AppPerfect

TrelloBot-AppPerfect Corporation

Readme

Version 1.0

August 29, 2019

Table of Contents

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 Create, Copy, Delete and for Get 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. Each use case Create, Copy, Delete and Get will apply on Trello Boards, Lists and Cards.

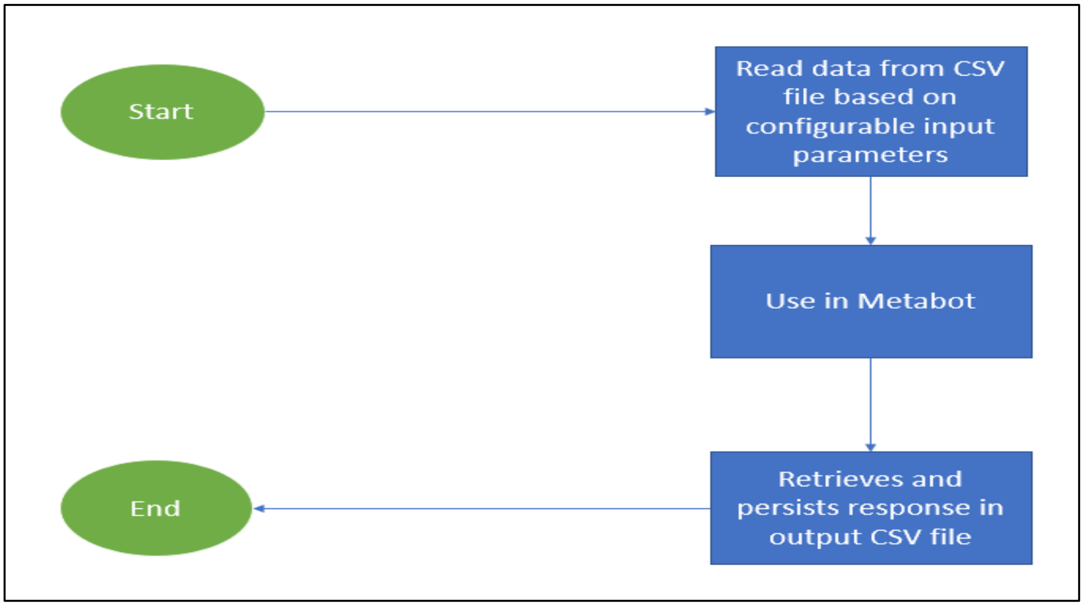
Detailed steps are as follows:

1) Reads data from a CSV file, e.g. CreateBoard.csv, CreateList.csv, DeleteBoard.csv.
2) Exports data from the CSV Template based on Filter conditions set by a user through a Configuration File.

   Filter conditions are as below (Click individual to read details)

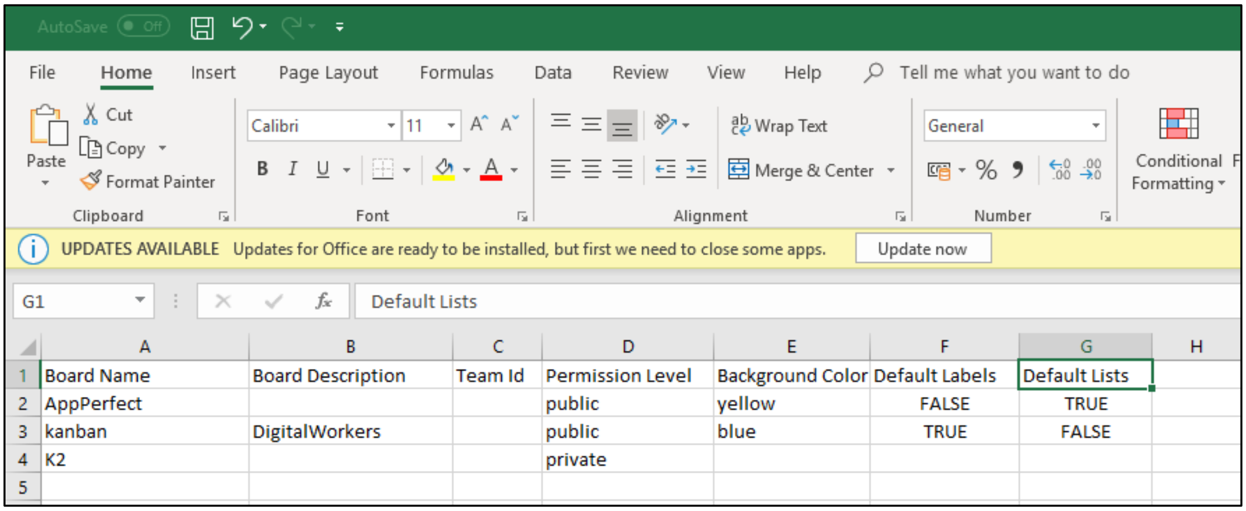
   - **Filter based on Column Value**

- **Visual flow**


Start
Read data from CSV file based on configurable input parameters
Use in Metabot
Retrieves and persists response in output CSV file
End

