

## Blue Prism Outlook EWS Object Quick Setup Guide

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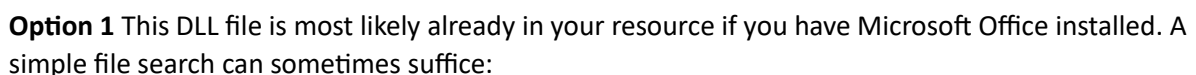
Object requires very minimum installation. It requires no technical knowledge of coding or WEB Services.

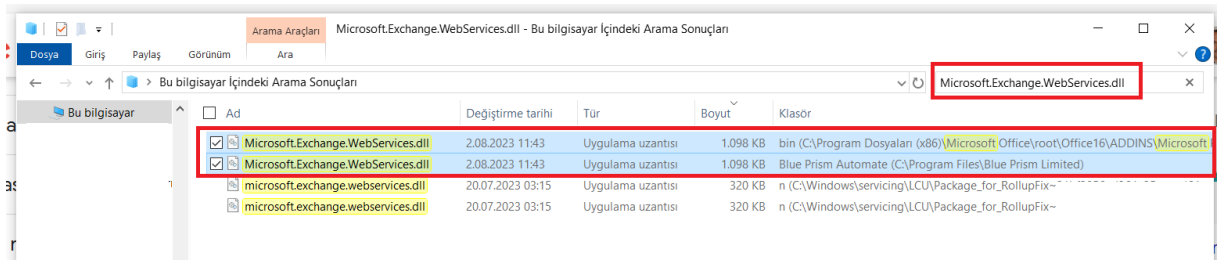
In order to get started using this object following steps must be completed only once. Depending on your company setup some of these steps may already be in place. In this documentation you will find the details of these steps with multiple solution alternatives.

- This object is powered by Microsoft.Exchange.WebServices.dll file and it needs to be copied into a directory where Blue Prism can find it.
- Find out what is your Exchange Web Service URL and implement in your object.
- Login to Outlook Web App in your company for every mailbox intended for use just once.
- Adjust login logic in Configure – Simple page of the object

Following steps can likely be completed on your own. You may need your IT / Infrastructure teams support for things like finding out what is the URL, copying dll file etc due to lack of rights or company security rules.

Object requires **Microsoft.Exchange.WebServices.dll** file to function. This dll file may not exist in your Blue Prism installation folder or System32 folder. You can simply figure out if that is the case by checking errors after importing the object to your Blue Prism Environment. If you dont see the following error it means it exists in a directory Blue Prism can access therefore you can skip to the next step:



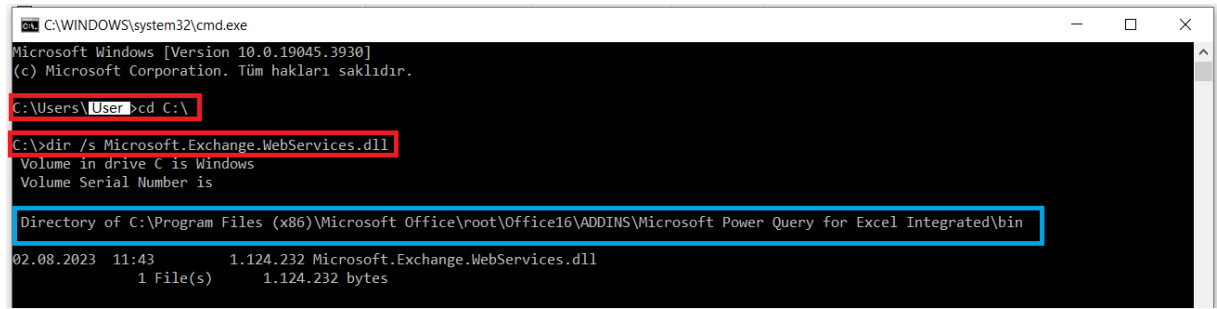


**Option 2** DLL file could be in the following locations:

C:\Program Files (x86)\Microsoft Office\root\Office16\ADDINS\Microsoft Power Query for Excel Integrated\bin

C:\Program Files\Microsoft\Exchange\Web Services<version>. The path can vary based on whether you download the 32 or 64 bit version of the Microsoft.Exchange.WebServices.dll

