



BmcWorklogs - Automation Anywhere

Readme

Version 1.0

October 21, 2019

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1. Introduction

This document contains all essential information for the user to make full use of the Bot or Digital worker. This manual includes a description of the functions and capabilities and step-by-step procedures for setup & configuration of the Bot.

Overview

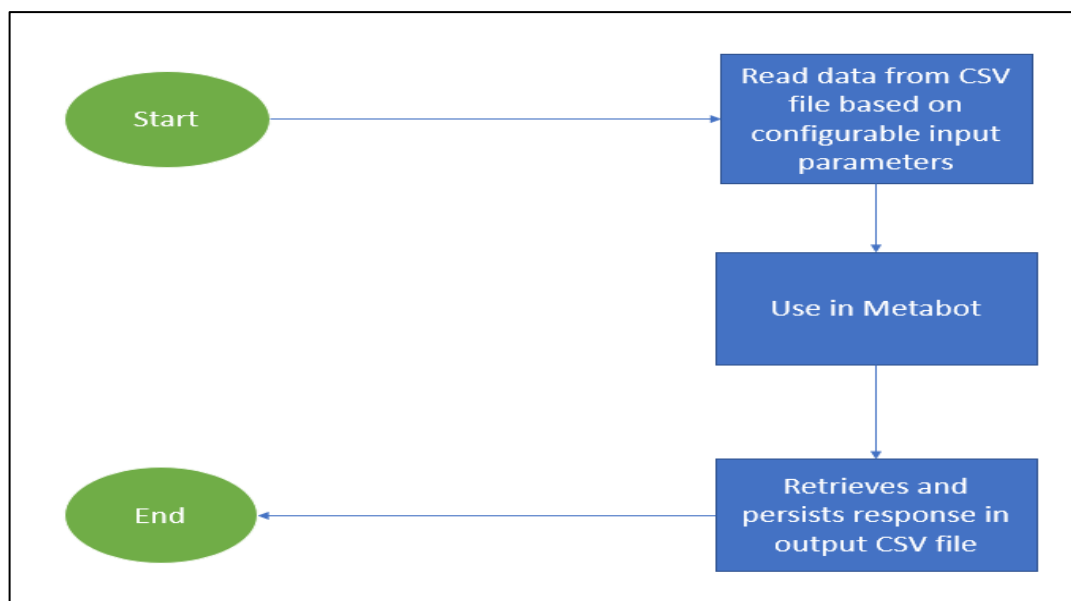
This Bot reads Information from a [CSV](#) Template based on Filter Conditions & other configurable parameters (as explained below) for Read Incident Worklogs use case, it will read the information from user input and store output in CSV File after processing input csv file and user input respectively.

Detailed steps are as follows:

- 1) Reads data from a [CSV](#) file
e.g. IncidentWorklogFilterInputFile.csv, IncidnetWorklogQueryInputFile.csv.
- 2) Exports data to the [CSV](#) Template based on Filter conditions set by a user.
Filter conditions are as below (Click individual to read details)

- [Filter based on Column Value](#)

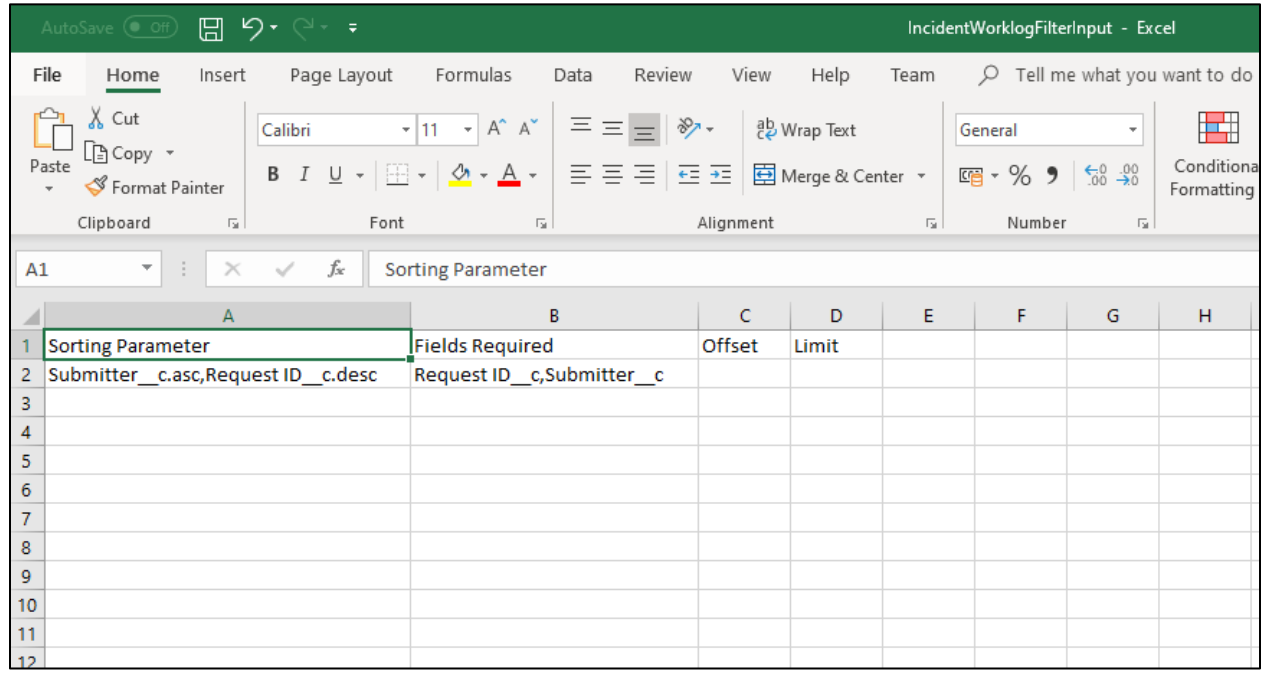
- **Visual flow**



Read Incident Worklogs:

