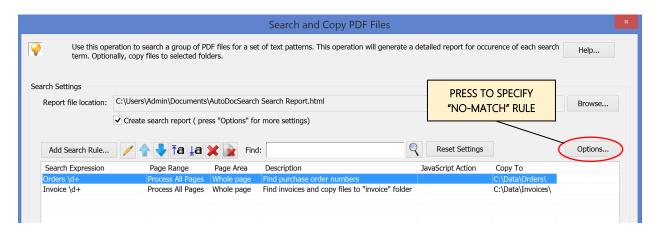


Check "Copy PDF file to a folder if it has a matching text" option and press "Browse..." button to specify a destination folder where to copy files. All files that match this rule will be copied to the selected folder. Optionally, use "Insert Before" and "Insert After" fields to modify file names of the output files.

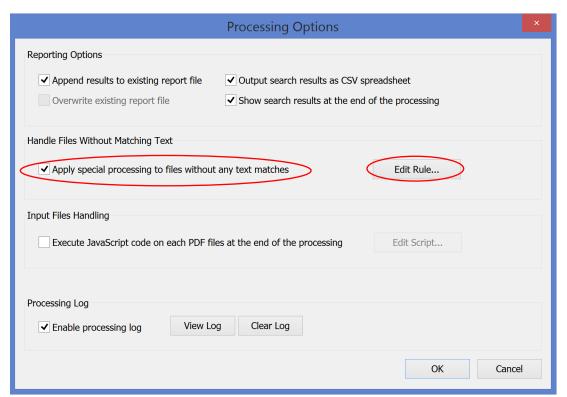
Press "OK" button once done editing this rule. Press "Add Search Rule..." button one more time and repeat this procedure while specifying different search text and output folder for handling purchase order documents. For example, use "Order \d+" as a search expression and select c:\Data\Orders folder for the output.

SPECIFYING "NO MATCH" RULE

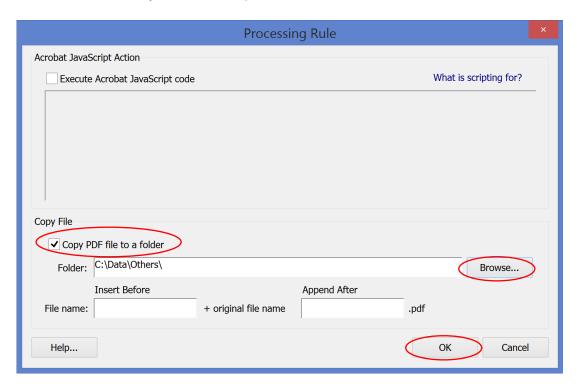
The next step (optional) is to specify a "No Match" rule to copy files that do not match any of the processing rules. If this is not required by your project, then you can skip this step. Press "Options..." button to access application settings:



Select "Apply special processing to files without any text matches" option and press "Edit Rule" button:



The "Processing Rule" dialog will appear on the screen. Specify the destination folder by selecting "Copy PDF file to a folder" option and press "Browse..." button to choose a destination folder. All files that did not match any rule will be copied there.



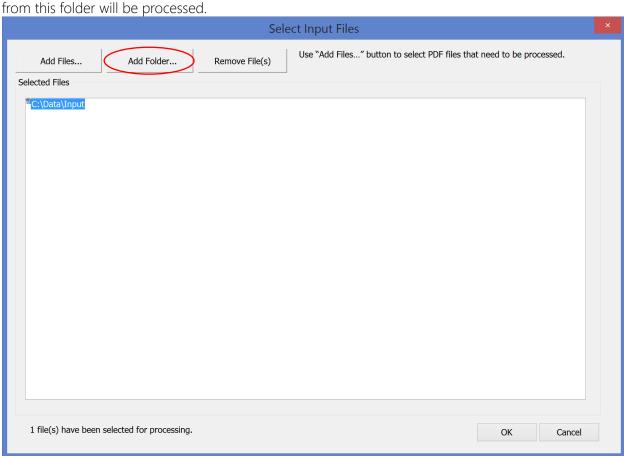
Close the dialog by pressing the "OK" button and close the "Processing Options" dialog as well. Now everything is ready for a test run.