**Option 3** Searching the file from cmd can be faster or if you are using a thin client and you don't have access to C drive (this can be the case in some companies) you can do the following search from cmd:



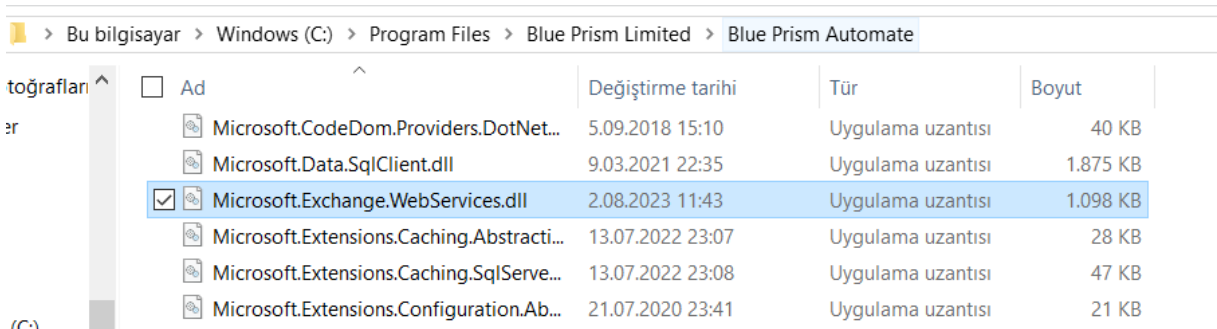
cd C:\

dir /s Microsoft.Exchange.WebServices.dll

**Option 4** If you can not locate the DLL file in your resource you can download it from the official source:

[www.microsoft.com/downloads](https://www.microsoft.com/downloads)

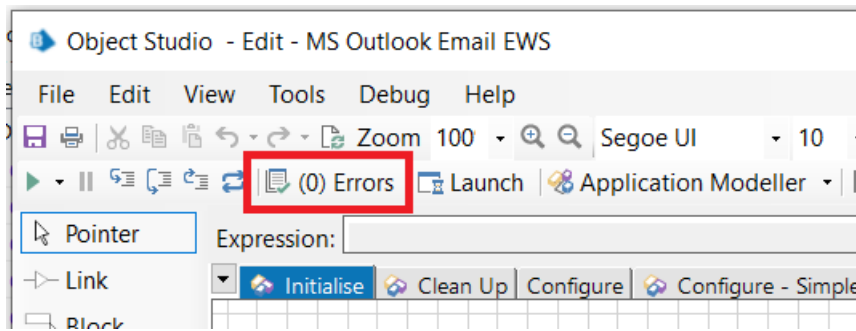
After you obtain the file you simply need to copy it to the Blue Prism installation folder in every resource



Your Blue Prism is most likely installed in this directory:

C:\Program Files\Blue Prism Limited\Blue Prism Automate

After this step you will get zero errors if you dont have any other missing assembly reference:



## 2.2 Finding your EWS URL

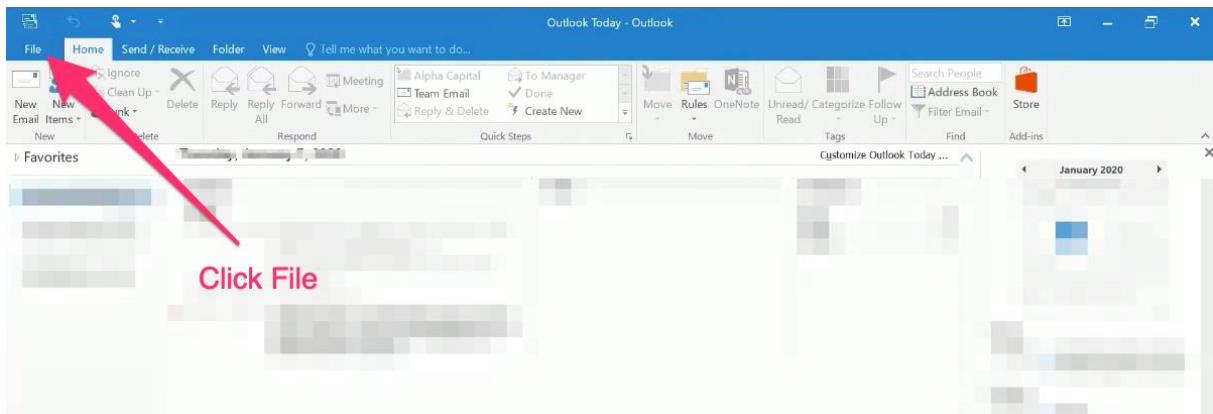
EWS URL is something very unlikely to change. You probably only need to figure this out once.