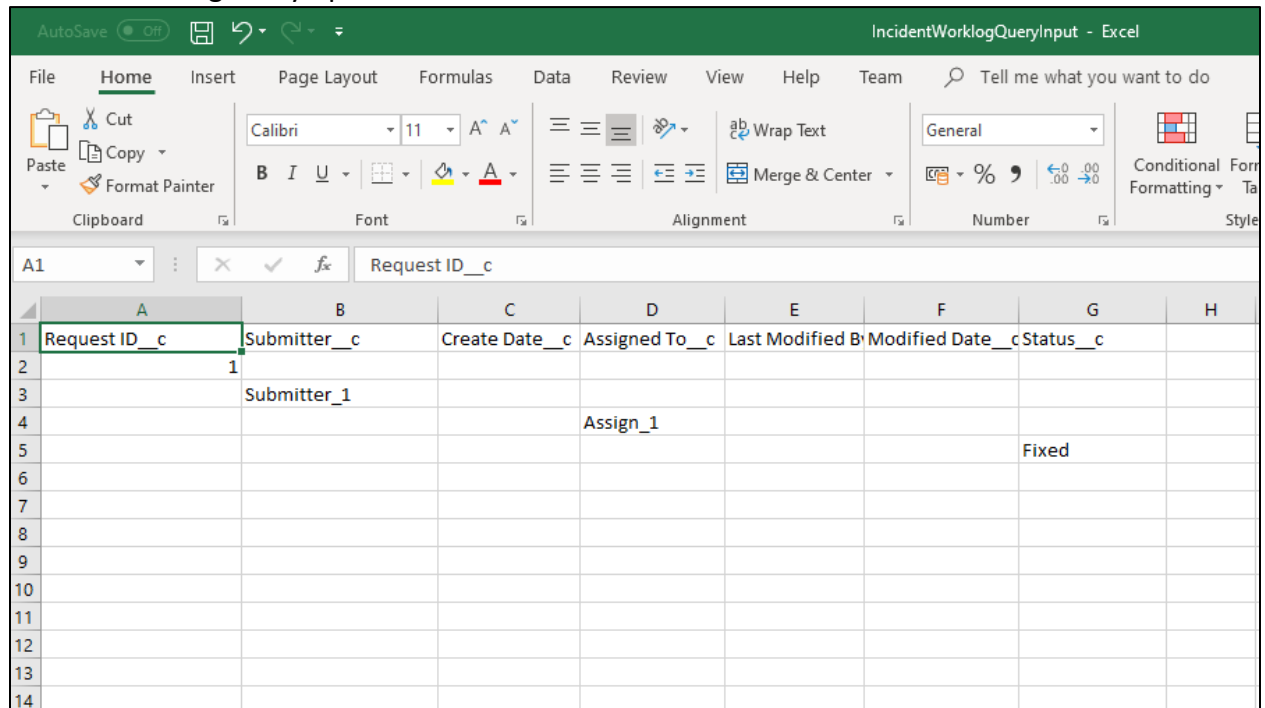
Input: Reads parameters from input csv file:

IncidentWorkLogFilterInput.csv



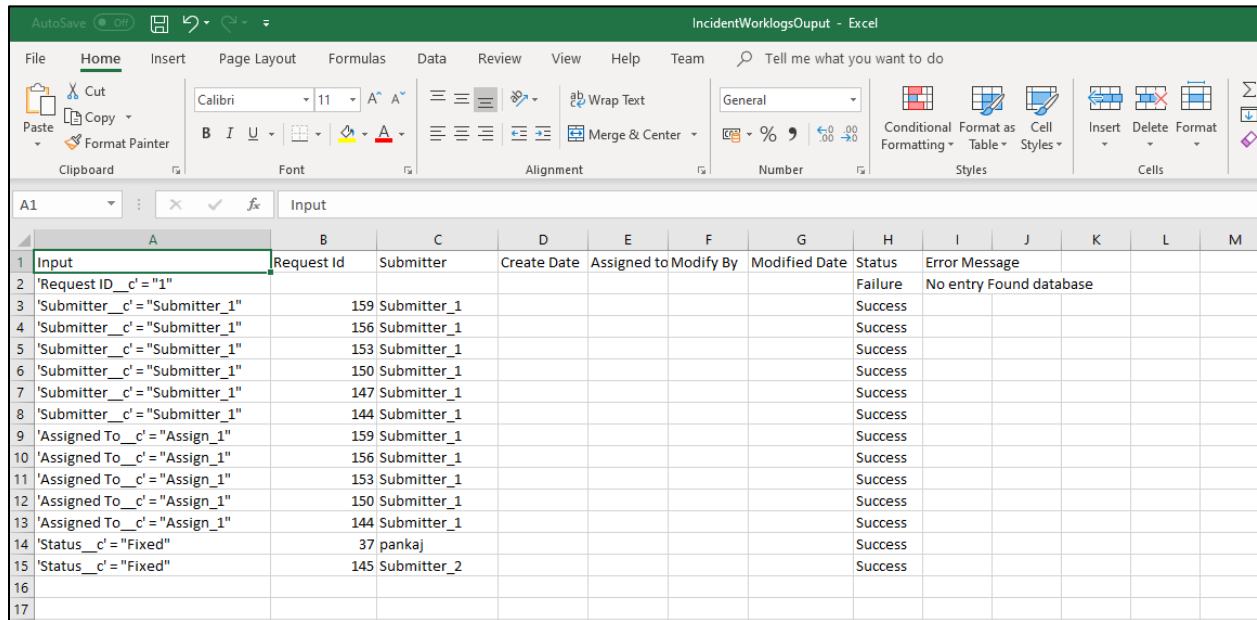
	A	B	C	D	E	F	G	H
1	Sorting Parameter	Fields Required	Offset	Limit				
2	Submitter_c.asc,Request ID_c.desc	Request ID_c,Submitter_c						
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

