

# SPARK



## Document Scanning for SharePoint User Manual

Ver. 1.0.0.0



Improve the way you work ....

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# 1 Introduction

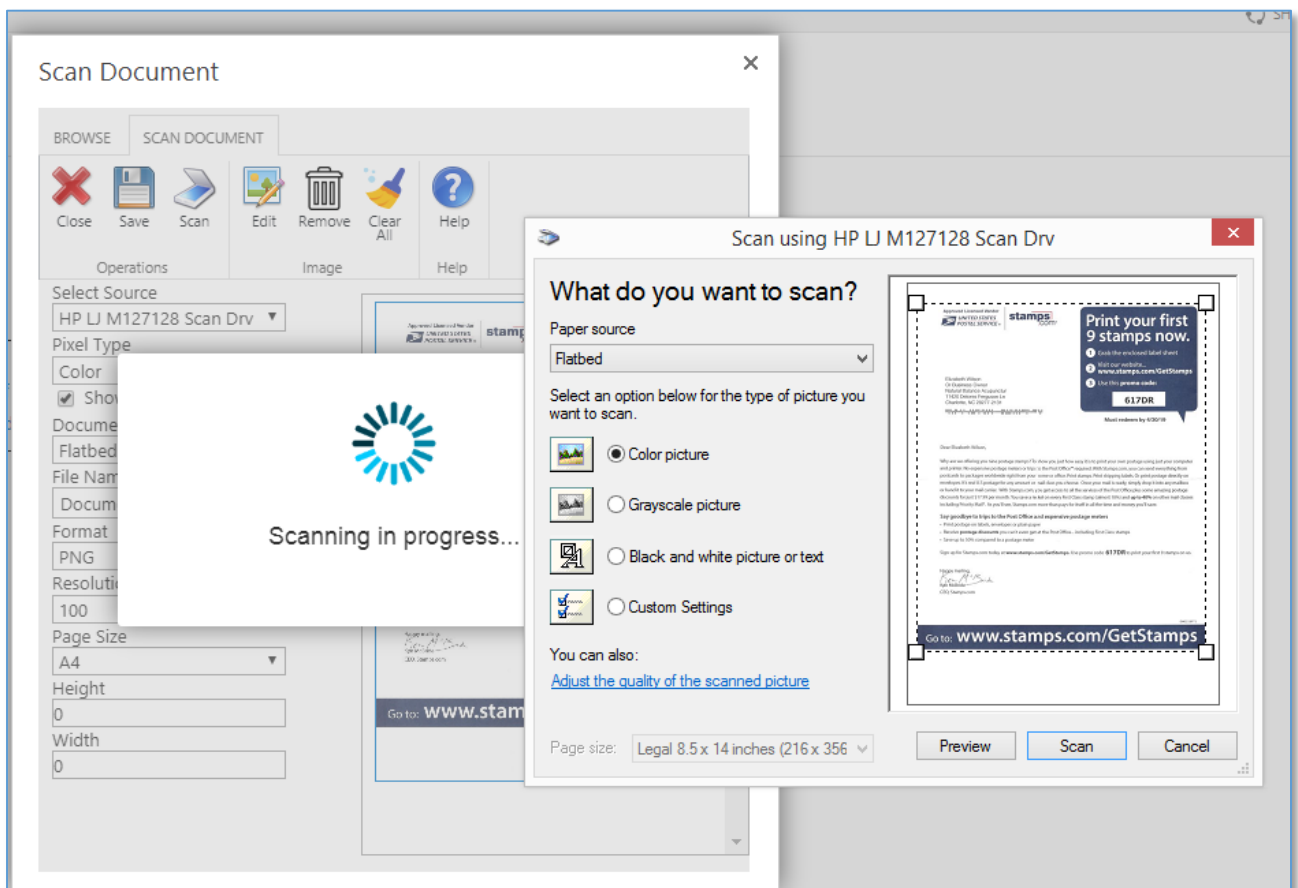
Paper is a painful, costly part of any business. Physical workflows and file cabinets slow down productivity and cause massive losses in efficiency. SharePoint is a logical storage point for many businesses, and with SPARK Document Scanning, you can easily scan your content to SharePoint Online or On-Premise with minimal effort.

SPARK Document Scanning is a powerful tool for scanning or composing documents from existing physical files and attaching/uploading them to SharePoint libraries or lists items as images or multi-pages document's files formats, i.e. PDF and TEXT.

This great tool enables the user to connect directly to his/her document scanning or image capturing devices that supports WIA or TWAIN drivers, running them to capture physical documents or images, and retrieving captured documents streams in order to save them in SharePoint Document Library or attach them to list item.

With easy-to-use interface of SPARK Document Scanning, your employees will be able to scan documents right away allowing you to save on training your staff.

The captured images can be edited on the fly using SPARK Image Editor, in order to correct any issue with them, or edit/add certain aspects to these images before converting them into an attached files.



## **1.1 SPARK Document Scanning Features**

- Fully integrated With SharePoint 2013, 2016, 2019 and Office 365.
- Fully integrated with SPARK Forms Builder and SPARK Workflow.
- Scan Document and upload them directly to your documents libraries.
- Scan Document and attach them directly to your list items.
- OCR (convert image to text) 6 languages (Arabic, English, French, Hebrew, Dutch and Spanish)
- Create a searchable PDF file format, that contains recognized text through the OCR engine, the file contents will be searchable in SharePoint and in the PDF viewers as well.
- Barcode recognition
- Saving pages as: Single document (PNG/JPEG/BMP) OR Multi-pages Document (PDF/PDF Searchable/TEXT)
- Regular and Quick Scan modes
- Document Zonal Feature: Which enables the user to create fully automated document recognition templates, in order to read documents data and save these data to the library columns in the SharePoint site without any human interaction. All this will generated automatically once the user scan a document and select its compatible template. This feature is empowered by AI and OCR technology.
- Advanced compression technologies to enable best document quality with smallest file size
- All types of Windows-compatible scanners: simple desktop and professional scanners with feeders, local-connected (USB) and network-connected (IP) scanners.
- All major browsers (Internet Explorer, Chrome, Firefox and Edge).

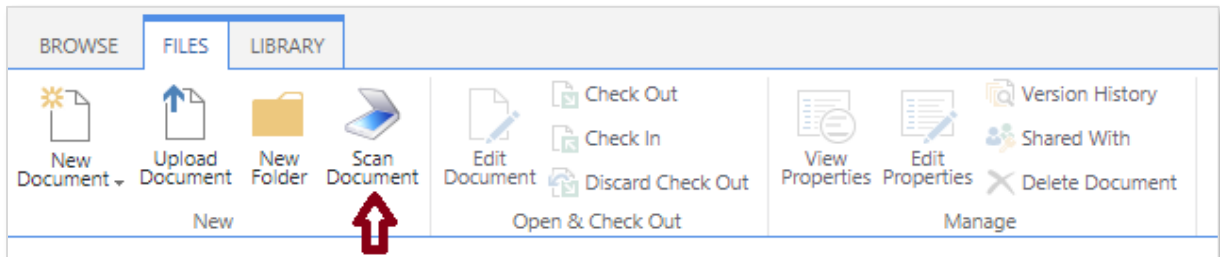
## 2 Using SPARK Document Scanning

In this section, you will learn how to use SPARK Document Scanning to scan documents directly from scanning devices to your SharePoint lists and libraries.

### 2.1 Scan documents to a documents library

You can scan a document, convert it to a multi-pages document file such as PDF and upload it to the library with a click.

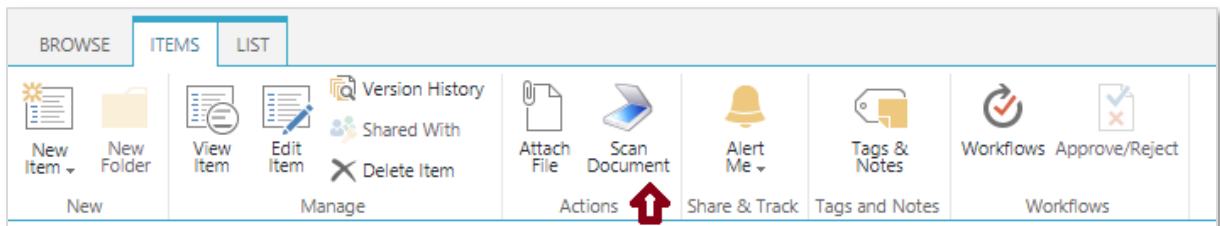
In order to run SPARK Document scanning on a document library click on the "Files Tab" on the library's top ribbon then click on "Scan Document" button in the "New" tab group.



