



BMCIncidentManager-Automation Anywhere

Readme

Version 1.0

October 21, 2019

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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

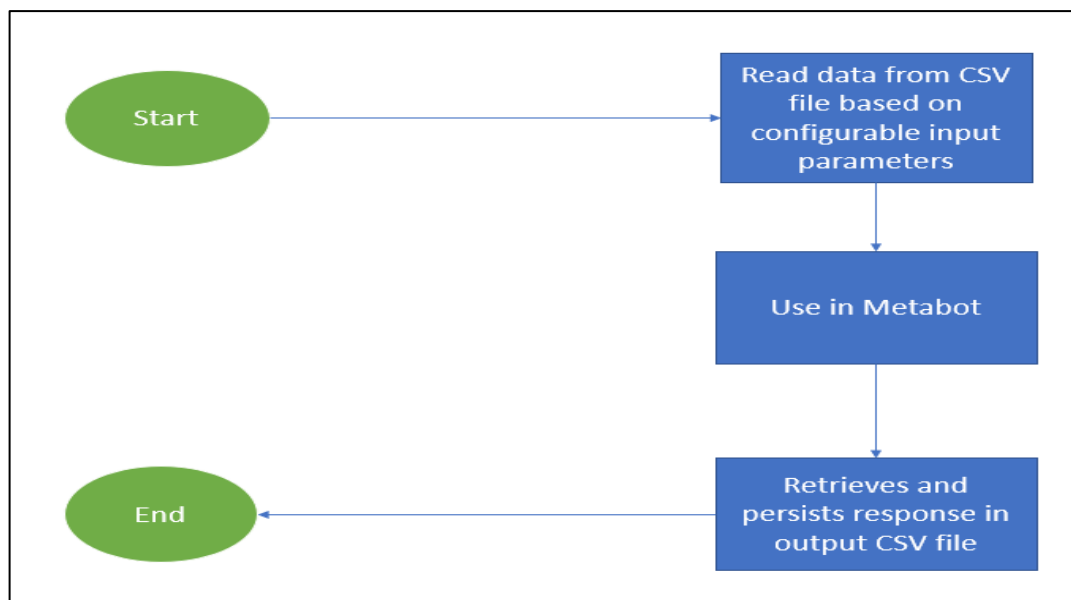
This Bot reads Information from a [CSV](#) Template based on Filter Conditions & other configurable parameters (as explained below) for Create Incidents, Read incidents and Update Incidents use case, it will read the information from user input and store output in CSV File after processing input csv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

Detailed steps are as follows:

- 1) Reads data from a [CSV](#) file, e.g. CreateIncidentInput.csv, GetIncidentInput.csv, UpdateIncidentInput.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**



Create Incident:

Input: Reads parameters from input csv file:

AutoSave Off    CreteIncidentInput - Excel

File Home Insert Page Layout Formulas Data Review View Help Team Tell me what you want to do

Clipboard: Paste, Cut, Copy, Format Painter

Font: Calibri, 11, Bold, Italic, Underline, Text Color, Background Color




Alignment: Wrap Text, Merge & Center

Number: General, Percentage, Currency, Date, Time, Text, Scientific, Fraction, Decimals

Formulas: fx, Submitter

	A	B	C	D	E	F	G	H	I	J	K	L
1	Submitter	Short Description	Assigned to									
2	Submitter_1	Task1	Assign_1									
3	Submitter_2	Task2	Assign2									
4	Submitter_3	Task2	Assign_3									
5												
6												
7												
8												
9												
10												
11												
12												
13												

Output: Saves the result in the output csv file

AutoSave Off    CreteIncidentOutput - Excel

File Home Insert Page Layout Formulas Data Review View Help Team Tell me what you want to do

Clipboard: Paste, Cut, Copy, Format Painter

Font: Calibri, 11, Bold, Italic, Underline, Text Color, Background Color

Alignment: Wrap Text, Merge & Center

Number: General, Percentage, Currency, Date, Time, Text, Scientific, Fraction, Decimals

Formulas: fx

Conditions Formatting

	A	B	C	D	E	F	G	H	I
1	Submitter	Short Description	Assigned to	IncidentID	Status				
2	Submitter_1	Task1	Assign_1	159	Success				
3	Submitter_2	Task2	Assign2	160	Success				
4	Submitter_3	Task2	Assign_3	161	Success				
5									
6									
7									
8									
9									
10									

Read Incident

Input: Reads parameters from input csv file:

AutoSave On GetIncidentInput - Excel

File Home Insert Page Layout Formulas Data Review View Help Team Tell me what you want to do