IncidentWorklogQueryInput.csv



	A	B	C	D	E	F	G	H
1	Request ID_c	Submitter_c	Create Date_c	Assigned To_c	Last Modified B	Modified Date_c	Status_c	
2	1	Submitter_1						
3			Assign_1					
4							Fixed	
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								

Output: Store output in csv file.



Input	Request Id	Submitter	Create Date	Assigned to	Modify By	Modified Date	Status	Error Message
'Request ID _c' = "1"							Failure	No entry Found database
'Submitter _c' = "Submitter_1"	159	Submitter_1					Success	
'Submitter _c' = "Submitter_1"	156	Submitter_1					Success	
'Submitter _c' = "Submitter_1"	153	Submitter_1					Success	
'Submitter _c' = "Submitter_1"	150	Submitter_1					Success	
'Submitter _c' = "Submitter_1"	147	Submitter_1					Success	
'Submitter _c' = "Submitter_1"	144	Submitter_1					Success	
'Assigned To _c' = "Assign_1"	159	Submitter_1					Success	
'Assigned To _c' = "Assign_1"	156	Submitter_1					Success	
'Assigned To _c' = "Assign_1"	153	Submitter_1					Success	
'Assigned To _c' = "Assign_1"	150	Submitter_1					Success	
'Assigned To _c' = "Assign_1"	144	Submitter_1					Success	
'Status _c' = "Fixed"	37	pankaj					Success	
'Status _c' = "Fixed"	145	Submitter_2					Success	

Common Use cases



A common use case, as shown above, is Read Incident Worklogs in an incident.

The fields in the [CSV](#) can be changed to whatever data that needs to be added in list.

2. Requirements & Prerequisites

System Requirements



For the [PC](#) or server where the bot needs to run:

- ✓ [RAM](#): 8GB or higher
- ✓ **PROCESSOR**: Intel Core i5 or higher and equivalent for any other [OS](#)
- ✓ **Hard Disk**: Up to 2GB of overall free space in the [AA](#) Client installation drive.

Reference below for [Enterprise Client & Control Room system requirements](#).

Prerequisites



- **Software's needed -**
 - ✓ [AA](#) Enterprise Client 11.3.3
 - ✓ [AA](#) Enterprise Control Room 11.3.3
- **Accounts/License needed –**
 - ✓ BMC Account. BMC account can be opened at [here](#)
 - ✓ [AA](#) Enterprise License

Security Measures



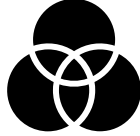
There are some security best practice recommendations that you may follow with your bot.

- It is not recommended to provide admin access to the Windows User Account executing the Bots, to avoid unintended data changes with the [CSV](#) Template.
- It is recommended to rotate server password twice or more in a quarter using Server setting in Remedy Mid Tier - Configuration Tool which ensure data safety.
- Password stored in credential vault should not be reused in other systems.

- Username used for BMC and stored in credentials vault should be reused in other systems only if corporate security policies allow it.
- BMC URL should use secure connection('https'). Configure your URL [click here](#)

3. Getting Started

Skill Matrix



The functionality of the Bot has been divided into set of skills.

Below is an overview of how the task bots and metabots map to these skills:

Skill	Task Files	MetaBot Files
Read Incident Worklogs	ReadIncidentWorklogs.atmx	IncidentWorklogs.mbot

Installation Hierarchy



Once the bot is downloaded and installed, the installer creates the files in the folder structure as shown below.

Folder Structure on your Machine

Folder Structure	Description
<p><AA Application Path></p> <p>1. My Tasks</p> <p>1.1. Bot Store</p> <p>1.1.1. BMCWorklogs - Automation Anywhere</p> <ul style="list-style-type: none"> ➤ Error Folder <ul style="list-style-type: none"> • Logs <ul style="list-style-type: none"> ○ Error logs Month-Day-Year.txt • Snapshots <ul style="list-style-type: none"> ○ Error Snap Month-Day-Year Hour Min Sec.png ➤ Input Folder <ul style="list-style-type: none"> • IncidentWorklogFilterInput.csv • IncidentWorklogQueryInput.csv ➤ Output Folder <ul style="list-style-type: none"> • IncidentWorklogsOutput.csv 	<p><AA Application Path> is the location where AA files are stored on your machine</p> <p>1. My Tasks</p> <p>My Task Folder is the default directory where Bot Files are saved.</p> <p>1.1 Bot Store</p> <p>Bot Store Folder contains the Bot Name Folder which the installer creates while installation of the Bot.</p> <p>1.1.1 BMCWorklogs-Automation Anywhere This folder gets created by the installer and contains files and folders that are needed for the bot execution.</p> <p>➤ Error folder is where logs and snapshots of screens will be placed if something goes wrong with the bot during execution</p> <p>➤ Input Folder is where the input files are saved that are needed by the taskbot for execution of the use case</p> <ul style="list-style-type: none"> • IncidentWorklogFilterInput.csv provides parameters that can be used as filter conditions for the worklogs of the incident, provided and given as an input to the bot. There can only be one row which defines all the filter conditions based on Column header. • IncidentWorklogQueryInput.csv provides parameters that can be used as query parameters or parameter with which worklogs need to be retrieved from the incident and given as an input to the bot. The value can be placed in one of the headers as multiple query parameters are not supported for single retrieve request. <p>➤ Output Folder is where the output files that the bot creates after execution of the use case is saved</p>