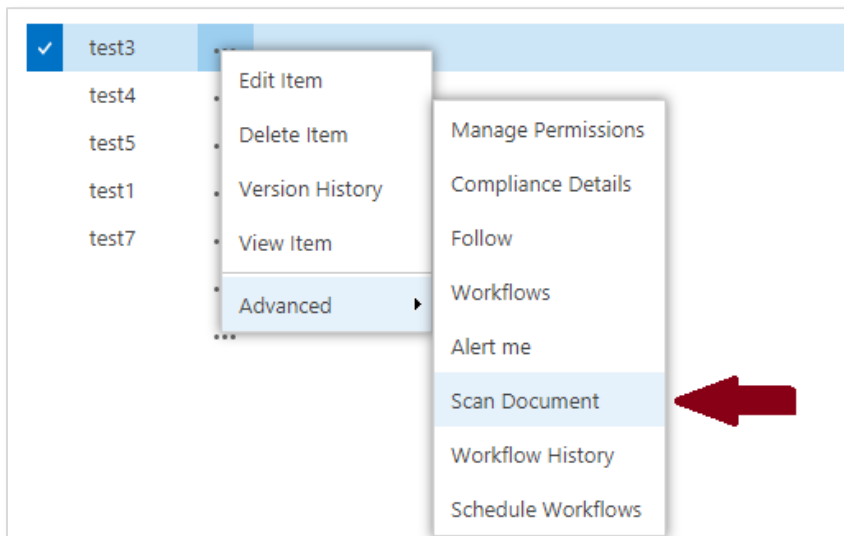
### 2.2 Scan documents as a list item attachment

You can scan a document, convert it to a multi-pages document file such as PDF and upload it as a list item attachment with a click.

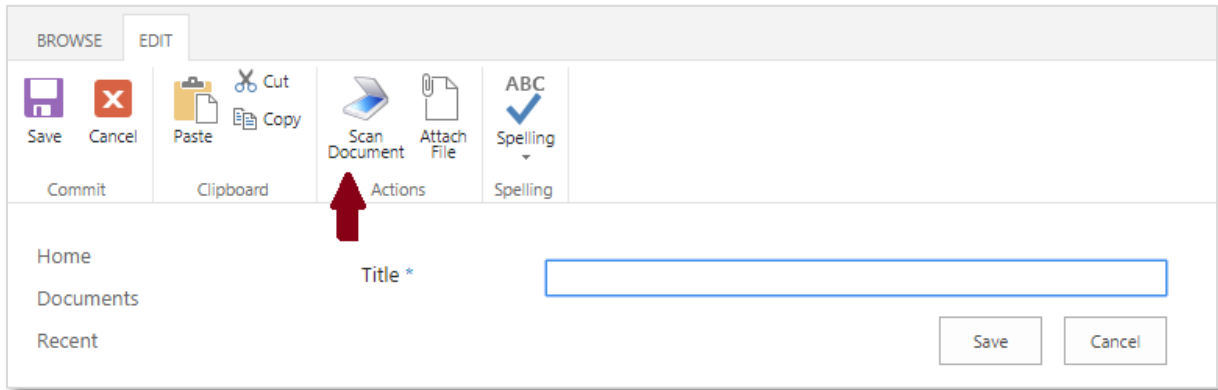
In order to run SPARK Document scanning on a list select the item you wish to attach the scanned document to, click on the "Items Tab" on the library's top ribbon then click on "Scan Document" button in the "New" tab group.



Another way to use SPARK Document Scanning with a list item is to use the item side menu.



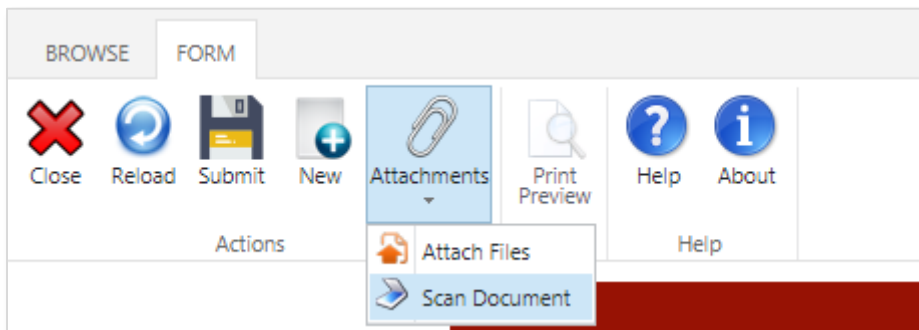
You can also attach scanned documents directly in the “New” and “Edit” list item’s form pages.



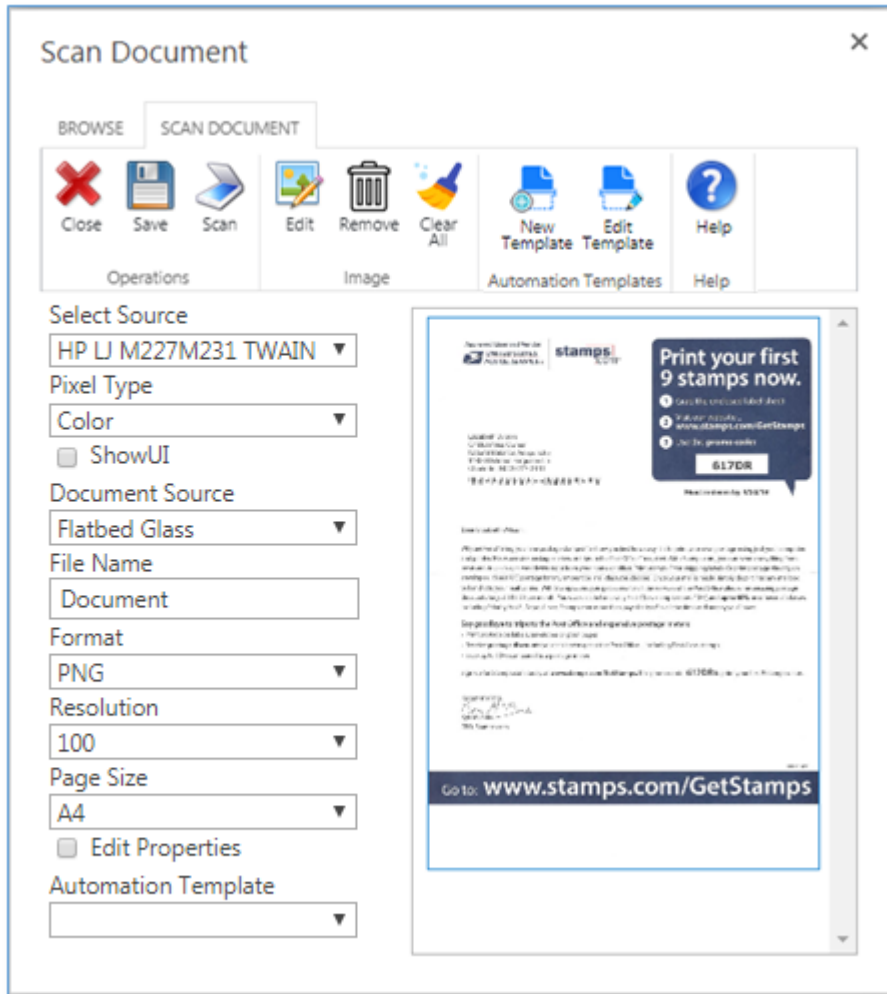
Note that this option is not available in SharePoint 2019 and Office 365 Modern User Interface.

## 2.3 Scan documents as a SPARK Form attachment

You can scan a document, convert it to a multi-pages document file such as PDF and upload it as a SPARK Form’s attachment with a click. Note that this feature is available on SPARK Forms Builder 8.5 and later versions.



## 3 Document Scanning Settings



- Select Source: Select the device source driver from this property's list; you may have multiple devices attached to your machine and you can select the related source to connect to each one of them.
- Pixel Type: This property provides three options (Color, Black and White, Gray) to specify the captured images pixel's type. Note that the capturing speed and file size are highly affected by this property.
- Show UI: Selecting this property will bypass the capturing functionality of the web application and will open the scanners/image capturing device native application in order to be used to capture and return images/documents stream back to the web application.
- Document Source: This property provides three options (Flatbed Glass, Auto Feeder, and Duplex) in order to specify the documents source the device must use to get the physical documents and convert them into digital ones.
- File Name: This field is to specify the file name that would be attached to the form; this file name will have the file extension selected in the "Format" property list.
- Format: This property provides five types of files formats "BMP (Image), JPEG (Image), PNG (Image), TEXT (Multi-Pages Document) and PDF/PDF Searchable (Multi-Pages Document)" in order to specify the converted to file format when

saving the retrieved images stream into an attached file. The file format can be a single file type such as images format (BMP/PNG/JPG) or a multi-pages document format such as (PDF/PDF Searchable/TEXT).