**Option 1** This URL may follow the same general naming convention therefore it is probably something like this:

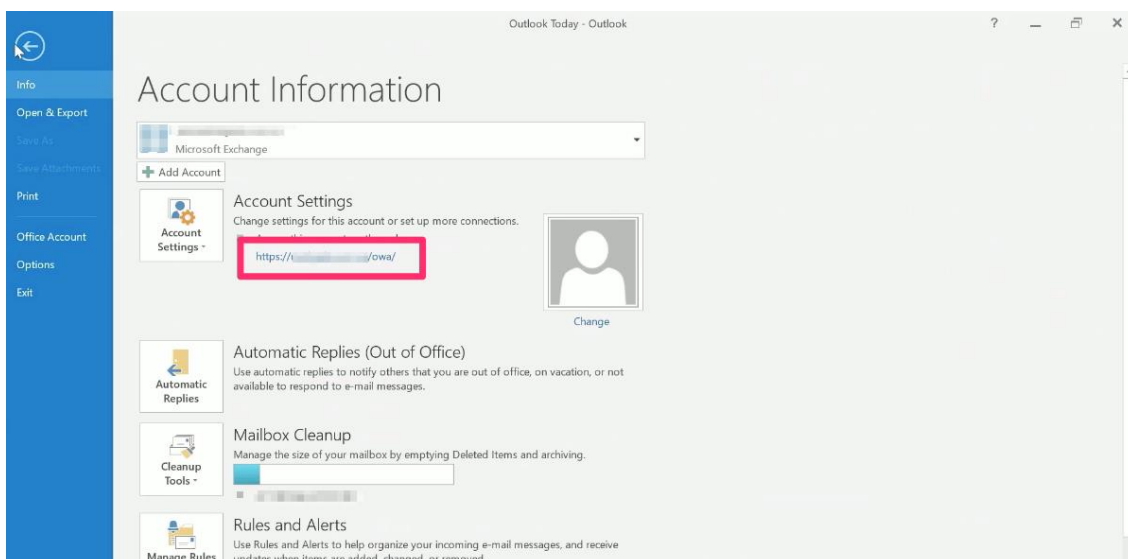
<https://email.mycompany.com/EWS/Exchange.asmx>

**Option 2** You can look up the Outlook Web App URL:

Open your Outlook then click File:



Then you can see your OWA URL located under account settings:



Here you will find out your company email domain. Try the following approach.

**Example**

**Your email domain:**  
<https://mail.affinity.co/owa/mail.com>

↓

**EWS URL**  
<https://mail.affinity.co/ews/exchange.asmx>

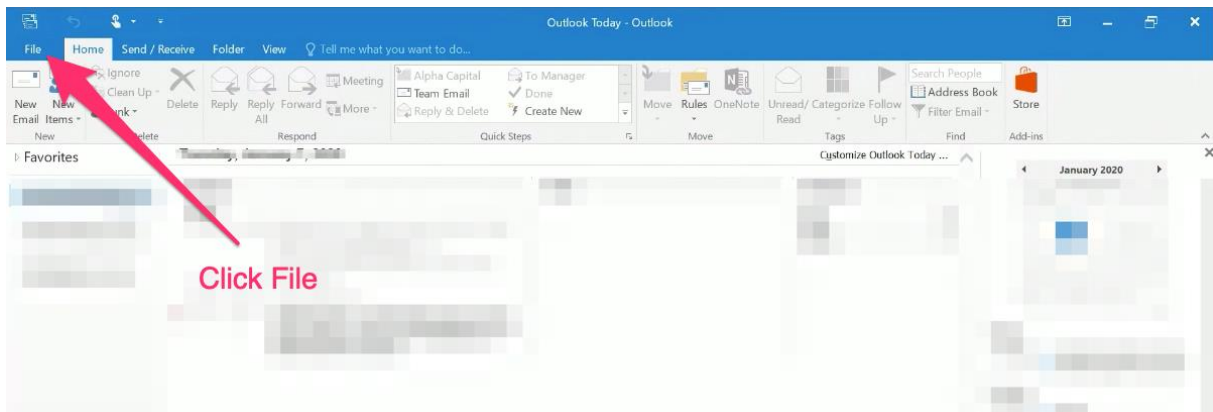
**Option 3** You can simply find this information by asking your IT / Infrastructure teams.