<p>➤ My Tasks</p> <ul style="list-style-type: none"> • ReadIncidentWorklogs.atmx <p>2. My MetaBots</p> <p>➤ IncidentWorklogs.mbot</p>	<ul style="list-style-type: none"> • IncidentWorklogsOutput.csv contains Read Incident Worklogs response along with status and error message, if any. <p>➤ My Tasks folder contains all the developed Platform Source Code</p> <p>2.My MetaBots folder contains the developed Metabots needed for the bot execution.</p>
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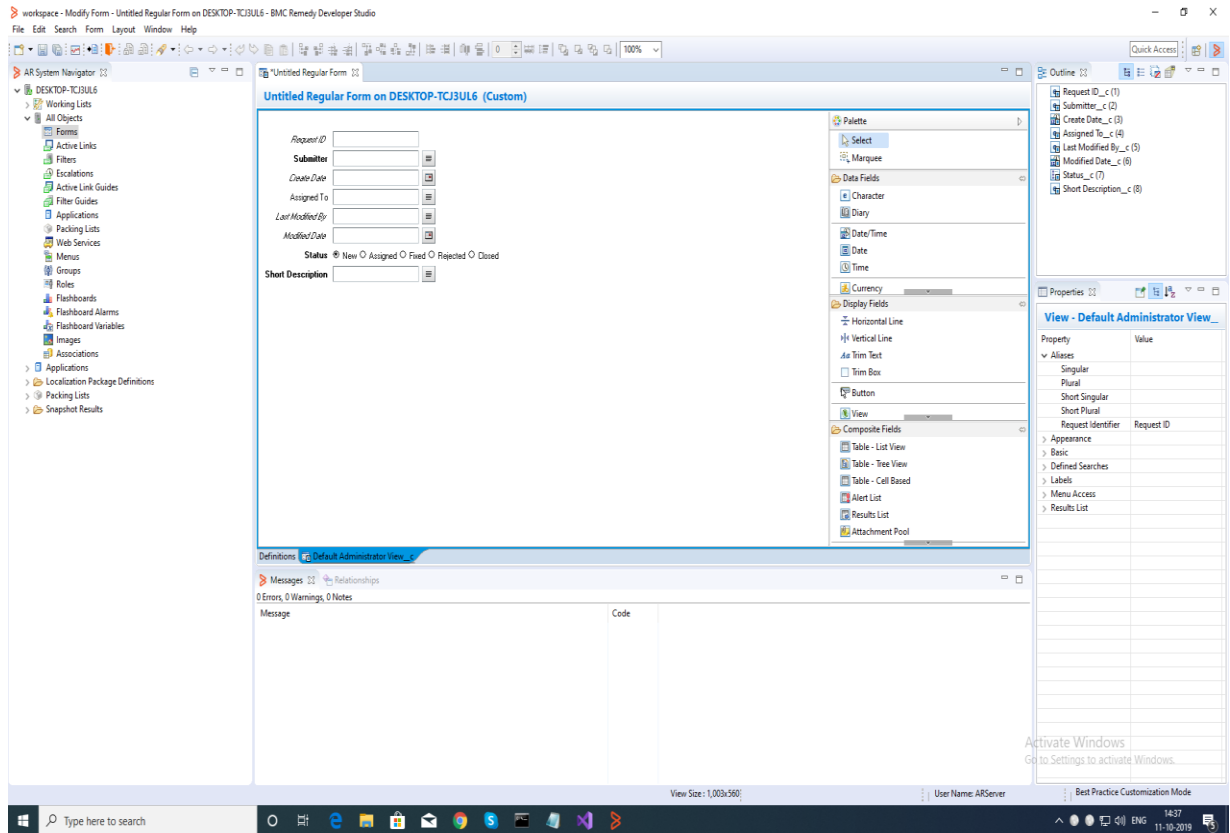
Quick Start

3.1.1 Setup



3.1.1.1 STEP 1 (Create form in the AR Server):

- If you already have a form created, then you can skip this step
- In AR System Navigator, expand **serverName > All Objects**.
- Right-click Forms, and select **New Regular Form**
- An Untitled Regular Form appears with the Core fields as displayed in the [Create Form window and core fields](#) figure.
- Right click on the Untitled Regular form and select save. Save the form with an appropriate form name.