- Resolution: This property provides the numeric number of the resolution value/s to be retrieved by the capturing device, the numeric number represents the DPI (Dot per Inch) value, and this value is directly proportional to the quality of the captured image and to the file size as well.
- Page Size: This property provides four types of page sizes (A3, A4 (Default), Letter and Custom) in order to specify the captured page size according to the width and height measurements proportional with the paper type size. Note that in case of selecting "Custom" page size the user must specify the width and height of the page size manually.
- Height/Width: these two fields are enabled when the user selects custom page size, in order to specify the custom page size to be scanned/captured.  
Note that these properties will be hidden in case of selecting WIA/Twain source driver.
- Language: This field becomes visible when you select the format type of the scanned document to be PDF (Searchable) or TEXT in order to select the language you want the internal OCR engine to recognize during the document generation process. The supported languages are (Arabic, English, French, Hebrew, Dutch and Spanish).
- Edit Properties: This field becomes visible when you run SPARK Document Scanning on a document library, if this field is checked then it will show the document library edit form once the scanned document is saved, in order to allow the user to enter the document properties.
- Automation Template: This field becomes visible when running SPARK Document Scanning on a document library, the user will be able to select a saved automation template on this library in order to automate the meta data collecting process once the user clicks the save button.

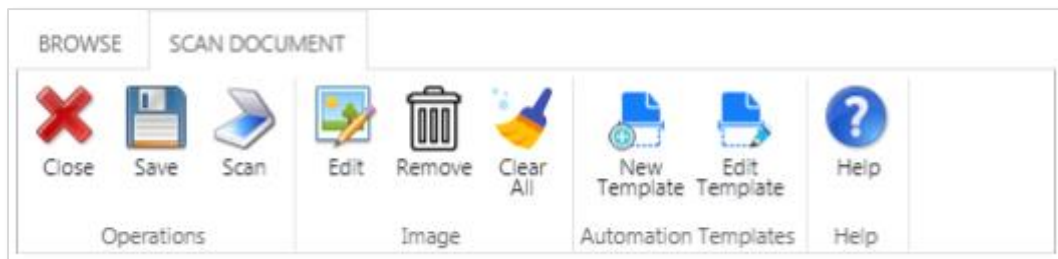


## 4 Document Scanning Top Ribbon

SPARK Document Scanning Ribbon is located at the top side of the Document Scanning page/dialog. The main tab name of the ribbon is "Scan Document", which contains four main groups "Operations, Image, Automation Templates and Help". Each group has a set of buttons that described below in details.

Important Notes:

- 1- The "Image" group is hidden by default, once you select a scanned image in the scanned images area; this group becomes visible.
- 2- The "Automation Templates" group is only available when running SPARK Document scanning on a document library.



- **Close:** Will close the document scanning popup dialog. If the current form has not been saved, a warning message will appear to save before closing. If the form is not saved, the unsaved work will be lost.
- **Save:** Will convert the scanned images into a digital file format according to the settings in the "Document Scanning" dialog, and attach the file to the form.
- **Scan:** Will initiate the scanning process with the connected device, note that you need to select the source driver to connect with, from the "Select Source" dropdown field property. If the user selects the "Show UI" checkbox, then the application will run the native scanning/capturing application that the source driver is associated with.
- **Edit Image:** This button will open "SPARK Image Editor" web application, and loads the selected image in it for editing, please refer to "SPARK Image Editor" section for more information about this tool.
- **Remove Image:** This button will remove the selected scanned image stream and review picture from the system.
- **Clear All:** This button will remove all scanned images streams and their review pictures from the system.
- **New Template:** This button allows creating a new document automation template, to automate archiving and extracting metadata from scanned documents and saving these data to the library columns automatically without any human interaction. For more information, check the "Zonal and Document Automation" section in this manual.
- **Edit Template:** This button allows editing already created "Automation Templates". For more information, check the "Zonal and Document Automation" section in this manual.

## 5 Zonal and Document Automation Feature

This topic applies to SPARK Document Scanning Enterprise Edition only.

The Zonal feature in SPARK Document Scanning is a great tool to automate the collecting of data from scanned images/pages and inserting them into specified columns in the document library, in a fraction of a second, without any human intervention.

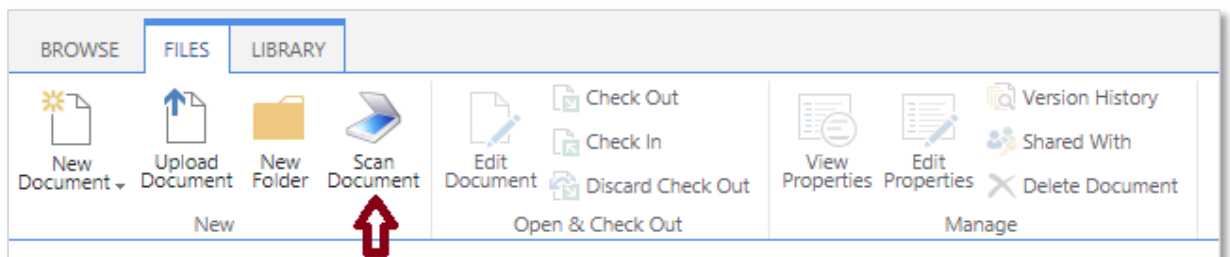
The user will be able to create multiple document automation templates for his physical paper forms, draws zone areas in each template's page in which he/she wants to get data from when initiate the scanning process and map these areas to library columns, visually without the need to write any line of code. Once initiating the scanning process, the user will be able to select the template type that matches the type of the physical document that been scanned, the OCR engine analyses the specified areas in the template and converts these areas into a recognizable texts, then inserts them into the library's columns.

Note: in order to enable a user to create and manage automation templates he/she must have at least "Manage List" permission on that document library.

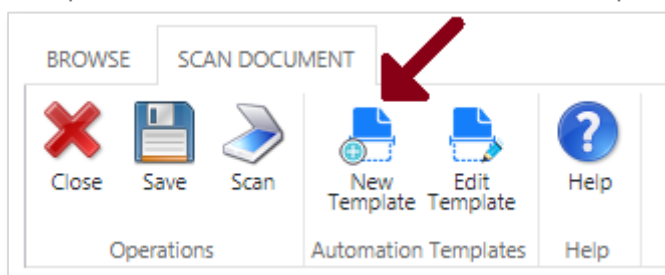
### 5.1 Create a new automation template

In order to create a new automation template you can follow these steps:

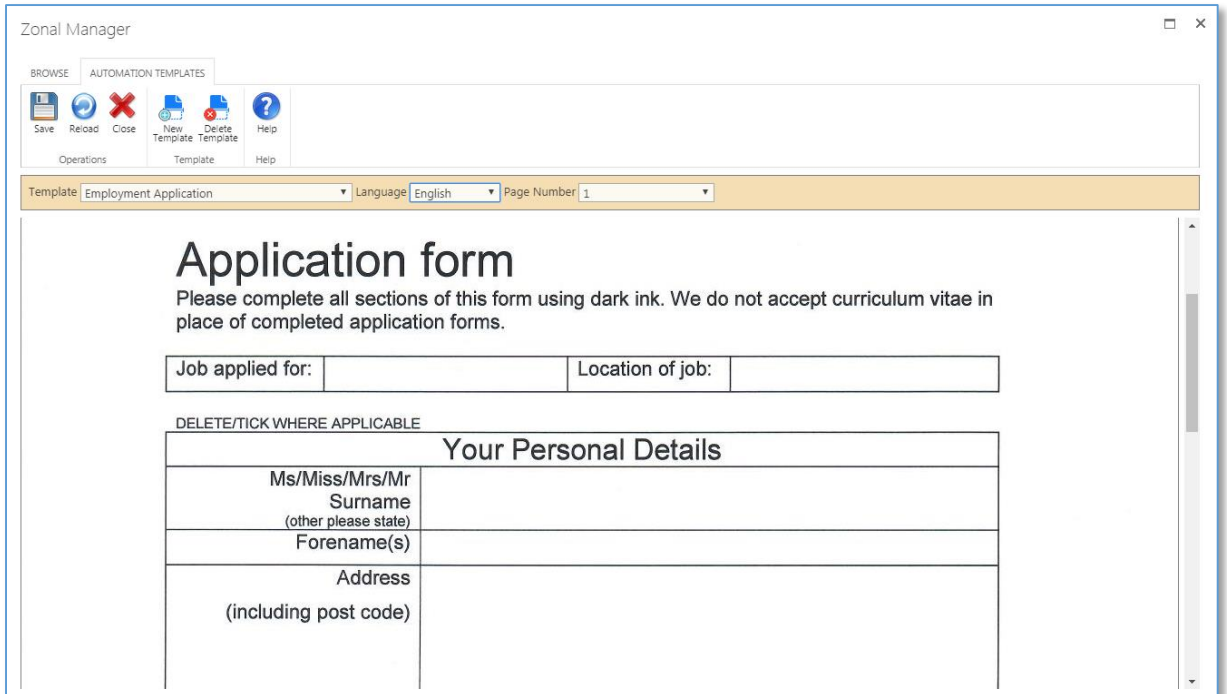
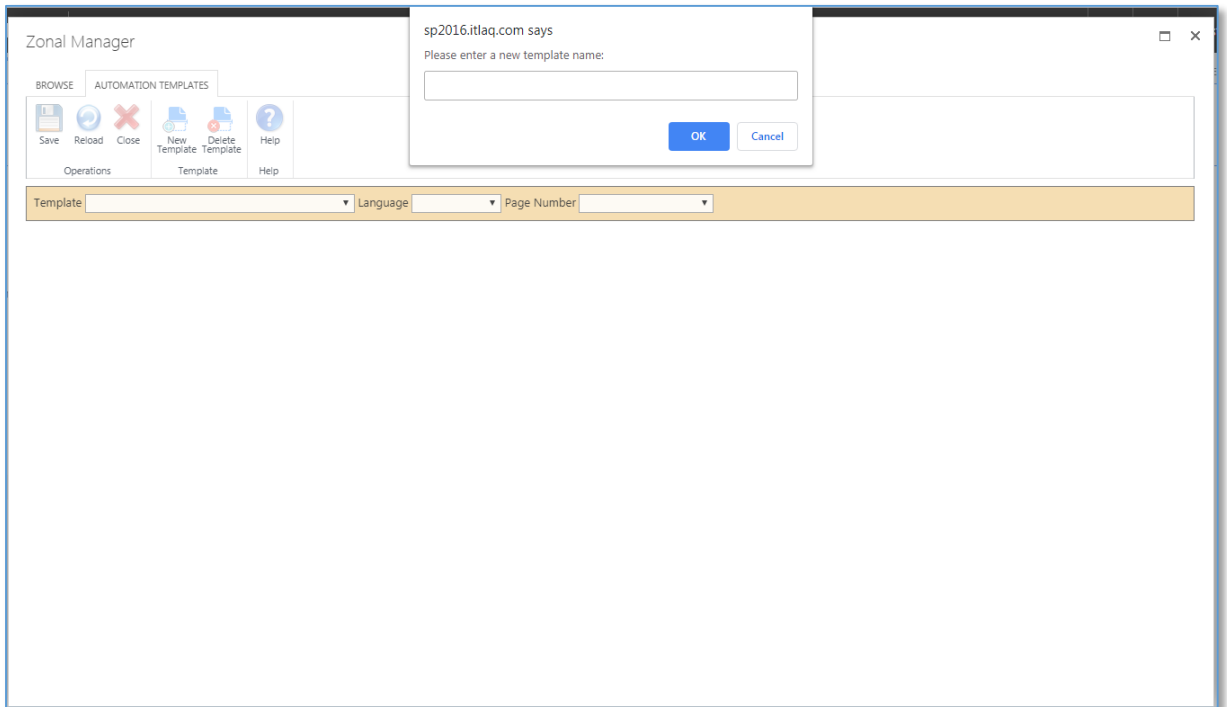
- 1- Run SPARK Document scanning on a document library, click on the "Files Tab" on the library's top ribbon then click on "Scan Document" button in the "New" tab group.