- **Input and Output Example –**

- **Input: Use case information from CSV File:**

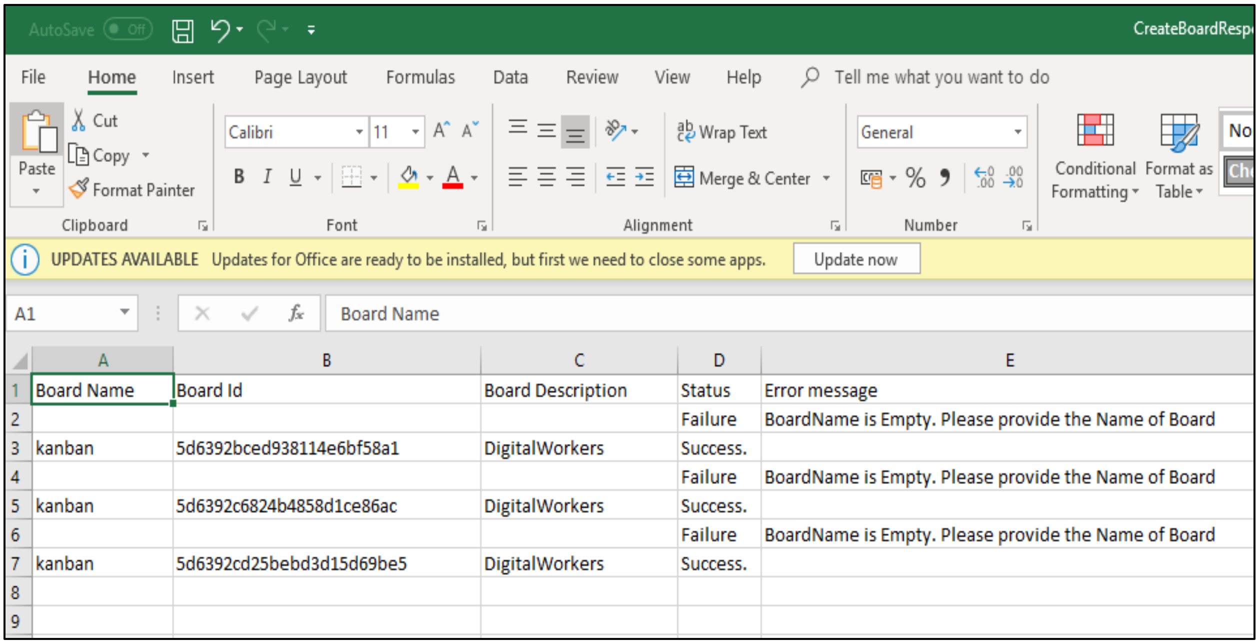


UPDATES AVAILABLE Updates for Office are ready to be installed, but first we need to close some apps.

G1: Default Lists

	A	B	C	D	E	F	G	H
1	Board Name	Board Description	Team Id	Permission Level	Background Color	Default Labels	Default Lists	
2	AppPerfect			public	yellow	FALSE	TRUE	
3	kanban	DigitalWorkers		public	blue	TRUE	FALSE	
4	K2			private				
5								

- **Output: Store in csv file:**



UPDATES AVAILABLE Updates for Office are ready to be installed, but first we need to close some apps.

A1: Board Name

	A	B	C	D	E
1	Board Name	Board Id	Board Description	Status	Error message
2				Failure	BoardName is Empty. Please provide the Name of Board
3	kanban	5d6392bced938114e6bf58a1	DigitalWorkers	Success.	
4				Failure	BoardName is Empty. Please provide the Name of Board
5	kanban	5d6392c6824b4858d1ce86ac	DigitalWorkers	Success.	
6				Failure	BoardName is Empty. Please provide the Name of Board
7	kanban	5d6392cd25bebd3d15d69be5	DigitalWorkers	Success.	
8					
9					

Common Use cases

A common use case, as shown above, is create board in Trello workspace.