- For more information [click here](#)

3.1.1.2 Step 2 (Generating URLs and password):

- For **https** services ,AR Server URL is <https://<server name>:<port>>
- Port refers to the port number on which Jetty server is running.
- You can configure the port in AR server by changing jetty-config file.
- For more information [click here](#).
- **TokenURL:** AR Server URL/api/jwt/login
- **IncidentURL:** AR Server URL/api/arsys/v1/entry/{form-name}
- Password should be changed at regular intervals, according to corporate policies.
For server password can be changed as:
Log in to Remedy MidTier - Configuration Tool
Go and edit the Server settings and update the password
Update the password in credential vault.

Note: Here the form-name is the name of the form that we created in step 1.

3.1.2 Configuration



STEP 1 (Configuring Credential in Control Room's Credential Vault)

Passwords and other sensitive information such as Server URL, Username and password used in automation tasks, should be stored as credentials centrally in the Credential Vault.

These sensitive data items are secured (stored in CR) and can't be accessed locally which is used by the bots when it executes in the machine.

Below are the step-by-step instructions for what needs to be done to set up the Server Url, Username and Password for BMC incident in the Credential Vault.

- 'Locker Consumer Role' needs to be assigned to the [AA](#) user (bot runner) which ensures the user have full access to the locker.
- Locker needs to created with name as "BMCIincident_Locker"
- Credential needs to created with name as "BMCIincident_Credential", where the URL and Token needs to be saved.

Locker Name	Credentials Name	Attribute Name	Value
BMCIincident_Locker	BMCIincident_Credential	TokenURL	Token URL value should be as mentioned in step 2 of SetUp .
BMCIincident_Locker	BMCIincident_Credential	IncidentURL	Incident URL should be as mentioned in step 2 of SetUp .
BMCIincident_Locker	BMCIincident_Credential	Username	Username of BMC Remedy AR server
BMCIincident_Locker	BMCIincident_Credential	Password	Password of BMC Remedy AR Server

For more information on how to set up credentials in the Control Room, please visit this [link](#) on the Automation Anywhere Product Documentation portal.

STEP 2 (Configuring Parameters with an External File)

External file can be configured at -

AA Application Path > My Tasks > Bot Store > BmcWorklogs - Automation Anywhere > Input > IncidentWorklogFilterInput.csv

AA Application Path > My Tasks > Bot Store > BMCWorklogs - Automation Anywhere > Input > IncidentWorklogQueryInput.csv

This is where, the input values for variables are stored which is needed by the bot at the time of execution.

Headers in input csv file are fixed according to API call.

Header fields in the input files are:

IncidentWorklogFilterInput.csv: Sorting Parameter, Fields Required, Offset, Limit.

IncidentWorklogQueryInput.csv: Request ID__c, Submitter__c, Create Date__c, Assigned To__c, Last Modified By__c, Modified Date__c, Status__c.

Sensitive variables like Server URL, Username, Password are stored in credential vault.

Below is a table that summarizes what the variable name is, what it does, and an example of the input & output:

Input variables:

<u>INPUT VARIABLES: NEEDS TO BE CONFIGURED BY THE USERS FOR INPUT PARAMETER</u>				
Variable Name	Type	Mandatory (Yes/No)	Purpose	Example Input
vIncidentsWorklogsFilterInputFile	Text	Yes	File Name for the template from which Bot reads the value of filter input like sorting parameters or fields which user required from worklogs.	IncidentWorklogFilterInput.csv
vIncidentsWorklogsQueryInputFile	Text	Yes	File Name for the template from which Bot	IncidentWorklogQueryInput.csv

			reads the value of query parameters with which user required to fetch the worklogs.	
vReadIncidentsWorklogsOutputFile	Text	Yes	File Name for the response of Read Incident worklogs	IncidentWorklogsOuput.csv
vLogFolder	Text	Yes	Location where Logs folder is located	\$AAApplicationPath\$\Automation Anywhere\MyTasks\BotStore\BmcWorklogs-Automation Anywhere \Input Folder\Logs
vErrorFolder	Text	Yes	Location where Error folder is located	\$AAApplicationPath\$\Automation Anywhere\MyTasks\BotStore\BmcWorklogs-Automation Anywhere \Error Folder
vSnapshotFolder	Text	Yes	Location where Snapshot folder is located	\$AAApplicationPath\$\Automation Anywhere\MyTasks\BotStore\BmcWorklogs-Automation Anywhere \Error Folder\Snapshots
vInputFolder	Text	Yes	Location where Input folder is located.	\$AAApplicationPath\$\Automation Anywhere\MyTasks\BotStore\BmcWorklogs-Automation Anywhere \Input Folder
vOutputFolder	Text	Yes	Location where Output folder is located.	\$AAApplicationPath\$\Automation Anywhere\MyTasks\BotStore\BmcWorklogs-Automation Anywhere \Output Folder