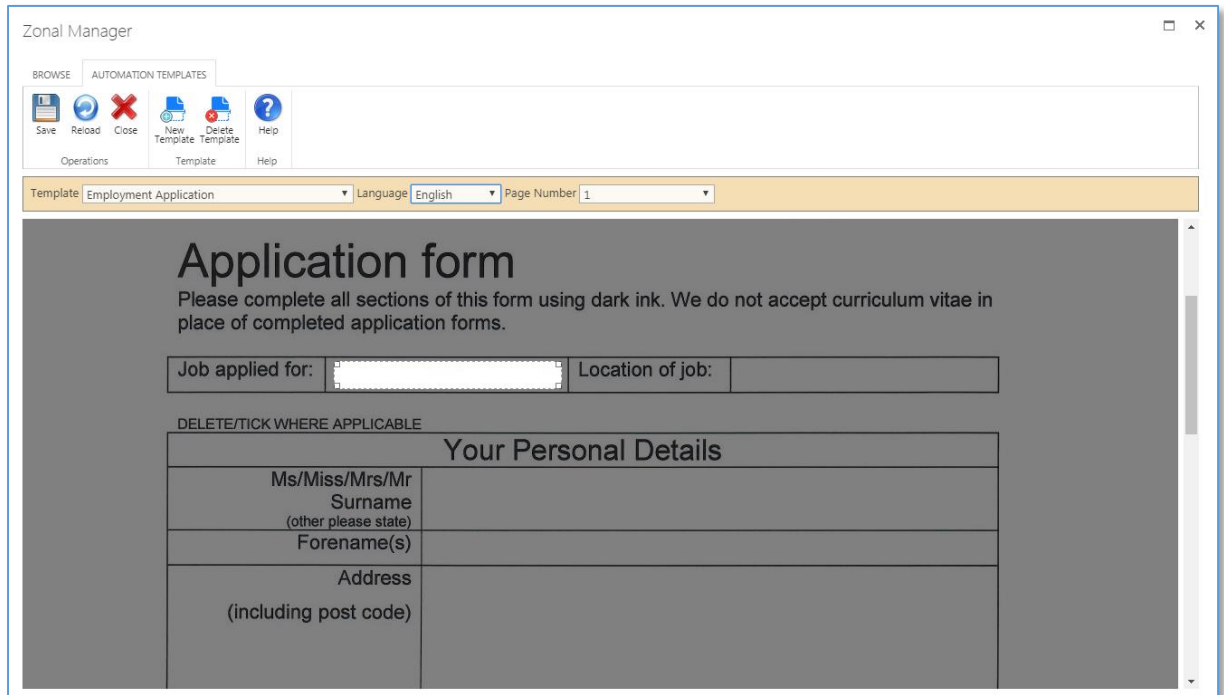
- 2- Scan the physical/paper document you want to create the automation template for, it can be any type of documents such as invoices, HR forms, support documents, medical/patients forms, financial forms, legal forms ...etc.
- 3- Click on the "New template" button, at the top ribbon of the document-scanning dialog. You cannot create a new automation template if you did not initiate the scan process first as mentioned on the above point.



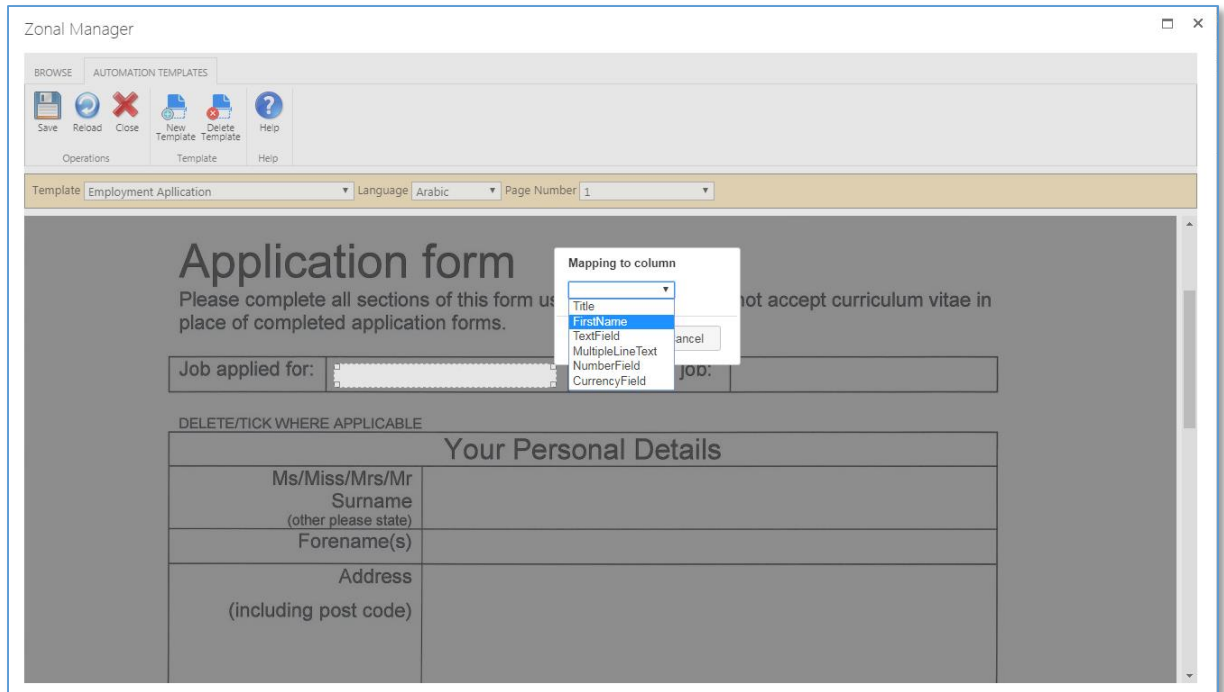
- 4- The Zonal dialog will appear, and you need to specify the template name first, note that duplicate template names is not allowed, Then you have to select the OCR language you want to recognize and the page number you want to edit.