Clipboard Font Alignment Number

	A	B	C	D	E	F	G	H	I	J	K	L
1	Incident Id											
2	100											
3	144											
4	145											
5	146											
6	160											
7												
8												
9												

Output: Saves the result in the output csv file

AutoSave On GetIncidentOutput - Excel

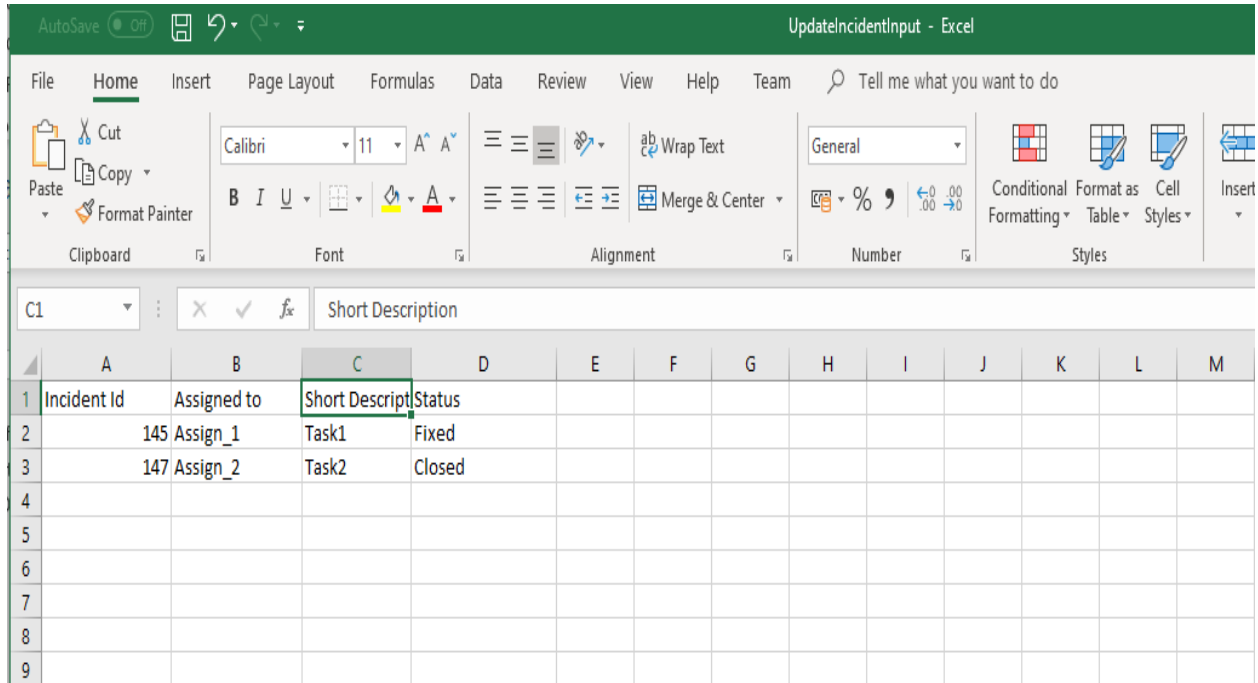
File Home Insert Page Layout Formulas Data Review View Help Team Tell me what you want to do

Clipboard Font Alignment Number Styles Cells

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Request Id	Submitter	Create Date	Assigned to	Modify By	Modified Date	Incident Status	Incident Description	Status	Error Message			
2	100								Failure	Entry does not exist in database			
3	144	Submitter	14-10-2019 12:31	Assign_1	ARServer	14-10-2019 12:31	New	Task1	Success				
4	145	Submitter	14-10-2019 12:31	Task1	ARServer	14-10-2019 13:12	Fixed	Assign_1	Success				
5	146	Submitter	14-10-2019 12:31	Assign_3	ARServer	14-10-2019 12:31	New	Task2	Success				
6	160	Submitter	14-10-2019 14:33	Assign2	ARServer	14-10-2019 14:33	New	Task2	Success				
7													
8													
9													
10													
11													
12													