vToken	Text	Yes	Token generated from Generate Token utility	axcvghll.....
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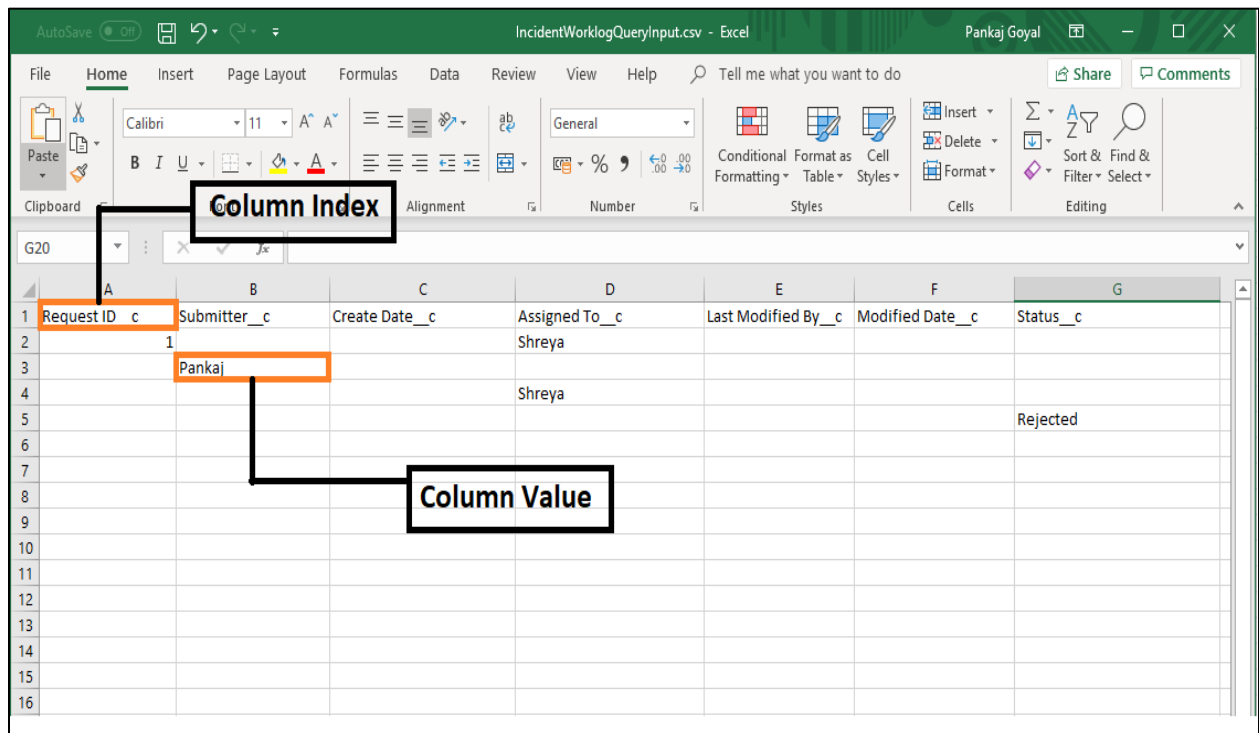
Guidance for configuring Filter conditions are described below:

a. Filter based on Column Value

vColumnIndex and **vColumnValue** variables are needed to configure this.

'**vColumnIndex**' is the column name which needs to be defined in the config file.

'**vColumnValue**' is the value which needs to be matched against the mentioned Column name.

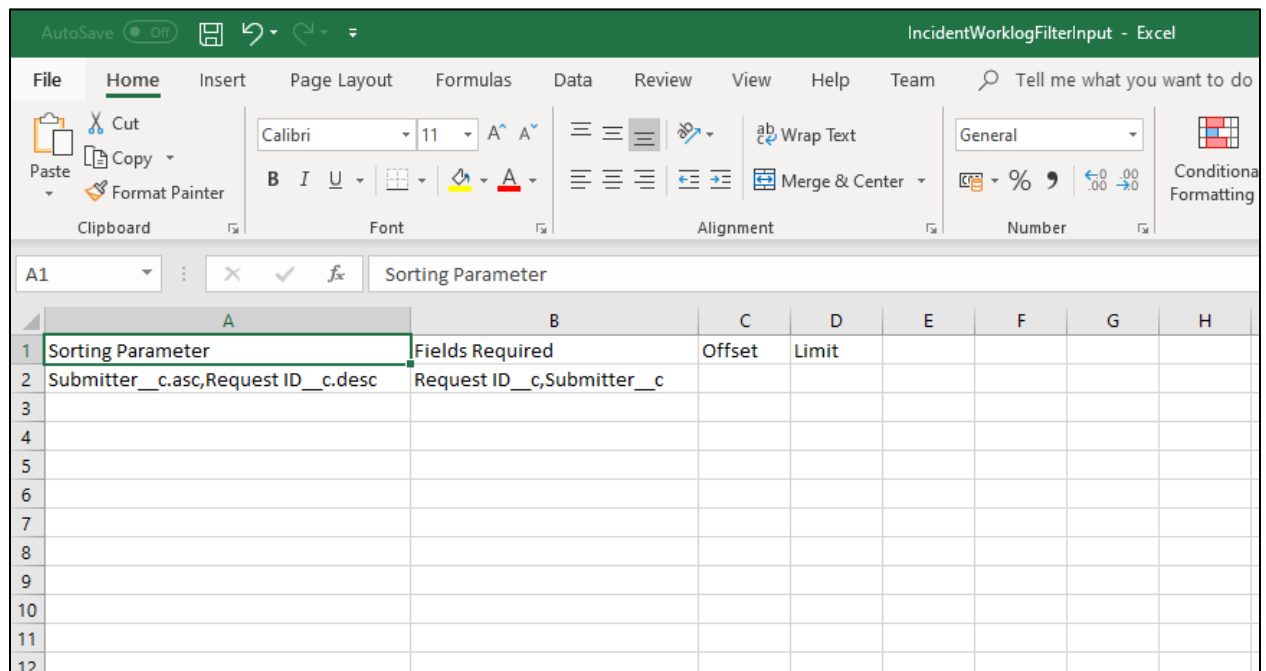


Input CSV Files-

IncidentWorkLogFilterInput.csv

- Optional Parameters-

File Parameter Name	Type	Description	Example Input
Sorting Parameter	Text	Sorting parameters with sorting order	Submitter__c.asc
Fields Required	Text	Fields which user wants to display	Request ID__c
Offset	Text	Starting index after which result are fetched	10
Limit	Text	Maximum No of results displayed	10