The fields in the CSV can be changed to whatever data that needs to be added in list. Examples of other use cases includes:

- Create List
- Create Card
- Get Board
- Get list
- Get card
- Copy board
- Copy list
- Copy card
- Delete board
- Delete list
- Delete Card

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 –**

✓ Trello Account. Trello 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 regenerate Trello API Token twice or more in a quarter or revoke it whenever not in use using Trello user account settings to ensure data safety.

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
Create, Copy, Get, Delete (Board, List, Card)	01-Trello Taskbot.atmx	TrelloMetabot.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**
<AA Application Path> **1. My Tasks** **1.1. Bot Store** **1.1.1 TrelloBot-AppPerfectCorporation** ➢ **Error Folder** • **Logs** ○ Error logs Month-Day-Year Hour Min Sec.txt • **Snapshots** ○ Error Snap Month-Day-Year.png ➢ **Input Folder** • CreateBoard.csv • CreateList.csv • CreateCard.csv • CopyBoard.csv • CopyList.csv • CopyCard.csv • DeleteBoard.csv • DeleteList.csv • DeleteCard.csv	**<AA Application Path>** is the location where AA files are stored on your machine **2. My Tasks** My Task Folder is the default directory where Bot Files are saved. **2.1 Bot Store** Bot Store Folder contains the Bot Name Folder which the installer creates while installation of the Bot. **2.1.1 TrelloBot-AppPerfectCorporation** This folder gets created by the installer and contains files and folders that are needed for the bot execution. ➢ **Error folder** is where logs and snapshots of screens will be placed if something goes wrong with the bot during execution ➢ **Input Folder** is where the input files are saved that are needed by the taskbot for execution of the use case • **CreateBoard.csv** provides parameters involved in board creation that can be provided as an input to the bot. • **CreateList.csv** provides parameters involved in list creation that can be provided as an input to the bot. • **CreateCard.csv** provides parameters involved in card creation that can be provided as an input to the bot. • **CopyBoard.csv** provides parameters involved in copy board that can be provided as an input to the bot. • **CopyList.csv** provides parameters involved in copy list that can be provided as an input to the bot.

➢ **Output Folder**

- CreateBoardResponse.csv
- CreateListResponse.csv
- CreateCardResponse.csv
- CopyBoardResponse.csv
- CopyListResponse.csv
- CopyCardResponse.csv
- DeleteBoardResponse.csv
- DeleteListResponse.csv
- DeleteCardResponse.csv
- GetBoardsResponse.csv
- GetListsResponse.csv
- GetCardsResponse.csv

- **CopyCard.csv** provides parameters involved in copy card that can be provided as an input to the bot.
- **DeleteBoard.csv** provides parameters involved in delete board that can be provided as an input to the bot.
- **DeleteList.csv** provides parameters involved in delete list that can be provided as an input to the bot.
- **DeleteCard.csv** provides parameters involved in delete card that can be provided as an input to the bot.

➢ **Output Folder** is where the output files that the bot creates after execution of the use case is saved

- **CreateBoardResponse.csv** contains create board response along with status and error message, if any.
- **CreateListResponse.csv** contains create list response along with status and error message, if any.
- **CreateCardResponse.csv** contains create card response along with status and error message, if any.
- **CopyBoardResponse.csv** contains copy board response along with status and error message, if any.
- **CopyListResponse.csv** contains copy list response along with status and error message, if any.
- **CopyCardResponse.csv** contains copy card response along with status and error message, if any.
- **DeleteBoardResponse.csv** contains delete board response along with status and error message, if any.
- **CloseListResponse.csv** contains close list response along with status and error message, If any.
- **DeleteCardResponse.csv** contains delete card response along with status and error message, if any.
- **GetBoardResponse.csv** contains board Id, board name and board description

➤ **My Tasks** • 01 –Trello Taskbot .atmx	• **GetListResponse.csv** contains board id, board name, list name ,list id. • **GetCardResponse.csv** contains contains board name, list name, card name, card Id. ➤ **My Tasks** folder contains all the developed Platform Source Code
2. **My MetaBots** ➤ Trello.mbot	3. **My MetaBots** folder contains the developed Metabots needed for the bot execution.