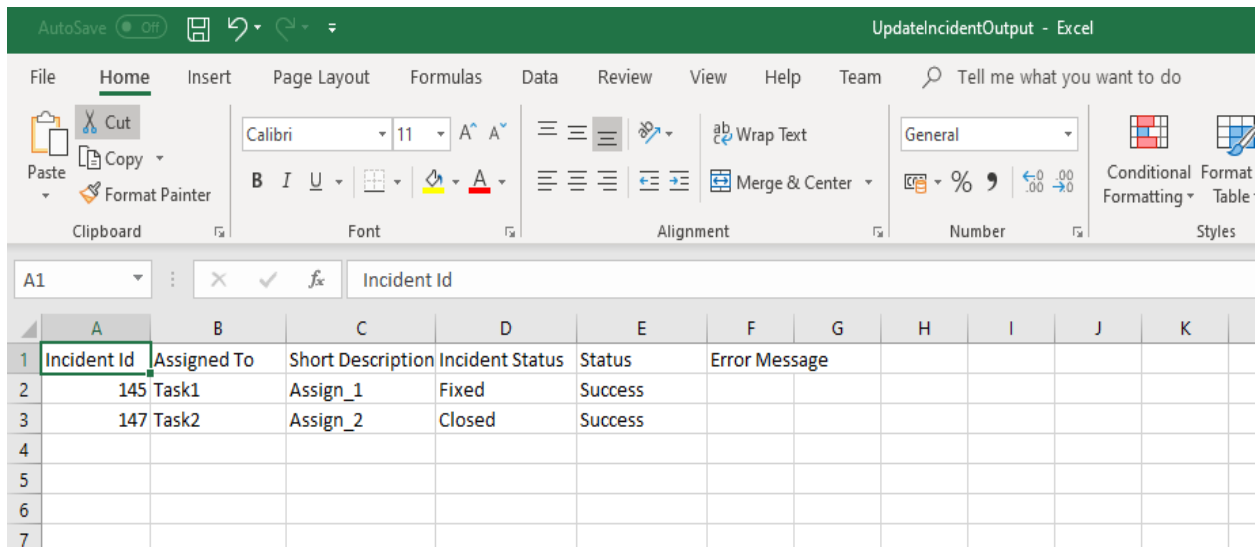
Update Incident

Input: Reads parameters from input csv file:



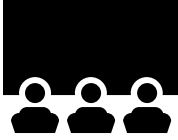
	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Incident Id	Assigned to	Short Description	Status									
2	145	Assign_1	Task1	Fixed									
3	147	Assign_2	Task2	Closed									
4													
5													
6													
7													
8													
9													

Output: Saves the result in the output csv file



	A	B	C	D	E	F	G	H	I	J	K
1	Incident Id	Assigned To	Short Description	Incident Status	Status	Error Message					
2	145	Task1	Assign_1	Fixed	Success						
3	147	Task2	Assign_2	Closed	Success						
4											
5											
6											
7											

Common Use cases



The fields in the [CSV](#) can be changed to whatever data that needs to be added in list. Examples of use cases includes:

- Create Incident in a regular form
- Read Incidents in a regular form
- Update Incidents in a regular form

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

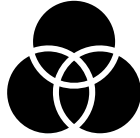


There are some security best practice recommendations that you may follow with your bot.

- 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](#)

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
Create Incident, Read Incidents, Update Incidents	BMCIncident.atmx	BMCIncident.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. BMCIncidentManager-AutomationAnywhere</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 HourMinSec.png ➤ Input Folder <ul style="list-style-type: none"> • CreateIncidentInput.csv • ReadIncidentInput.csv • UpdateIncidentInput.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 BMCIncidentManager-AutomationAnywhere</p> <p>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"> • CreateIncidentInput.csv provides parameters that can be used as input for the incident creation in form and given as an input to the bot. There can only be some fields that are used as input Submitter, Short Description and Assigned to which creates incident.

<div data-bbox="272 644 516 682" data-label="Section-Header"> <p>➤ Output Folder</p> </div> <div data-bbox="354 686 753 806" data-label="List-Group"> <ul style="list-style-type: none"> • CreateIncidentOutput.csv • ReadIncidentOutput.csv • UpdateIncidentOutput.csv </div> <div data-bbox="280 1050 459 1083" data-label="Section-Header"> <p>➤ My Tasks</p> </div> <div data-bbox="354 1089 714 1123" data-label="List-Group"> <ul style="list-style-type: none"> • 01 – BMCIncident.atmx </div> <div data-bbox="113 1251 349 1289" data-label="Section-Header"> <p>2. My MetaBots</p> </div> <div data-bbox="302 1289 592 1325" data-label="List-Group"> <p>➤ BMCIncident.mbot</p> </div>	<div data-bbox="954 195 1513 336" data-label="List-Group"> <ul style="list-style-type: none"> • ReadIncidentInput.csv provides parameter (Incident Id) that can be used as input for the incident for which details need to be retrieved from the form. </div> <div data-bbox="954 338 1513 531" data-label="List-Group"> <ul style="list-style-type: none"> • UpdateIncidentInput.csv provides parameters that are used for updating incident fields which are Assigned to, Short description and Status(one of Fixed, Closed, Assigned, Rejected) . </div> <div data-bbox="919 594 1513 699" data-label="Text"> <p>➤ Output Folder is where the output files that the bot creates after execution of the use case is saved</p> </div> <div data-bbox="954 703 1513 1039" data-label="List-Group"> <ul style="list-style-type: none"> • CreateIncidentOutput.csv contains Create Incident response along with status and error message, if any. • ReadIncidentOutput.csv contains Read Incident response along with status and error message, if any. • UpdateIncidentOutput.csv contains Update Incident response along with status and error message, if any. </div> <div data-bbox="919 1073 1513 1144" data-label="Text"> <p>➤ My Tasks folder contains all the developed Platform Source Code</p> </div> <div data-bbox="919 1287 1513 1356" data-label="Text"> <p>2.My MetaBots folder contains the developed Metabots needed for the bot execution.</p> </div>
--	---