After figuring out the EWS URL it is recommended to keep it as an Environment Variable and call it inside your object (explained in 2.4.)

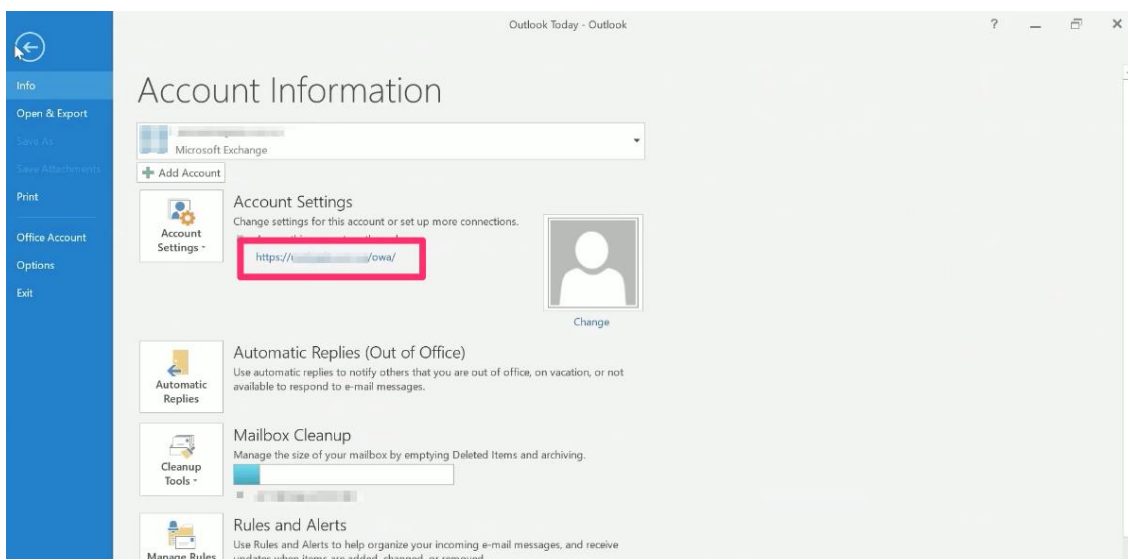
### 2.3 Activate EWS for a mail user using OWA

EWS needs to be activated for the intended mail users only once.

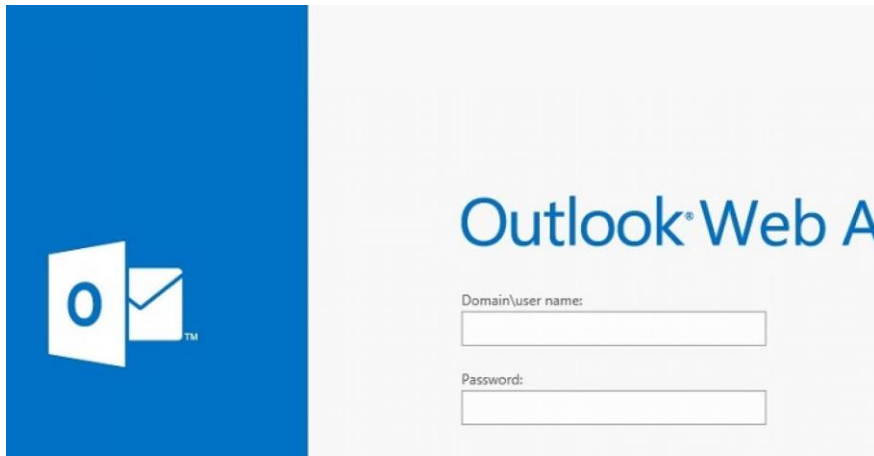
Open your Outlook then click File:



Then click your OWA URL located under account settings:



You need to login every Robot user only once.



You need to login using robot profiles Domain\User Name information and Windows Login password.

If you are unsure about your domain name you can simply ask your IT / Infrastructure team or use the following cmd command to find out:

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19045.3930]
(c) Microsoft Corporation. Tüm hakları saklıdır.