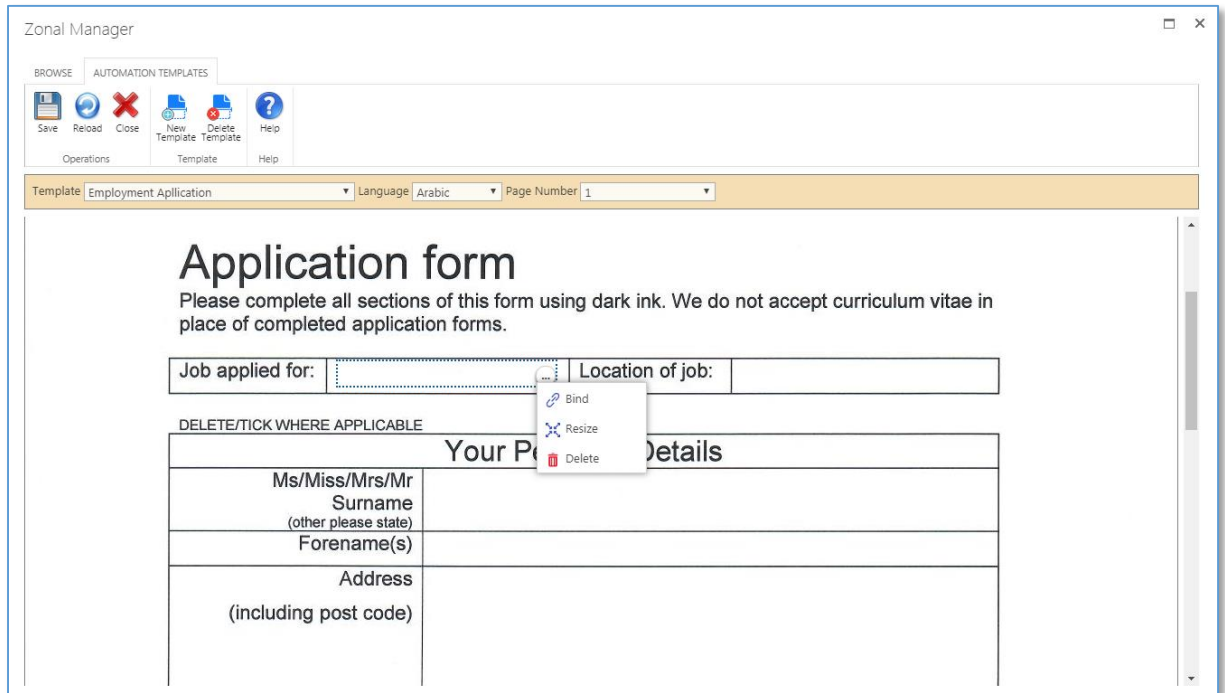
- 5- You can now start editing the template for the scanned document by drawing zones "Boxes" on the template page image to specify the areas you want the OCR to recognize and render the text from. You can draw as many boxes as you want as there is no limitation for zoning the template pages.



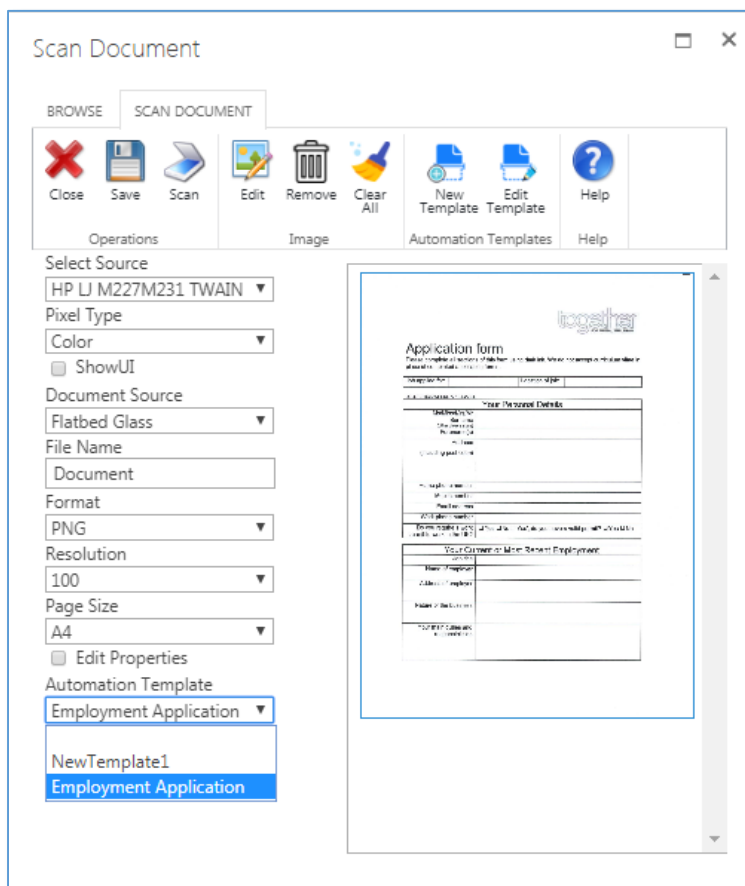
- 6- Once you draw the zone box, you will be required to map it to a library column in order to save the recognized data to it through the automation process.



- 7- Every zonal box has a menu that appears by clicking on the three dots icon at the lower right side of the zone box. The menu contains three operations:
- Bind: To bind the selected box to a library column.
  - Resize: To allow resizing the selected box.
  - Delete: To the delete the select box.



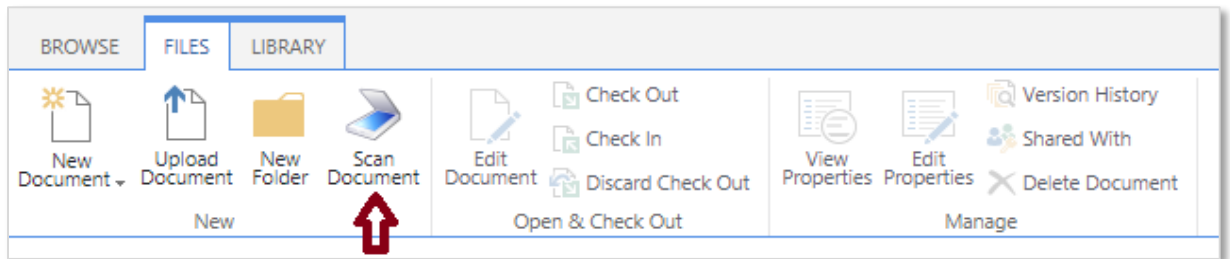
- 8- When finishing the document zoning, you can save the template.
- 9- The next scanning attempt you will find the template name in the automation template dropdown list which you can select before saving the scanned document in order to initiate the recognition automation process.



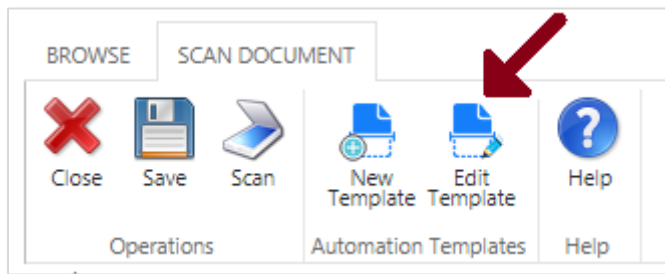
## 5.2 Edit automation templates

In order to edit already created automation templates on a specific library you can follow these steps:

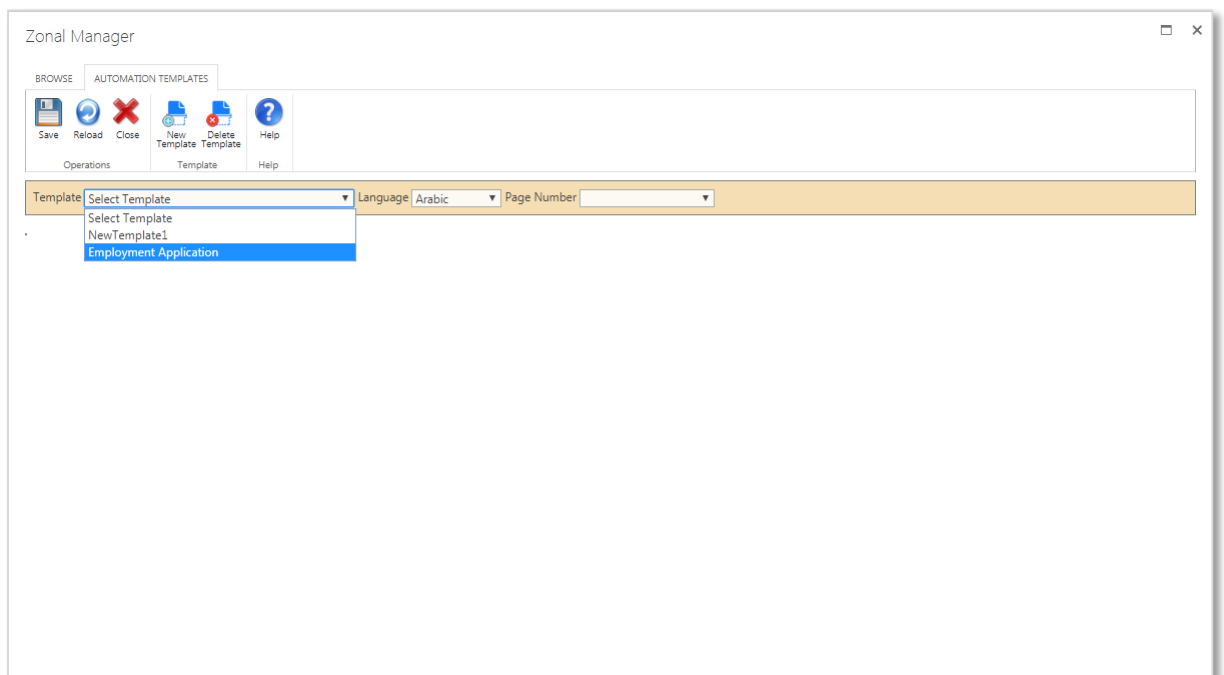
- 1- Run SPARK Document scanning on a document library, click on the "Files Tab" on the library's top ribbon then click on "Scan Document" button in the "New" tab group.