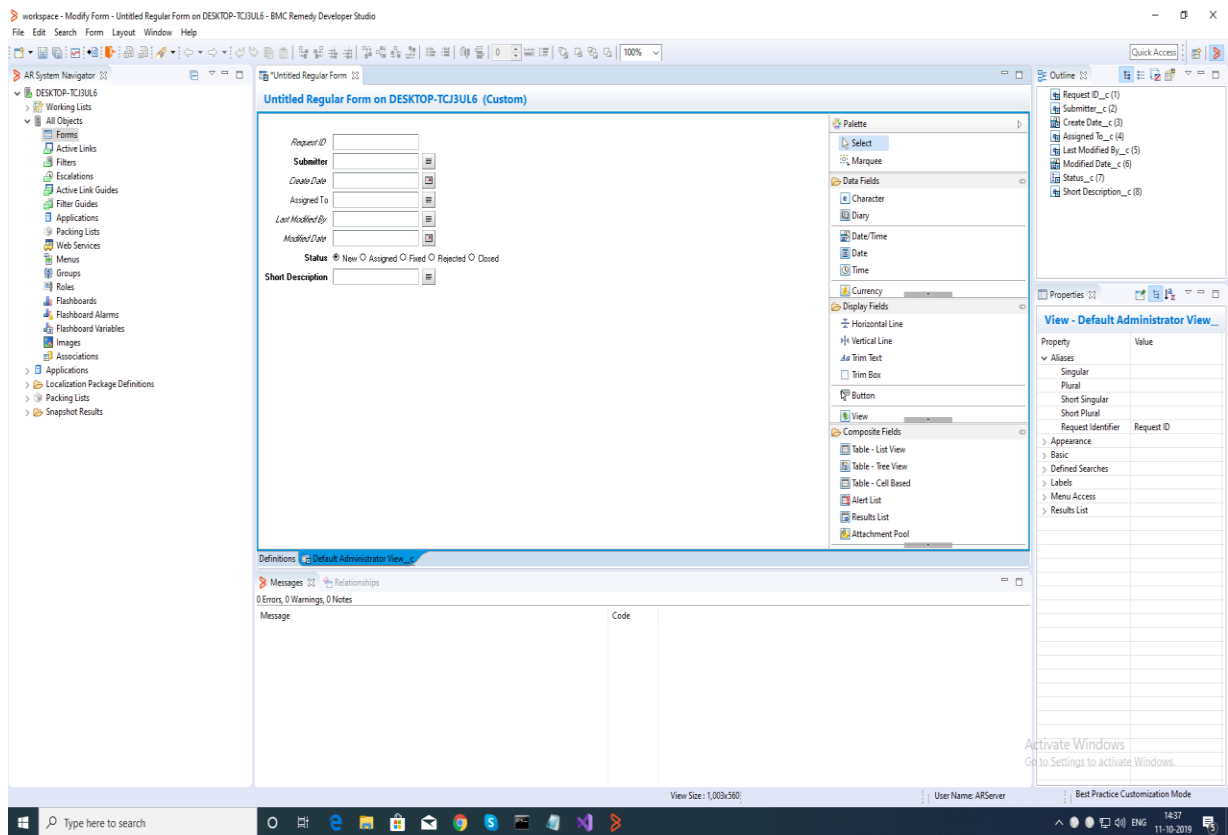
Quick Start

Setup



1.1.1.1 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](#)

1.1.1.2 Step 2 (Generating TokenURL and IncidentURL):

- 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-selector.xml 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.

AR 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.