	A	B	C	D	E	F	G	H
1	Sorting Parameter	Fields Required	Offset	Limit				
2	Submitter__c.asc,Request ID__c.desc	Request ID__c,Submitter__c						
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

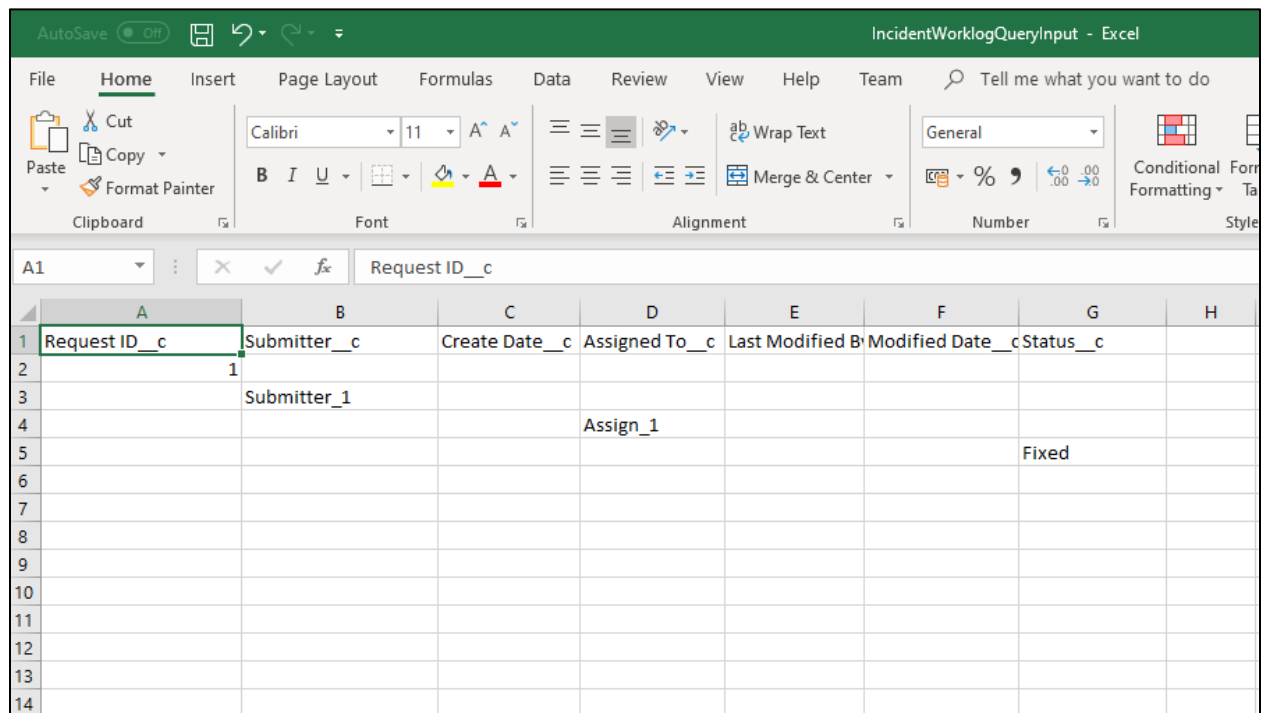
Note: There should be only one row in input csv file for all the filter parameters.

IncidentWorkLogQueryInput.csv

- Optional Parameters-

File Parameter Name	Type	Description	Example Input
Request ID__c	Text	Incident Id which details to be displayed	000000000000143

Submitter__c	Text	Name of the submitter of incident	Submitter_1
Create Date__c	Text	Incident create Data	2019-10-14T06:55:26.000+0000
Assigned To__c	Text	Incident assignee name	Assignee_1
Last Modified By__c	Text	AR Server which updates the incidents lastly	ARServer
Modified Date__c	Text	Date on which incident has been modified	2019-10-14T06:55:26.000+0000
Status__c	Text	Status of the incident	Fixed

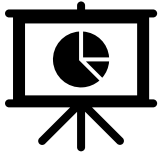


IncidentWorklogQueryInput - Excel

	A	B	C	D	E	F	G	H
1	Request ID__c	Submitter__c	Create Date__c	Assigned To__c	Last Modified By__c	Modified Date__c	Status__c	
2		1						
3		Submitter_1						
4				Assign_1				
5							Fixed	
6								
7								
8								
9								
10								
11								
12								
13								
14								

Note: There must be only one entry in every row of the input file.

4. Reports



There are no Bot Insight Reports generated for this Bot.