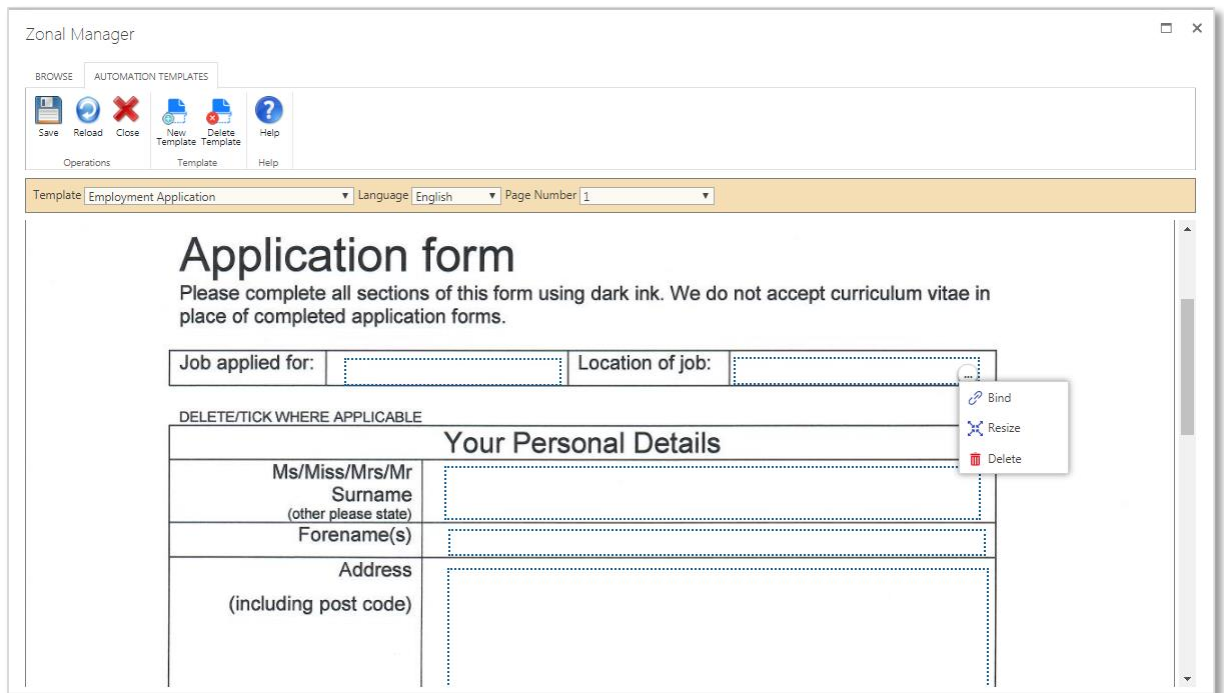
- 2- Click on the "Edit template" button, at the top ribbon of the document-scanning dialog.



- 3- The Zonal dialog will appear, and you can select the template name to edit it from the zonal dialog "Template" drop down field.

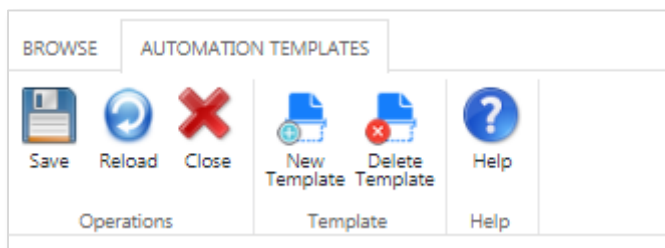


- 4- Once you select the template name, the saved template images with zonal areas will appear and you select the page number to navigate between the document pages.



- 5- You can click on the “three dots” menu icon in order to change the mapped columns, resize the zone box or delete it from the template.
- 6- Click on the save button to save changes to the template.

### 5.3 Zonal Manager Top Ribbon



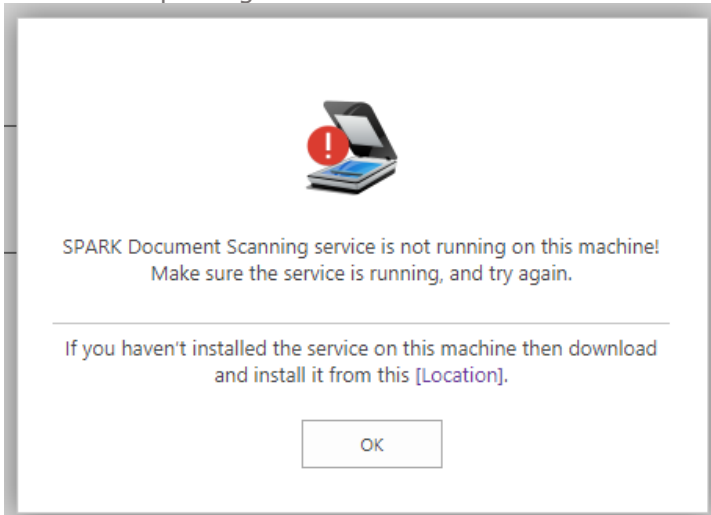
- **Save:** Will save current template in the system.
- **Reload:** Will reload the current dialog, If the current template has not been saved after changes been done, a warning message will appear to save before closing; otherwise, the unsaved work will be lost.
- **Close:** Will close the Zonal Manager dialog. If the current template has not been saved after changes been done, a warning message will appear to save before closing; otherwise, the unsaved work will be lost.
- **New Template:** Will open new template dialog, If the current template has not been saved after changes been done, a warning message will appear to save before closing; otherwise, the unsaved work will be lost.
- **Delete Template:** Will delete current open template.
- **Help:** Will open the solution online help.

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## 6 Document Scanning Windows Service

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In order to allow SPARK Document Scanning web application to communicate with your devices, you need to download and install SPARK Document Scanning Application installation package, in order to do that you can simply open SPARK Document scanning, the web application will try calling SPARK Document Scanning windows service, if the service is not installed or is not running on your windows operating system then the application will show you the following error dialog that contains a hyperlink to the installation package download location.



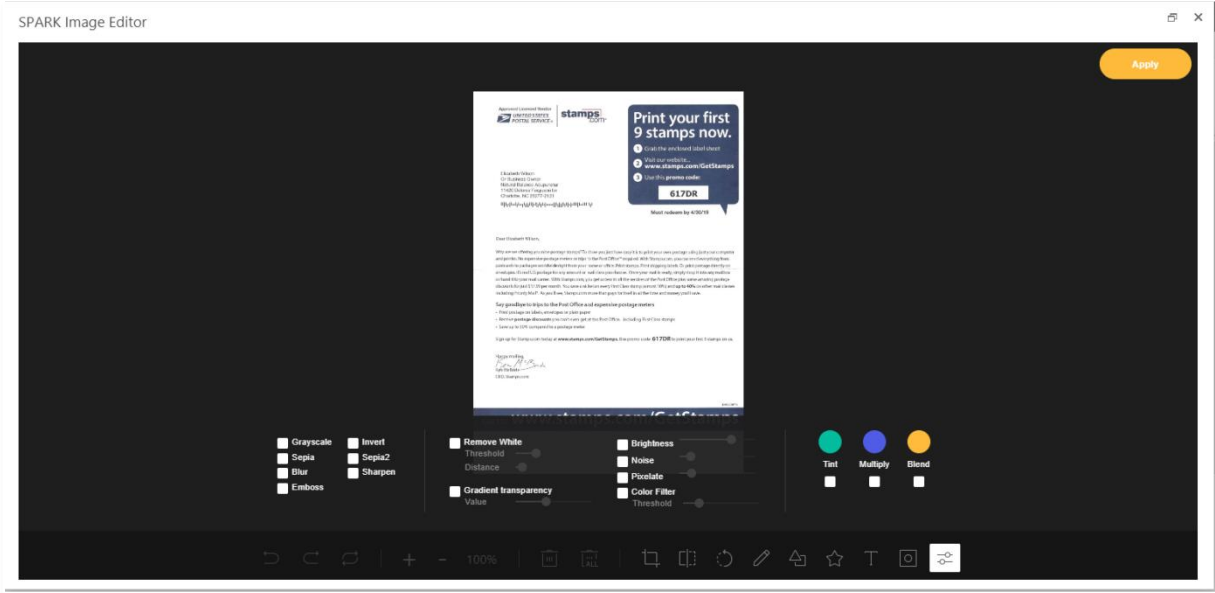
Click on this link to download and install the application on your windows OS. For more information about how to install SPARK Document Scanning Application on your Windows OS please refer to "How to Install SPARK Document Scanning Windows Application on Your Windows OS" section in this user manual.