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 Uri, 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
BMCIncident_Locker	BMCIncident_Credential	TokenURL	Token URL value should be as mentioned in step 2 of SetUp .
BMCIncident_Locker	BMCIncident_Credential	IncidentURL	Incident URL should be as mentioned in step 2 of SetUp .
BMCIncident_Locker	BMCIncident_Credential	Username	Username of BMC Remedy AR server
BMCIncident_Locker	BMCIncident_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 > BMCIncidentManager-AutomationAnywhere > Input Folder > CreateIncidentInput.csv

AA Application Path > My Tasks > Bot Store > BMCIncidentManager-AutomationAnywhere > Input Folder > GetIncidentInput.csv

AA Application Path > My Tasks > Bot Store > BMCIncidentManager-AutomationAnywhere > Input Folder > UpdateIncidentInput.csv

This is where, the input values for variables are stored that are needed by the bot at the time of execution. (Sensitive variables – like user name, password, and URLs will be an input in the Credential).

Below is a table that summaries 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
Prompt-Assignment	Text	Yes	Decides which metabot has been called based on its value Val: 1 CreateIncident Val:2 ReadIncident Val:3 UpdateIncident	2
vErrorFolder	Text	Yes	Location where Error folder is located	\$AAApplicationPath\$\Automation Anywhere\MyTasks\Bot Store\BMCIincidentManager-AutomationAnywhere\Error Folder
vInputCSVPath	Text	Yes	File path where Input CSV file is located	\$AAApplicationPath\$\Automation Anywhere\MyTasks\Bot Store\BMCIincidentManager-AutomationAnywhere\Input Folder\CreateIncidentInput.csv
vOutputCSVPath	Text	Yes	File path where Output CSV is located	\$AAApplicationPath\$\Automation Anywhere\MyTasks\Bot Store\BMCIincidentManager-AutomationAnywhere\Output Folder\CreateIncidentOutput.csv
vOutputFolder	Text	Yes	Location where Output folder is located.	\$AAApplicationPath\$\Automation Anywhere\MyTasks\Bot Store\BMCIincidentManager-AutomationAnywhere\Output Folder
vSnapshotFolder	Text	Yes	Location where Snapshot folder is located	\$AAApplicationPath\$\Automation Anywhere\MyTasks\Bot Store\BMCIincidentManager-AutomationAnywhere\Error Folder\Snapshots
vToken	Text	Yes	JWT token that is generated after calling Generate Token function	eyJhbGciOiJIUzI1Ni.....

vInputFolder	Text	Yes	Location where Input folder is located.	\$AAApplicationPath\$\Automation Anywhere\MyTasks\Bot Store\BMCIincidentManager-AutomationAnywhere\Input Folder
vLogFolder	Text	Yes	Location where Log folder is located.	\$AAApplicationPath\$\Automation Anywhere\MyTasks\Bot Store\BMCIincidentManager-AutomationAnywhere>Error Folder\Errors

Output Variables:

OUTPUT VARIABLES: SAVE OUTPUT RESPONSE				
Variable Name	Type	Mandatory (Yes/No)	Purpose	Example Input
vResponse	Text	Yes	Returns Success message about the incident	The result is generated in the output csv file.

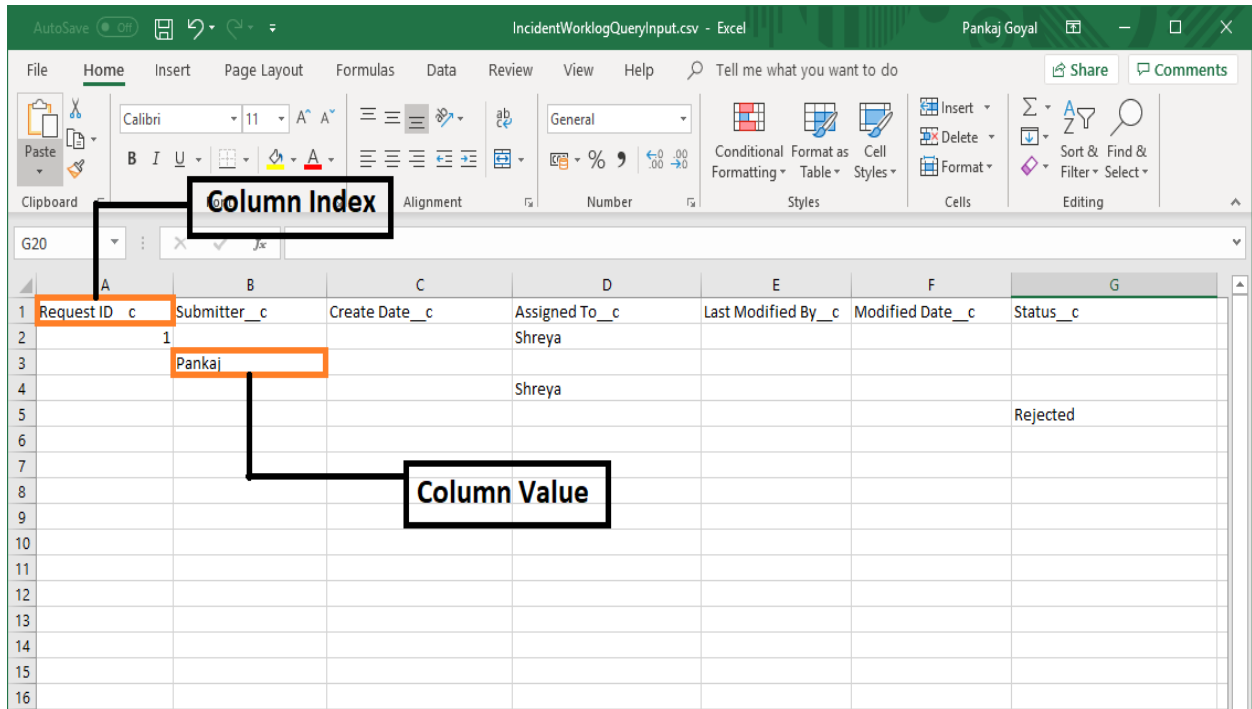
Guidance for configuring Filter conditions are described below:

