

Project Title:	Email Attach Filing	Lead:	MTDN
Date:	27/05/2020	PO Number:	NA
Sourcing:	Internal \ Freelancer	Dept:	Mixed
Github Link:	NA	Est Duration:	2 Weeks



Overview:

In the past, various departments received documents, which were scanned onto a filing system via physical scanners that created PDFs.

Now the majority of these forms are completed online, and emailed to us as existing PDF or image attachments.

Currently users must save these attachments in a staging folder, and a service picks them up and saves them to the desired filing location.

This is clunky, and is especially difficult with home working.

Solution:

A SMTP service sits on a file server. Receives emails with attachments from internal email system, with the attachment.

It uses the subject field of the email as the file name of the attachment.

It uses the destination email address as indication of the destination folder.

Server Details:

Windows 2012\2016

The incoming emails will need to have an alternative domain to email to for separation of MX records, this will be: "sysfile.groupbureau.co.uk"

For security purposes the incoming SMTP port will be locked down to the internal exchange server ip(s)

Service Language & Scope:

.NET Core (v3)

GUI Service install, uninstall, start, stop, configuration file editing and saving

Allowed attachments:

The service will need to be able to deal with attachments with extensions as listed in a simple .ini file.

Destination Folder:

Simple ini file to match destination email address prefixes to folder destinations

Eg:

Prefix	Folder Location
Hr-dept1	D:\Fileserver\HR Department1
Hr-dept2	D:\Fileserver\HR Department2

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Note, folder locations may contain spaces.

Check Prefix exists in config file.

Check destination folder in config file is valid folder name.

Check destination folder exists.

Writing Attachments to File:

1. Check only single attachment exists
2. Check attachment extension is allowed
3. Check message subject string:
 - a. Remove common email subject auto prefixes "FW:", "RE:", "FYI:"
 - b. Check for string only contains allowed characters
 - i. Alphanumeric
 - ii. Space
 - iii. Dash and underscore (- _)
 - iv. Period (.)
 - c. Trim leading or trailing spaces
 - d. Check resulting trimmed name is less than 60 characters
4. Replace existing file name with string from subject field (trim leading or trailing spaces)
5. Check that file doesn't already exist
 - a. If file exists, append "_1" to file name
 - b. Check new filename doesn't exist. If it does, then append "_2", and loop until find a filename that doesn't yet exist.

Return Email:

Send reply email to the original sender, indicating success or failure:

Success: "We have filed "filename" to "Destination Folder" for you.

Failure: "We failed to file as requested: "Filename" to "Destination Folder"

Logging:

Can be either Windows logging, (need to create specific log), or SQL Server logging. Details to follow if SQL Server opted for.

Include intended attachment string log, and the sender email address for later identification.

No need to hold sent or received emails.

Potential Error & Scenario Handling:

Scenario	Action
Recipient Email prefix doesn't exist in config file	Log, Return fail email with additional text: " this recipient (recipient email address) is not configured"

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Destination folder is invalid format	Log, Return fail email with additional text: " this recipient (recipient email address) is not configured correctly"
Destination folder does not exist	Log, Return fail email with additional text: " this recipient (recipient email address) is configured with non-existent folder"
No attachment found	Log, Return fail email with additional text: " no attachment found"
More than one attachment found	Log, Return fail email with additional text: "more than one attachment, only send one attachment on each email"
Attachment extension not permitted	Log, Return fail email with additional text: " this attachment type is not allowed"
Resulting intended filename from Subject field contains invalid characters	Log, Return fail email with additional text: " the intended filename can only include the alphanumeric, space, dash, underscore and dot characters."
Other unhandled error	Log and attempt fail email reply with any returned error message

A Simple PDF File

This is a small demonstration .pdf file -

just for use in the Virtual Mechanics tutorials. More text. And more text. And more text. And more text.

And more text. And more text. And more text. And more text. And more text. And more text. Boring, zzzzz. And more text. And more text. And more text. And more text. And more text. And more text.

And more text. And more text. And more text. And more text. And more text. And more text. And more text. Even more. Continued on page 2 ...