Note that SPARK Document Scanning Application supports windows 7/8/8.1/10.



## 7 SPARK Image Editor

This great powerful tool enables you to edit your scanned images through your web browser without the need to download or edit them through expensive image editor applications which will require uploading/attaching them again to the form. SPARK Image Editor has many great features to empowering you editing images the way you want.



### SPARK Image Editor Features:

- Undo/Redo (With shortcut)
- Crop
- Flip
- Rotation
- Zoom in/Zoom out
- Free drawing
- Line drawing
- Shape
- Icon
- Shape
- Text
- Mask Filter
- Image Filter (Grayscale, Invert, Sepia, Blur Sharpen, Emboss, Remove White, Gradient Transparency, Brightness, Noise, Pixelate, Color Filter, Tint, Multiply, Blend).

## 8 How to Install SPARK Document Scanning Application on your Windows OS

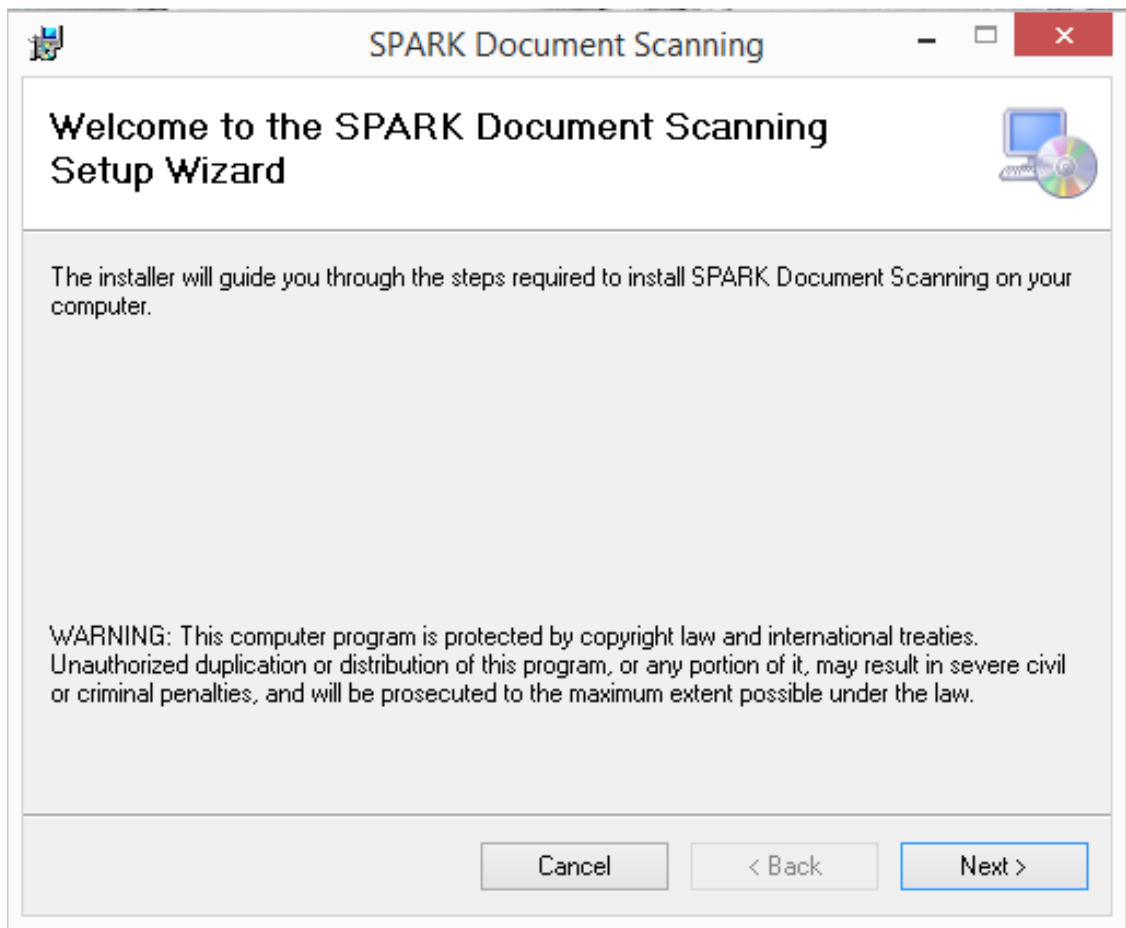
SPARK Document Scanning Windows Application consists of two active parts:

- **The Windows service part:** which will be installed and configured to run automatically on your windows by the installation process, the user will not interact in any mean with this part, it will be always hidden and running in the background of windows.
- **The Windows application part:** which will be installed on a specified location in your machine's drive, this application will be called by SPARK Document Scanning Service when needed, it will also be always hidden and running in the background of windows.

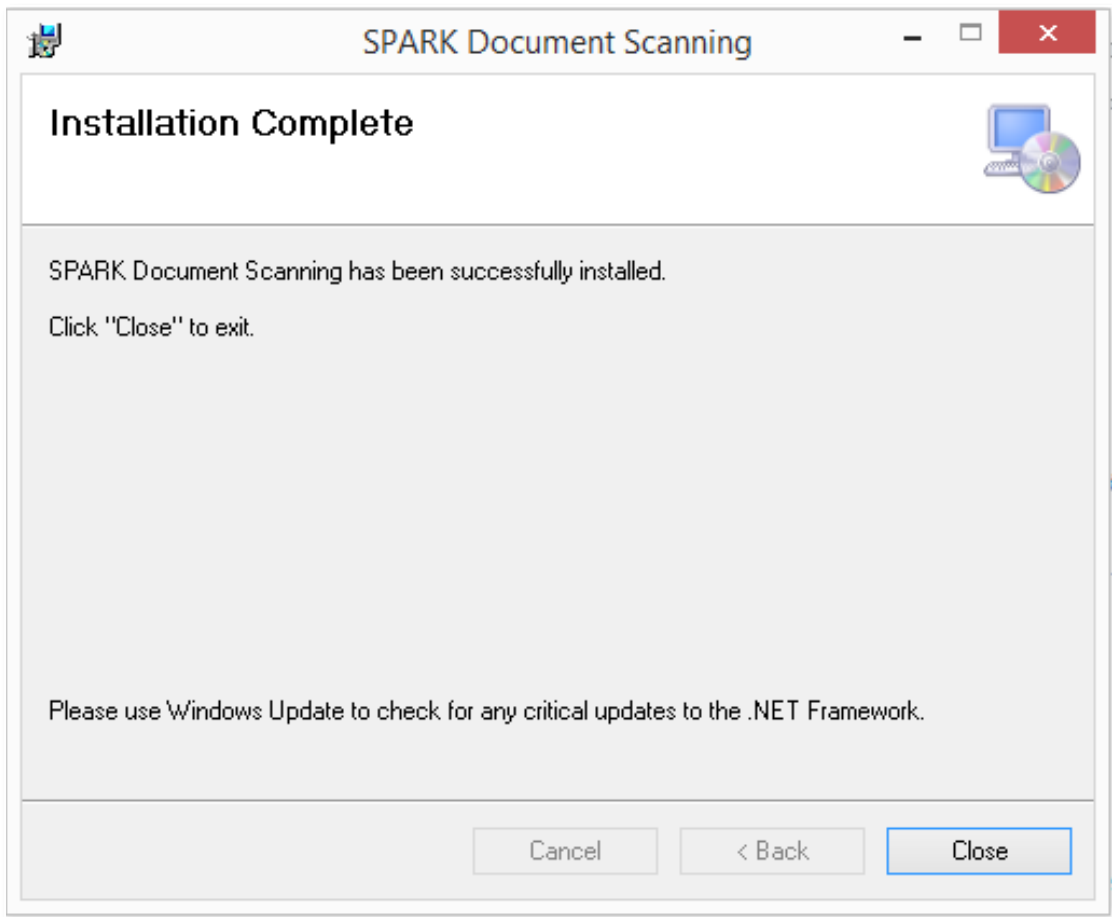
Note: the user will be not able to interact with these two parts at all, their purpose is limited to work and interact with SPARK Web application only.