C:\Users\karak>whoami
retired\karak

C:\Users\karak>
```

**whoami**

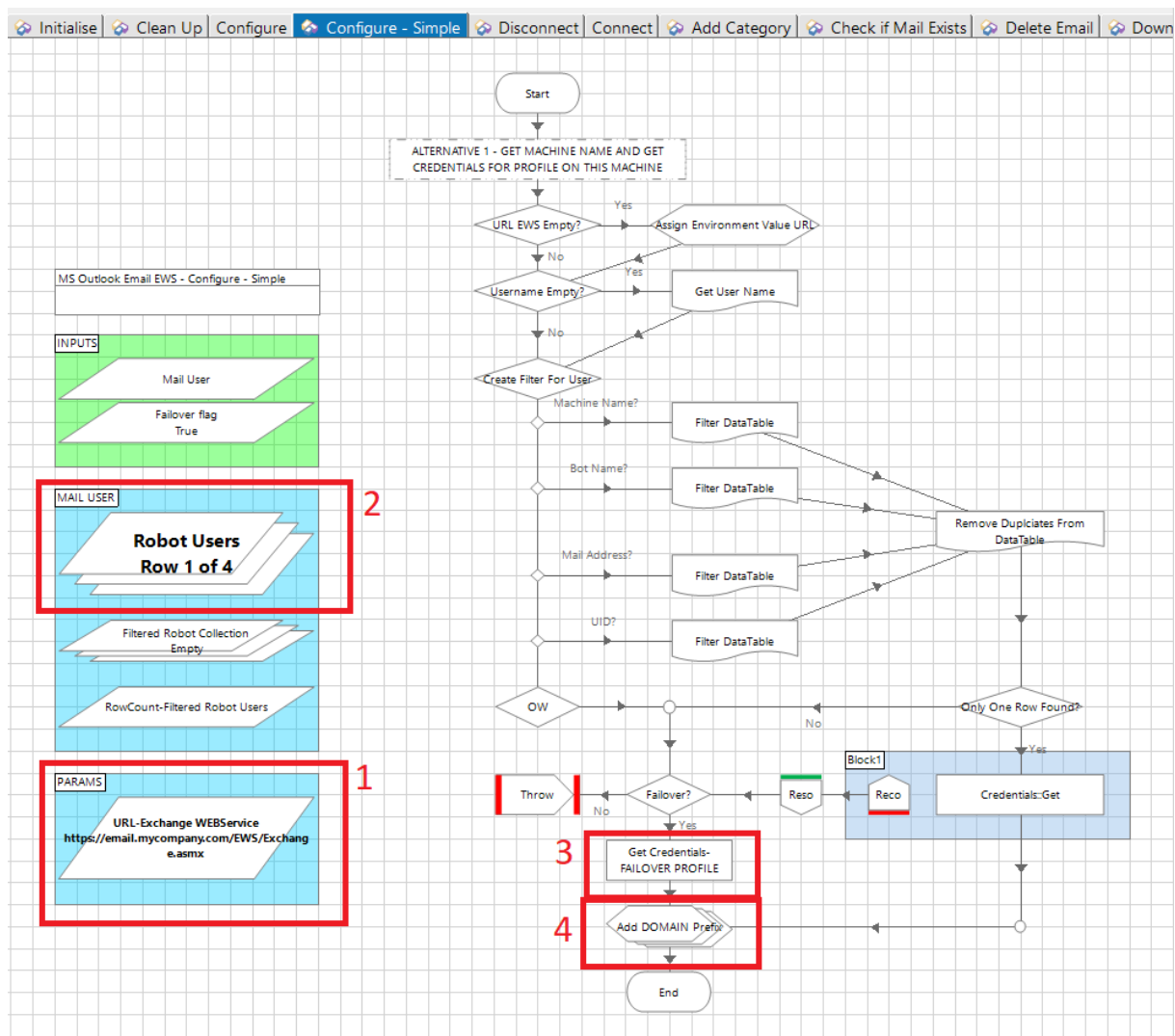
EWS Actions can be used after completing this step for a user.

## 2.4 Configure Simple Action

This action is not necessarily needed but it simplifies determining the robot user information and credentials once you implement your logic. You can delete this page and publish and use the Configure page too. Main objective is to set the EWS URL, mail user name and Windows login password values in the Initialize page before using EWS actions. Once these values are set they will keep their value as long as the process runs.

In the proposed design robots fetch the user name and search this username in the Robot Users Collection. After that robots find the credential name for this username and fetch the Windows login password. If it is not that crucial to send mails from active users profile, Use [Failover Account in Exception?] startup parameter to use a profile that you are certain functional. That way robot will do the intended action from failover profile you determined instead of throwing an exception.

If you would like to keep this page and use it, do the following changes:



1 – Add your EWS URL to the environment variables and call it here.

2 – Enter the robot profiles you would like to use in EWS mail actions to the Robot Users collection.

Collection Properties

Name: RobotUsers

Description:

Fields	Initial Values	Current Values
Machine (Text)	Username (Text)	UID (Text)
ROBOTPC001	Bot James	user1234
ROBOTPC002	Bot Kirk	user1235
ROBOTPC003	Bot Lars	user1236
ROBOTPC004	Bot Cliff	user1237

Rows:

Machine (Text)	Username (Text)	UID (Text)	Mailbox (Text)	EWS Username (Text)	Credentials Name (Text)
ROBOTPC001	Bot James	user1234	james@company.com	DOMAIN\user1234	Windows Login: James
ROBOTPC002	Bot Kirk	user1235	kirk@company.com	DOMAIN\user1235	Windows Login: Kirk
ROBOTPC003	Bot Lars	user1236	lars@company.com	DOMAIN\user1236	Windows Login: Lars
ROBOTPC004	Bot Cliff	user1237	cliff@company.com	DOMAIN\user1237	Windows Login: Cliff

☒ Reset to Initial Value whenever this page runs
 ☒ Hide from other pages in the process
 ☐ Single Row

Add  
 Remove

OK Cancel

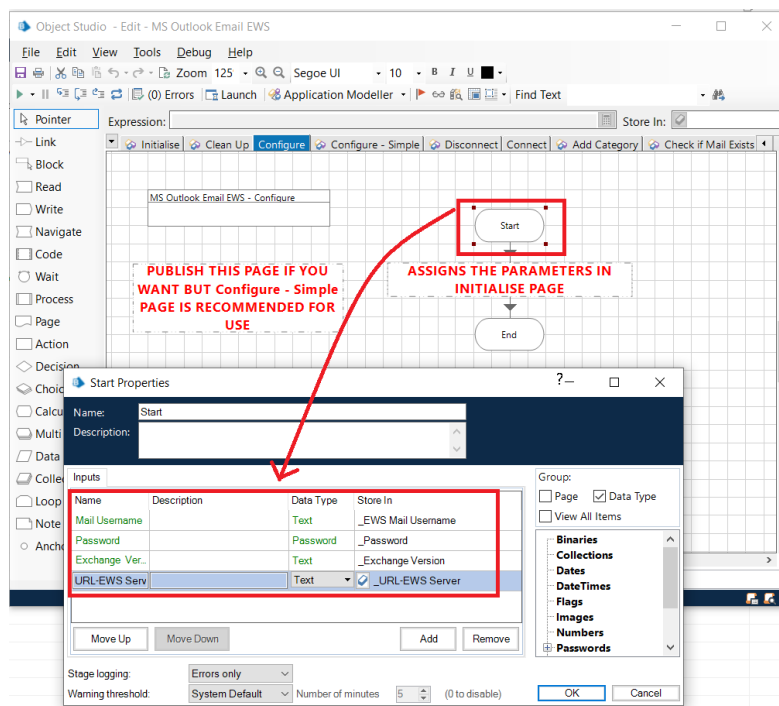
Robot will search the [Mail User] value (start parameter) in this collection. With the help of choice stage robot can filter the user for mail address, machine name, user name or User ID.

3 – Failover credential is a profile that you are sure it is functional. In case there is an exception in the get credentials step robot will fetch this users credentials and function normally. This logic is implemented to prevent a termination due to mail actions. If you want to specifically use a profile and would like to get the exception thrown in case of an exception, call this action with the intended user information and use False value for [Use Failover Account in Exception?] parameter.