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.



Request ID_c	Submitter_c	Create Date_c	Assigned To_c	Last Modified By_c	Modified Date_c	Status_c
1			Shreya			
	Pankaj					
			Shreya			
						Rejected

Input CSV Files-

CreateIncidentInput.csv

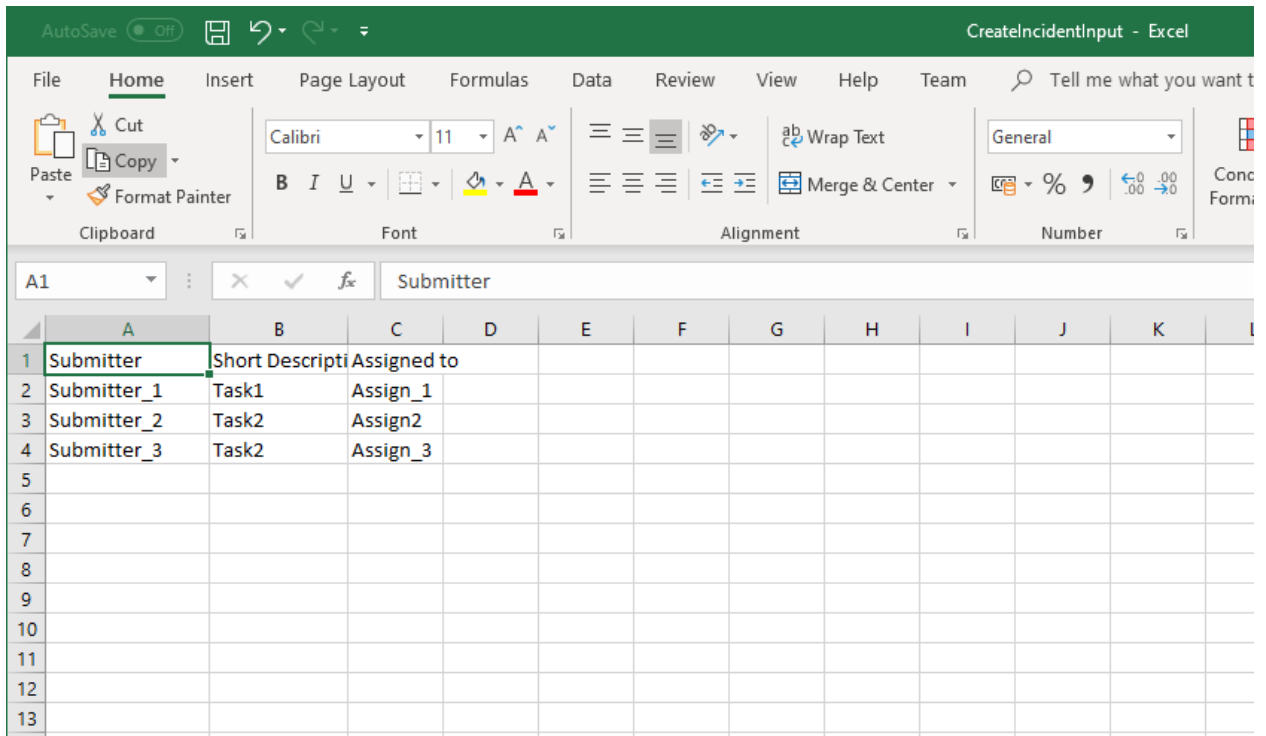
- Required Parameters-**

File Parameter Name	Type	Description	Example Input
Submitter	Text	Submitter's name of the incident	Submitter_Test
Short Description	Text	Short Description about the incident	A short description about the incident