5. Logs






In case of Errors, Error Logs & Screenshots are generated within Error Folder (Highlighted below in yellow)

- My Tasks
 - Bot Store
 - Bot Name
 - Error Folder
 - Logs (Folder)
 - Error Logs Month-Day-Year.txt
 - Snapshots (Folder)
 - Error Snap Month-Day-Year HourMinSec.png

Error Logs will contain the below information -

- Task Name
- Error Line Number
- Error Description
- Generated Timestamp




Example:

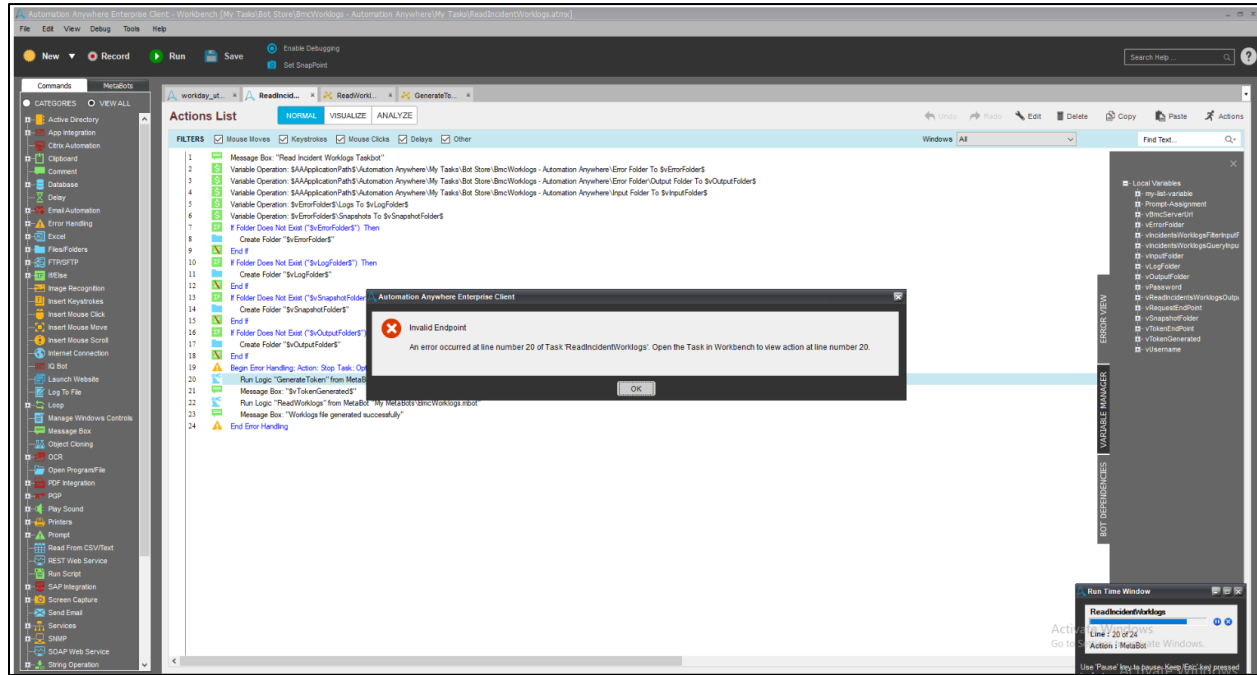
Name	Date modified	Type	Size
 Error Logs 09-10-2019.txt	10-10-2019 15:15	Text Document	3 KB
 Error Logs 10-10-2019.txt	10-10-2019 15:15	Text Document	3 KB
 Error Logs 11-10-2019 .txt	10-10-2019 15:15	Text Document	3 KB

```
(10-10-2019 17:27:08)
=====
Task : C:\Users\Administrator\Documents\Automation Anywhere Files\Automation Anywhere\My Tasks\Bot Store
\BmcWorklogs - Automation Anywhere\My Tasks\ReadIncidentWorklogs.atmx
Error Line Number: "20"
Error Description: Only 'http' and 'https' schemes are allowed.
Parameter name: value
=====
```

Example of Screenshot Generated Error File:

is PC > Documents > Automation Anywhere Files > Automation Anywhere > My Tasks > Bot Store > BMCWorklogs - Automation Anywhere > Error Folder > Snapshots

Name	Date	Type	Size	Tags
 Error Snap 10-10-20...	10-10-2019 13:09	PNG File	207 KB	
 Error Snap 10-10-20...	10-10-2019 14:51	PNG File	197 KB	
 Error Snap 10-10-20...	10-10-2019 14:48	PNG File	195 KB	



6. Troubleshooting & Support



Support



Free bots are currently not supported directly.



Questions on Bot Functionality or Feature can also be posted to our Community site [Apeople](#)



Automation Anywhere provides a [Product Documentation portal](#) which can be accessed for more information about [AA](#)'s products and guidance on building bots and Digital Workers.

The "Build" section of the portal includes these sections:

- Getting Started - information on building bots recommended practices (including use of the Credential Vault)
- Build Advanced Bots - details on MetaBots and the approach to integrating code into them
- Build Digital Workers - high level architecture
-

FAQs



Q: The 'Create Locker' button not visible in the Credential Vault Page. What do I do?

A: Please check if the role 'Locker Consumer' is assigned to the user and you are using an Enterprise Client version.

Appendix A: Record of Changes

No.	Version Number	Date of Change (DD/MM/YYYY)	Author	Notes
1	1.0	October 21, 2019	Pankaj Goyal Nikhil Gupta	Version 1 Release

Appendix B: Acronyms

No.	Acronym	Description
1	AA	Automation Anywhere
2	CSV	Comma Separated File
3	DW	Digital Worker
4	CR	Credential Vault
5	CRM	Customer Relationship Management
6	API	Application Programming Interface
7	PC	Personal Computer
8	RAM	Random Access Memory
9	OS	Operating System

Appendix C: References

No.	Topic	Reference Link
1	System Requirements - Client	Click here
2	System Requirements – Control Room	Click here
3	How to create credential & Locker?	Click here
4	Credential Overview	Click here
5	Apeople Community Site	Click here
6	Product Documentation portal	Click here