4 – Enter your domain name into this multiple calculation obtained at 2.3.

Alternative to Configure Simple page:

Run the Configure action at the beginning of the process once. This action only assigns parameters and credentials in the initialize page. These values will be used throughout the process without need for any additional action.



### 3.0 Contact information

Feel free to contact the provider from below contacts:

[baris.karakas94@gmail.com](mailto:baris.karakas94@gmail.com)

<https://www.linkedin.com/in/bariskarakas/>



## 4.0 Object Definition

### 4.1 Add Category

Adds a category to an email. This mail can be in some shared folder. As long as the EntryID is correct robot will add the desired category

Parameter	Direction	Data Type	Description
Category	In	Text	
EntryID	In	Text	

### 4.2 Check if Mail Exists

Validates the EntryID. EntryID changes when a mail is moved to a different subfolder.

Parameter	Direction	Data Type	Description
EntryID	In	Text	
Mail Exists?	Out	Flag	

### 4.3 Configure- Simple

Parameter	Direction	Data Type	Description
Mail User	In	Text	
Use Failover Account in Exception?	In	Flag	

#### 4.4 Copy Email To Subfolder

Creates a copy of an Email to the desired folder. Original mail will not be affected.

Parameter	Direction	Data Type	Description
EntryID	In	Text	
Subfolder	In	Text	
Shared Mailbox	In	Text	

#### 4.5 Create Subfolder

Creates a new subfolder under desired subfolder

Parameter	Direction	Data Type	Description
Shared Mailbox	In	Text	
Parent Subfolder	In	Text	
Parent Subfolder ID	In	Text	
New Subfolder	In	Text	

#### 4.6 Delete Email

Deletes an email. Soft deleted mails are recoverable from Outlook client. Hard delete mails are not

Parameter	Direction	Data Type	Description
EntryID	In	Text	
Soft Delete? (Default)	In	Flag	
Move To Deleted Items?	In	Flag	
Hard Delete?	In	Flag	

#### 4.7 Disconnect

Disconnects the current EWS connection.

#### 4.8 Download Attachments By Pattern

Use EntryID to download mail attachments. Pattern is optional. For instance use .xls as pattern to download excel files (xlsx, .xlsm xls etc.) or use keyword Report to download files that contain Report word in their names. Make sure your run time machine has a decent memory. Not likely but this action may fail with System.OutOfMemory exception if VM memory is insufficient

Parameter	Direction	Data Type	Description
EntryID	In	Text	
Folder Path	In	Text	
File Pattern	In	Text	Default value is single dot which downloads everything

#### 4.9 Flag Item

Flag Item with a due datetime

Parameter	Direction	Data Type	Description
EntryID	In	Text	
Due DateTime	In	DateTime	

#### 4.10 Flag Item Completed

Flags Item Completed

Parameter	Direction	Data Type	Description
EntryID	In	Text	
Completed DateTime	In	DateTime	