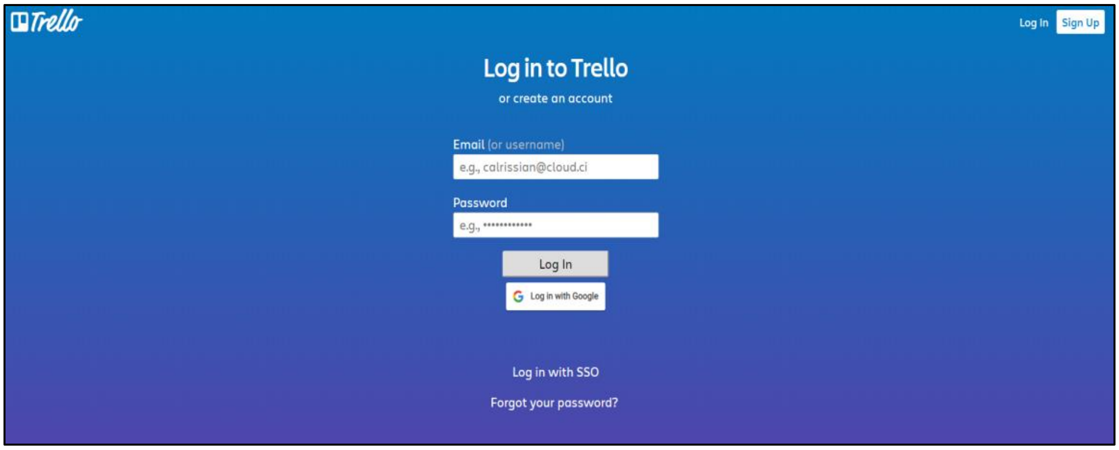
Quick Start

3.1.1 Setup

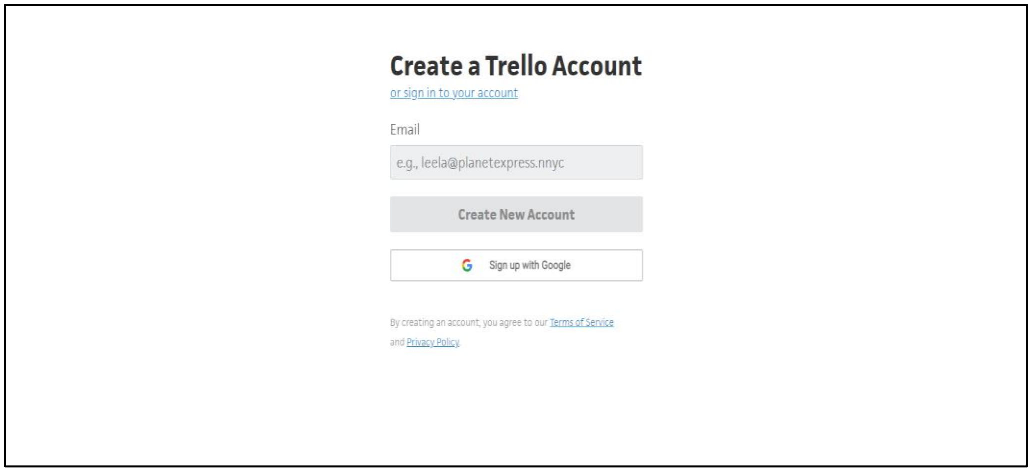
STEP 1 (Setting up a Trello Account):

Click here

The below page will appear once the above link is clicked –



- If you already have an account, click on ‘**Log in**’.
- For new users, click on ‘**Sign up** for creating account on Trello.



Create a Trello Account

or sign in to your account

Email

e.g., leela@planetexpress.nnyc

Create New Account

Sign up with Google

By creating an account, you agree to our Terms of Service and Privacy Policy.

<u>Step 2 (Generating URL, Keys & Tokens):</u>

Trello URL

- Trello URL Should be consider as: https://api.trello.com

Find and Generate the API Key

- Click here to navigate to the page of generating **API key** and copy the existing API Key display on the page. (User must be already signed in for this purpose)

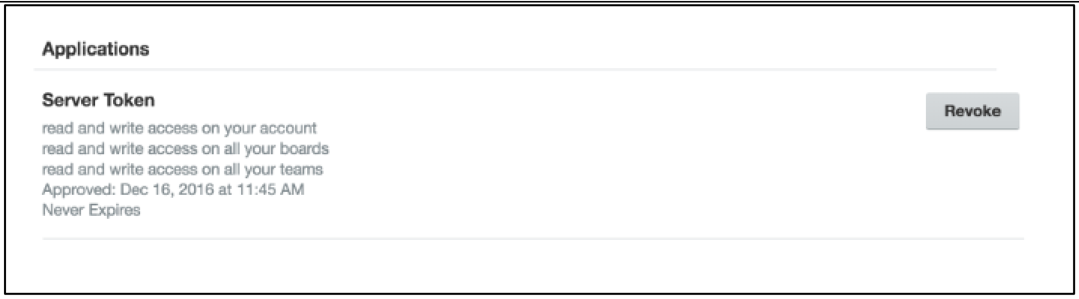
Find and Generate the API Token

- Click here to navigate to the page of generating **API Token** which never expires until user revoke it. Click on “**Allow**” button, this will navigate to the page consisting generated **API Token**. (User must be already signed in for this purpose)
- If User needs to create API Token for specific interval, then user needs to specify specific interval in the URL mentioned below.
  https://trello.com/1/authorize?expiration=1day&name=MyPersonalToken&scope=read&response_type=token&key={YourAPIKey}

  Note:
  Above URL expiration parameter can take values as 1hour, 1day, 30days and never.