- Optional Parameters -**

(If you don't want to add any value in the parameter leave it empty)

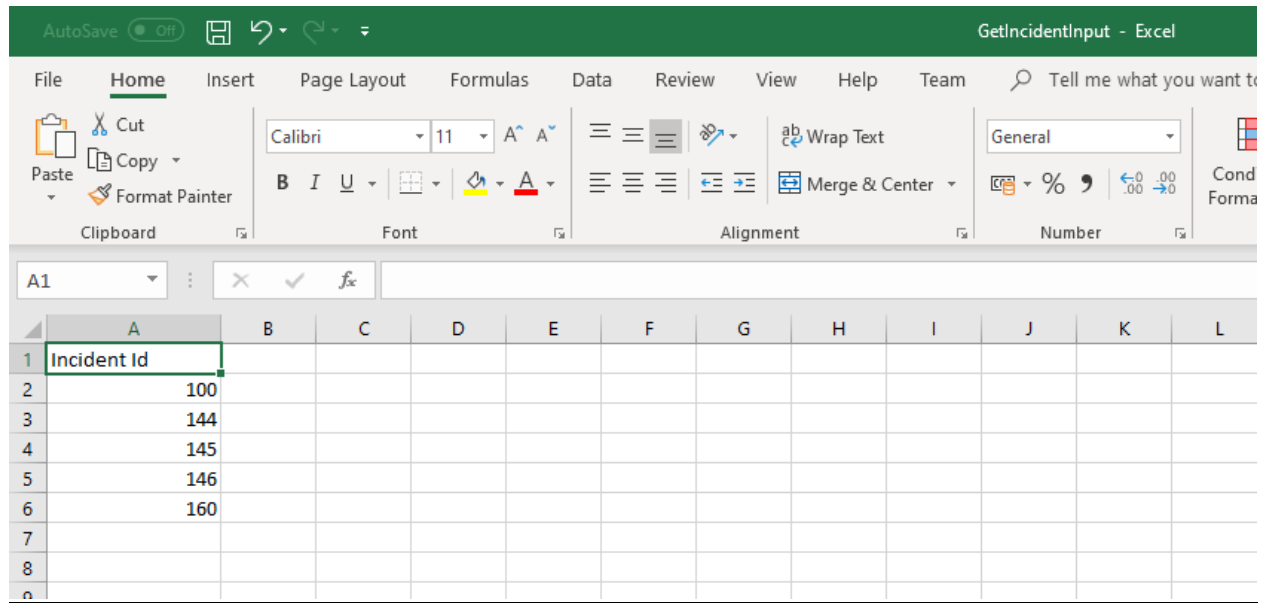
File Parameter Name	Type	Description	Example Input
Assigned to	Text	Name of the person who is assigned this incident	Assignee_Test



GetIncidentInput.csv

- **Required Parameters-**

File Parameter Name	Type	Description	Example Input
Incident Id	Text	Incident Id whose description has been fetched	00000019



	A	B	C	D	E	F	G	H	I	J	K	L
1	Incident Id											
2	100											
3	144											
4	145											
5	146											
6	160											

UpdateIncidentInput.csv





- Required Parameters-**

File Parameter Name	Type	Description	Example Input
Incident Id	Text	Incident Id whose description has been updated	00000019

- Optional Parameters -**




(If you don't want to add any value in the parameter leave it empty)

File Parameter Name	Type	Description	Example Input
Assigned to	Text	Name of the person who is assigned this incident	Assignee_Test
Short Description	Text	Updated Short Description about the incident	A new short description about the incident

AutoSave Off     UpdateIncidentInput - Excel

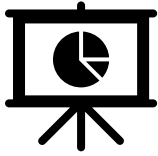
File Home Insert Page Layout Formulas Data Review View Help Team Tell me what you want to do

Clipboard Font Alignment Number Styles

C1    Short Description

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Incident Id	Assigned to	Short Description	Status									
2	145	Assign_1	Task1	Fixed									
3	147	Assign_2	Task2	Closed									
4													
5													
6													
7													
8													
9													

4. Reports



There are no Bot Insight Reports generated for this Bot.