#### 4.11 Flag Item Remove Flags

Removes Flags from an email Item

Parameter	Direction	Data Type	Description
EntryID	In	Text	

#### 4.12 Forward Mail

Forwards mail to the desired recipients.

Parameter	Direction	Data Type	Description
To	In	Text	
CC	In	Text	
BCC	In	Text	
Subject	In	Text	
Message	In	Text	
Attachments	In	Text	
EntryID	In	Text	

#### 4.13 Get Categories XML From Server

Parameter	Direction	Data Type	Description
XML - User Categories Config	Out	Text	

#### 4.14 Get Default Inbox Folder

A mail connection has a default Inbox folder. This action fetches the default inbox folder. In German language settings it could be Posteingang or in Turkish language settings it could be Gelen Kutusu etc. Mostly object calls this page within itself you probably wont call this page

Parameter	Direction	Data Type	Description
Shared Mailbox	In	Text	
Default Inbox	Out	Text	
Folder ID	Out	Text	

#### 4.15 Get Received Items

Gets received items to collection. Dont use asterix \* or percent % in Body contains, Subject contains etc. Just use the keywords as it is Increase max result count if needed Subfolder and Shared mb values are optional and functional if used. If you want to alter the headers of the result collection see the generateEmailsDataTable() method in Global Code

Parameter	Direction	Data Type	Description
Subfolder	In	Text	Can be Pipe Separated (   )
Subfolder ID	In	Text	
Max Result Count	In	Number	
Earliest Received DateTime	In	DateTime	
Shared Mailbox	In	Text	
Subject Contains	In	Text	
Body Contains	In	Text	
Include Read	In	Text	true or false
Sender Mail Address	In	Text	
HTML Body ?	In	Flag	
Received Items	Out	Collection	
RowCount-Received Items	Out	Number	

#### 4.16 Get Sent Items

Fetches the sent items into a collection. Increase the Max Result count if needed. Body contains, Sender mail address, TO display name and Subject contains are optional. Dont use asterix \* or percentage % when using

Parameter	Direction	Data Type	Description
Earliest Sent DateTime	In	DateTime	
Max Result Count	In	Number	
Sender Mail Address	In	Text	
Body Contains	In	Text	
Subject Contains	In	Text	
HTML Body?	In	Flag	
TO Display Name Contains	In	Text	
Sent Items	Out	Collection	
RowCount-Sent Items	Out	Number	



#### 4.17 Get Subfolders List

Gets a full list of subfolders in the desired connection. Shared mb is optional and functional if used. if your connection has more than 2000 subfolders see the `getFullFoldersListAtRoot()` method in global code and increase the 2000 number in new `FolderView(2000)` initialization.

Parameter	Direction	Data Type	Description
Shared Mailbox	In	Text	
Sub Folder Name (optional)	In	Text	
Subfolders	Out	Collection	
Subfolders Row Count	Out	Number	

#### 4.18 Get Text Body Of Email

If you have the EntryID and HTML body of an email dont lose time with HTML text manipulations regexes etc. This action fetches the plain text body of an email straight from the server.