Press "Next>>" button located in the lower-right cornet of the main screen to proceed to the selection of input files or folders.

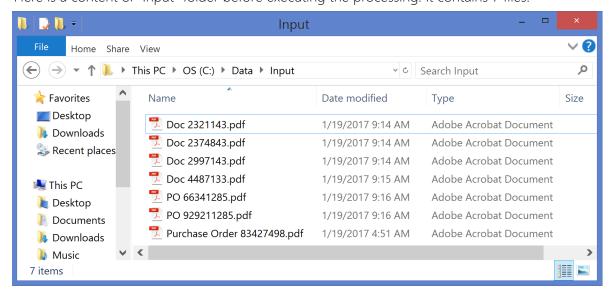


SELECTING INPUT FILES

Select input PDF files or folders for processing by pressing "Add Files..." and/or "Add Folder..." buttons. Press the "OK" button to start processing files. If a folder is selected, then all PDF files from this folder will be processed.



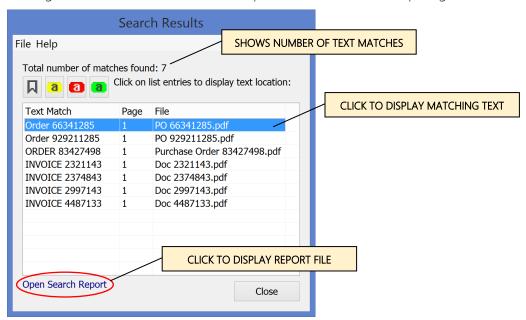
Here is a content of "Input" folder before executing the processing. It contains 7 files:



Press the "OK" button to start processing. Note that searching a large number of PDF documents can take some time depending on the number of rules used.

REVIEWING SEARCH RESULTS

Once the processing is completed, a "Search Results" dialog is shown on the screen. If you do not want to display this dialog, then edit application settings by pressing "Options" button located on the starting screen. There are a number of options available for the report generation.



This dialog shows the total number of matches for all rules used and provide a way to inspect text locations in the PDF documents. Simply click on the search entry to display a matching text. This will open a corresponding PDF document in a new window and highlight a matching text string.

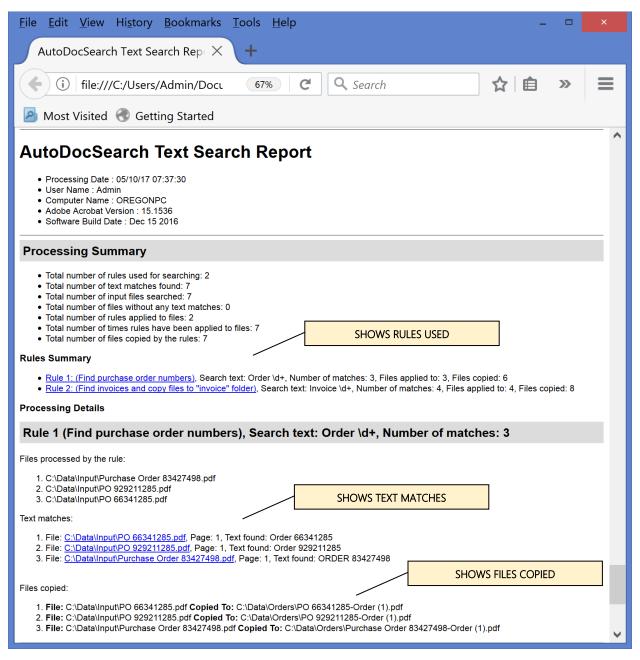
REVIEWING REPORT FILE

Click on "Open Search Report" link in the bottom-left corner of the dialog to open the processing report in the web browser. The application provides several different options for report generation. It is either possible to append search results to a single, existing report file or create a separate report file for each run. The difficulty with using a single report file is that it is necessary to scroll down to the bottom of the report file in order to see the latest results. Using multiple report files can produce many files depending on the frequence with which the operation is executed.