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:

↑ << Bot Store > BMCIncidentManager-AutomationAnywhere > Error Folder > Logs

New folder

Name	Date modified	Type	Size
Error Logs 10-11-2019.txt	11-10-2019 13:09	Text Document	1 KB
Error Logs 10-14-2019.txt	14-10-2019 12:51	Text Document	2 KB

(14-10-2019 17:50:29)

=====

Task : C:\Users\Administrator\Documents\Automation Anywhere Files\Automation Anywhere\My Tasks\Bot Store\BMCIncidentManager-Automation Anywhere\My Tasks\BMCIncidents.atmx

Error Line Number: "27"

Error Description: Either Token URL or UserName is Empty. They Can never be empty

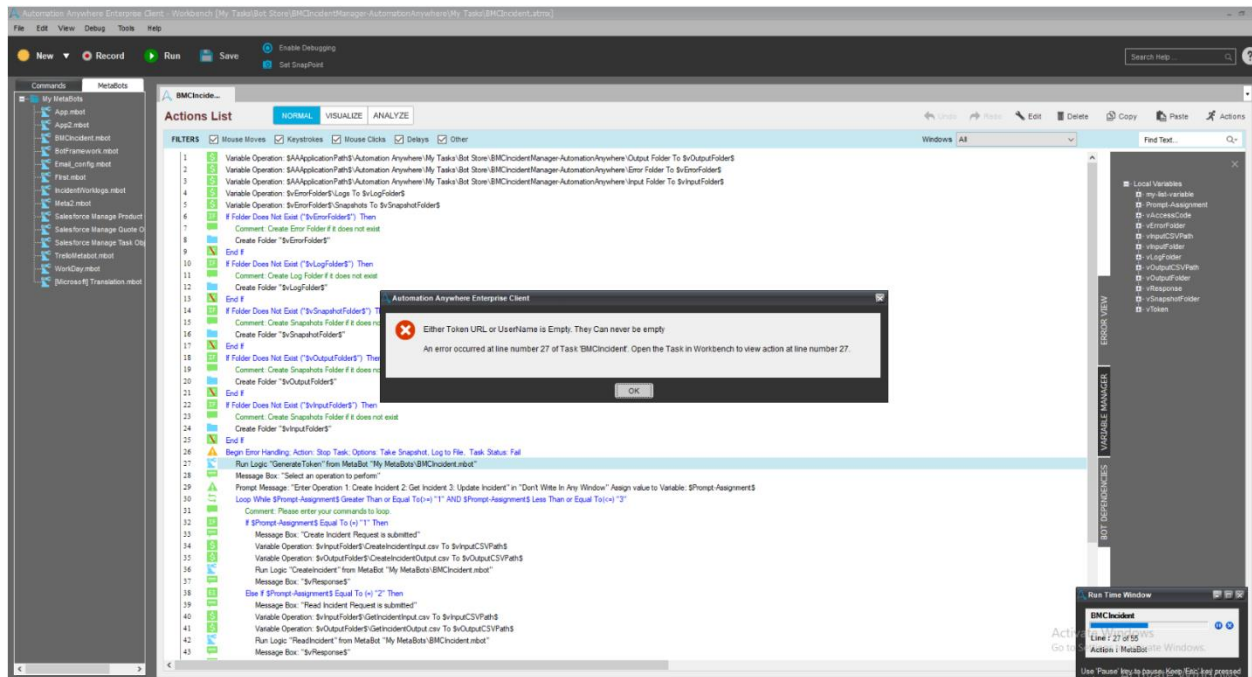
=====

Activate Window

Example of Screenshot Generated Error File:

This PC > Documents > Automation Anywhere Files > Automation Anywhere > My Tasks > Bot Store > BMCIincidentManager-AutomationAnywhere > Error Folder > Snapshots

Name	Date	Type	Size	Tags
Error Snap 10-11-20...	11-10-2019 13:05	PNG File	219 KB	
Error Snap 10-11-20...	11-10-2019 13:09	PNG File	226 KB	
Error Snap 10-11-20...	11-10-2019 12:19	PNG File	151 KB	



The screenshot displays the Automation Anywhere Enterprise Client interface. The 'Actions List' tab is active, showing a sequence of actions for a task named 'BMCIincident'. The actions include variable operations, folder creation, and a loop structure. An error dialog box is overlaid on the interface, indicating a failure at line 27 of the task. The error message is: 'Either Token URL or Username is Empty. They can never be empty. An error occurred at line number 27 of Task 'BMCIincident'. Open the Task in Workbench to view action at line number 27.' The dialog box has an 'OK' button.

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	<i>October 21, 2019</i>	Nikhil Gupta Pankaj Goyal	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