### Installation steps:

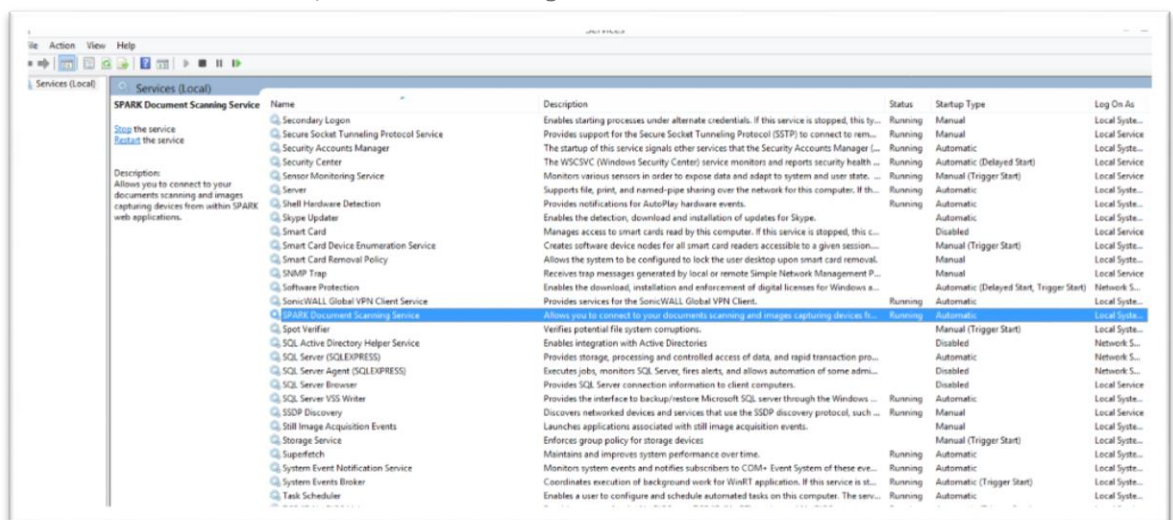
1. Download SPARK Document Scanning Application installation package.
2. Run the installation file, you need to have full privileges on your windows OS in order to fully install this application.
3. The installation wizard will be initiated and you will see the following screen:



4. Click "Next" and select the installation folder to install the application in it, or you can simply use the default location of the installation wizard, and then complete the installation process.



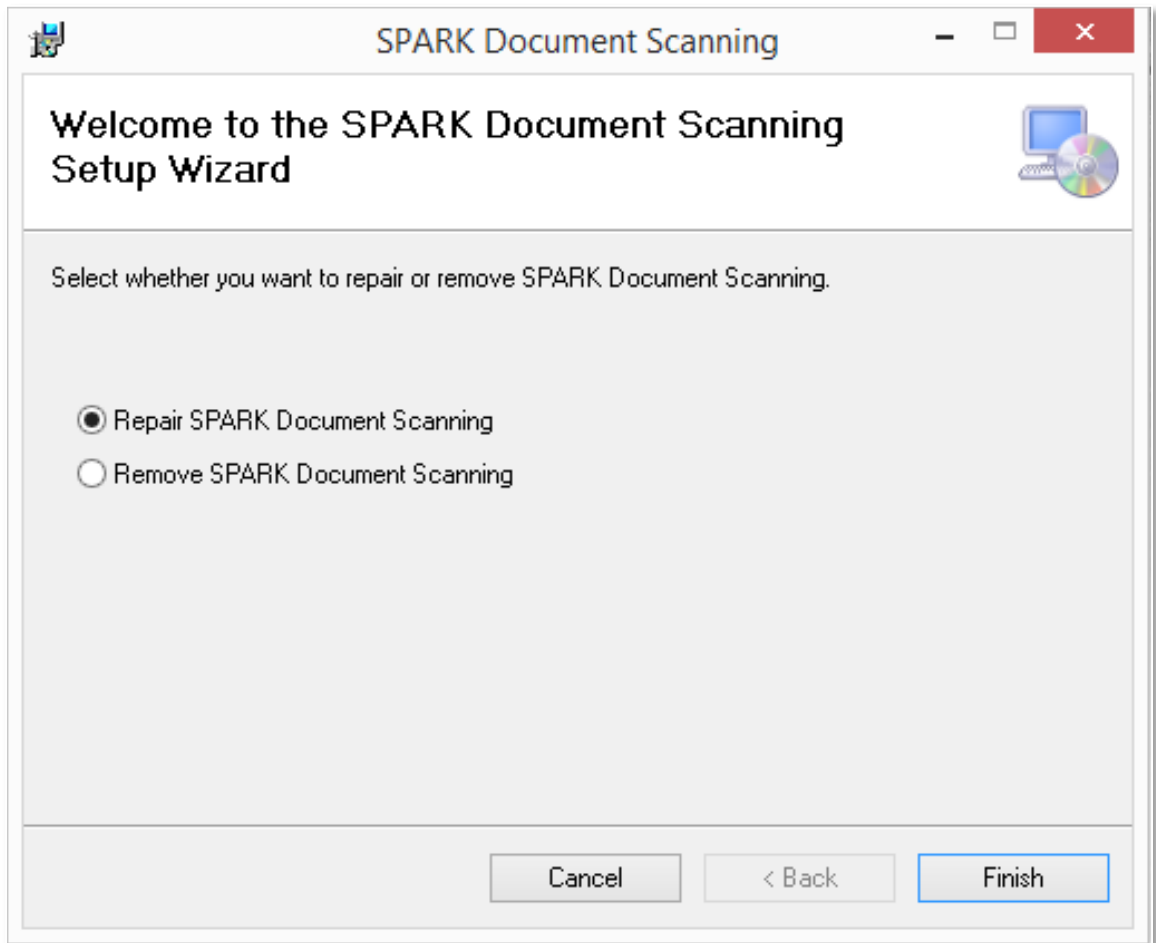
5. The installation will register SPARK Document Scanning services on your windows, and you need to make sure it is running by opening your windows services and check the service status, see the following screenshot.



6. Note that you need to have .NET Framework 4.5 installed on your windows in order to install SPARK Document Scanning Application. If the installer finds that you do not have it installed then it will prompt you to install it from within the installer package or from Microsoft download location.

**Uninstall steps:**

1. Run the installation file, you need to have full privileges on your windows OS in order to fully uninstall this application.
2. The installer will open the following wizard screen.



3. Select "Remove SPARK Document Scanning" option, then click "Next" button to complete the uninstall process.

## **9 Troubleshooting Notes**

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In order to have a smooth performance when working with SPARK Document Scanning and reduce issues to minimum, please read the following facts:

- 1- Do not open multiple scanning pages/tabs from the web when working with SPARK Document Scanning.
- 2- Make sure that SPARK Document Scanning windows services is running, by opening the local services console, and searching for SPARK Document Scanning service, the service must be set to an automatic run and its state must be "Running".
- 3- Select the proper scanner's driver type in the scanner source drop down list in the scanning dialog.
- 4- Use WIA and TWAIN drivers in order to connect to your scanner, make sure to install these drivers on your local machine.
- 5- Always do a hard/full browser cache clearing when installing new patches and/or new releases of SPARK Document scanning.
- 6- If the "Scanning In Progress" dialog hangs for a long time without showing the scanning progress bar, then close the dialog/tab, open tasks manager, locate SPARK Document Scanning process and terminate it, then try scanning again.
- 7- Always make sure that your scanner is up and running before using SPARK Document Scanning in order to avoid hanging dialog and error messages. You can check your scanner by running its manufacture original software.
- 8- Use recommended paper types in your scanner feeders in order to avoid paper jamming and scanning errors.
- 9- Use recommended and relatively low scan resolutions values in order to reduce documents sizes when saving to your SharePoint and maintain the storage free size of your environment.
- 10- Use proper page sizes that match physical documents paper sizes, to grant having perfect scanned images of these documents.
- 11- Select the "ShowUI" option if you want to use scanner extended features that are provided by the scanner manufacture and unavailable by SPARK Document Scanning software.
- 12- Use up-to-date supported browsers and always update them.
- 13- Make sure your windows do not include any virus, malware or Trojans, as this may highly affect your scanning process and leads to produce unknown errors.

## **10 Supported Lists and Libraries**

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SPARK Document Scanning supports the following lists and libraries:

- Custom List
- Document Library
- Links
- Announcements
- Contacts
- Events
- Tasks
- Picture Library
- Issue Tracking
- Decision
- Form Library
- Site Pages
- Custom List in Datasheet View
- Asset Library
- Data Connection Library
- Published Feed
- Reports Library
- User Information
- Gantt Tasks
- Tasks With Time line And Hierarchy
- Maintenance Logs
- Meetings
- Agenda
- Meeting User
- Meeting Objective
- Things To Bring, Posts
- Comments
- Categories
- Facility
- Whereabouts
- Call Track
- Circulation
- Timecard
- Holidays
- My Site Document Library
- Admin Tasks
- Health Rules
- Health Reports