The report files consist of several sections:

- Report header: shows when and who executed the operation, and what software version was used.
- Processing Summary: lists all statistics such as number of rules used, number of text matches found, number of input files searched, and number of files copied. This section also lists a brief description of all rules used by the run.

- Processing details section: lists information separate for each rule. Each rule gets its own section that provides all details such as rule description, input files processed by this specific rule (files that matched the rule search settings), text matches (listing text, file and page number) and most importantly list of files copied, including input and destionation paths.

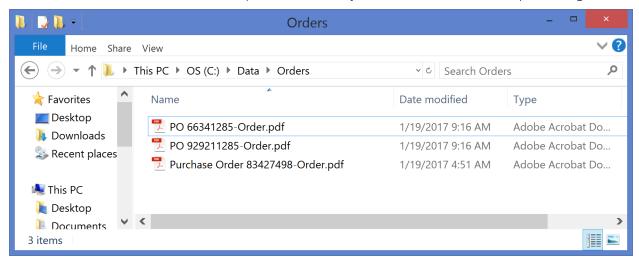


The report file is in HTML format and can be viewed and printed by any web browser. There is also an option available to generate a CSV (comma-separated values) version of the report file. CSV is a widely used text-based data exchange format supported by most spreadsheet applications including Microsoft Excel. It can be opened directly by Excel application. However, the CSV report has a

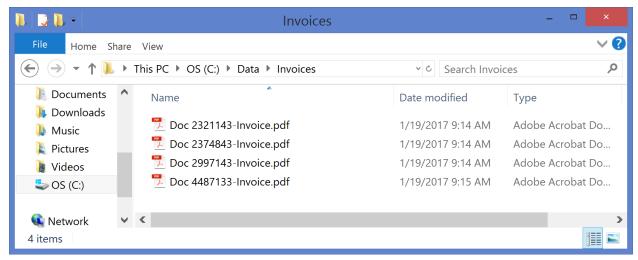
different formatting than the regular HTML report to conform to a spreadsheet layout. It lists one search result per row and provides text location and rule information for the text match.

REVIEWING OUTPUT FOLDERS

Now, lets inspect the content of the output folders as specified by the search rules. Three files have been copied from the "Input" folder to the "Orders" folder while appending "-Orders" at the end of the file name. These files have been copied because they have matched one of the processing rules.



The rest of the files have been copied to the "Invoice" folder per instructions by the "Invoices" rule. File names have been modified by appending "-Invoice" to the file name. The file name modification is part of the options provided by the rule and is fully customizable.



BRIEF INTRODUCTION TO REGULAR EXPRESSIONS

BASIC SYNTAX

| Expression | Meaning |
|------------------------------------|---|
| 0-9 and A-Z | All alphabetic characters and digits match themselves literally in regular expressions. |
| ^ \$. * + ? = \ / () [] {} | These characters have special meaning. Precede any of these characters with \ if you want to include them literally. |
| + | Match one or more occurrences of the previous term |
| * | Match zero or more occurrences of the previous term |
| ? | Match zero or one occurrence of the previous term |
| \d | Matches one digit |
| \d+ | Matches one or more digits |
| \d{2} | Matches exactly 2 digits |
| \d{3,7} | Matches 3 to 7 digits |
| \d? | Matches zero or one digit. |
| \w | Matches a single "word" character. It can be a letter, digit or underscore. |
| \s | Matches a single "space" character. It can be a new line or blank space symbol. |
| [ABCD] | One character from a group of symbols inside [] brackets. It matches either A,B,C or D. |
| [A-Z] | Matches one character from A to Z. |
| [^1357] | Matches one character that is not listed inside [] brackets. It will not match 1, 3, 5 or 7, but will match any other characters. |
| (USA Canada Mexico) | Use symbol to match alternatives. This expression will match either USA, Canada or Mexico. |

Sample regular expressions:

 $\d{3}-\d{2}-\d{4}-\mbox{matches US social security number, such as 507-82-9866} $$ d{10}-\mbox{matches 10 digits account number, such as 1209474398} $$ [A-Z]{2}-\d{5}-\mbox{two letters followed by the dash and 5 digits, such as ST-12345}$

Visit http://www.regular-expressions.info for in-depth description of the regular expressions.