Parameter	Direction	Data Type	Description
EntryID	In	Text	
Plain Text Body	Out	Text	

#### 4.19 Mark Item As Read

Marks mail item as read

Parameter	Direction	Data Type	Description
EntryID	In	Text	

#### 4.20 Mark Item As Unread

Marks mail item as unread

Parameter	Direction	Data Type	Description
EntryID	In	Text	

#### 4.21 Move Email To Subfolder

Shared mailbox is optional but functional if used. Beware that the EntryID will be changed after this operation

Parameter	Direction	Data Type	Description
EntryID	In	Text	
Subfolder	In	Text	
Shared Mailbox	In	Text	
New Entry ID	Out	Text	

#### 4.22 Remove Category

Removes a category from mail with EntryID identifier

Parameter	Direction	Data Type	Description
Category	In	Text	
EntryID	In	Text	

#### 4.23 Reply Email

Replies or Replies all to a mail

Parameter	Direction	Data Type	Description
EntryID	In	Text	
Reply To All?	In	Flag	
Message	In	Text	
Attachments	In	Text	

#### 4.24 Save Email As File

Make sure your run time machine has a decent memory. Not likely but this action may fail with System.OutOfMemory exception if VM memory is insufficient. In that case use Outlook VBO actions to download a mail file

Parameter	Direction	Data Type	Description
EntryID	In	Text	
Folder Path	In	Text	
File Name	In	Text	

#### 4.25 Send Email Using Template

File must be an EML file. You can replace keywords from subject and body. Create a one row collection where headers are your replace keywords and the values are the values to be written in email. File can be created as following: Create the template mail in Outlook Client then save the mail to Draft items folder then use get draft items action to fetch the EntryID then use Save email as file action to save that mail as EML file See the example in action page for replacing keywords

Parameter	Direction	Data Type	Description
FilePATH-EML-Template	In	Text	
To	In	Text	
CC	In	Text	
BCC	In	Text	
Replace Body Values One Row Collection	In	Collection	One row collection robot replaces the field name with the value at first row. See examples
Replace Subject Values One Row Collection	In	Collection	One row collection robot replaces the field name with the value at first row. See examples
Attachments	In	Text	
Shared Mailbox (Send As)	In	Text	
EML Encoding	In	Text	

#### 4.26 Send Mail

If Shared mailbox is used, sender of the mail will be the entered shared mailbox. For this EWS mail user must have send mail rights in that shared mailbox. If not used robot will send a normal mail. Folder to save item is optional. If used the mail item will be saved automatically to this folder

Parameter	Direction	Data Type	Description
To	In	Text	
CC	In	Text	OPTIONAL
BCC	In	Text	OPTIONAL
Subject	In	Text	
Message	In	Text	
Attachments	In	Text	OPTIONAL
Shared Mailbox (Send As)	In	Text	OPTIONAL
Folder To Save Sent Item	In	Text	OPTIONAL