Revoke API Token

- User can Revoke API Token at any point using Trello user account settings.



Applications

Server Token

read and write access on your account
read and write access on all your boards
read and write access on all your teams
Approved: Dec 16, 2016 at 11:45 AM
Never Expires

3.1.2 Inputting your Access Code

Step by Step Guide for Customers: Inputting Your Access Code click here

3.1.3 Configuration

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

Passwords and other sensitive information such as APIkey and Token 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 TrelloURL, APIKey and Token for Trello 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 "Trello"
- Credential needs to created with name as "Trello Credentials", where the URL and Token needs to be saved.

Locker Name	Credentials Name	Attribute Name	Value
Trello	Trello Credentials	Trello Url	Trello Url value should be as https://api.trello.com as mentioned above
Trello	Trello Credentials	APIKey	Add APIKey value which is generated using above links
Trello	Trello Credentials	Token	Add Token value which is

			generated using above links

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 >TrelloBot-AppPerfectCorporation> Input > CreateBoard.csv

AA Application Path > My Tasks > Bot Store > TrelloBot-AppPerfectCorporation > Input > CreateList.csv

AA Application Path > My Tasks > Bot Store > TrelloBot-AppPerfectCorporation > Input > CreateCard.csv

AA Application Path > My Tasks > Bot Store > TrelloBot-AppPerfectCorporation > Input > CopyBoard.csv

AA Application Path > My Tasks > Bot Store > TrelloBot-AppPerfectCorporation > Input > CopyList.csv

AA Application Path > My Tasks > Bot Store > TrelloBot-AppPerfectCorporation > Input > CopyCard.csv

AA Application Path > My Tasks > Bot Store > TrelloBot-AppPerfectCorporation > Input > DeleteBoard.csv

AA Application Path > My Tasks > Bot Store > TrelloBot-AppPerfectCorporation > Input >CloseList.csv

AA Application Path > My Tasks > Bot Store > TrelloBot-AppPerfectCorporation > Input>DeleteCard.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.

CreateBoard.csv: Board Name, Board Description, Team Id, Permission Level, Background Color, Default Labels, Default Lists.

CreateList.csv: List Name, Board Id, Board Name, Shared User Id, Position.

CreateCard.csv: List Id, Board Name, List Name, Card Name, Shared User Id, Card Description, Position, Due Date, Due Complete (True/False).

CopyBard.csv: Board Name, Board Description, Team Id, Source Board Id, Permission Level

CopyList.csv: Shared User Id, Board Id, Board Name, List Name, Source List Id, Position

CopyCard.csv: Shared User Id, Board Name, List Name, List Id, Card Name, Source Card Id

DeleteBoard.csv: Shared User Id, Board Name, Board Id

CloseList.csv: Shared User Id, Board Name, List Name, List Id

DeleteCard.csv: Shared User Id, Board Name, List Name, Card Name, Card Id

Sensitive variables like TrelloUrl, APIKey, Token are stored in credential vault.

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

Input variables:

INPUT VARIABLES: NEEDS TO BE CONFIGURED BY THE USERS FOR INPUT PARAMETER				
Variable Name	**Type**	**Mandatory (Yes/No)**	**Purpose**	**Example Input**
vCreateBoardInputFilePath	Text	Yes	File Name for the template from which Bot reads the value .	CreateBoard.csv
vCopyBoardInputFilePath	Text	Yes	File Name for the template from which Bot reads the value .	CopyBoard.csv
vDeleteBoardInputFilePath	Text	Yes	File Name for the template from which Bot reads the value .	DeleteBoard.csv
vSharedUserId	Text	Yes	Shared user id with which information need to be retrieved.	Pankajgoyal25
vGetBoardName	Text	No	Board Name with which information need to be retrieved.	AppPerfect

Output Variables:

OUTPUT VARIABLES: SAVE OUTPUT RESPONSE				
Variable Name	**Type**	**Mandatory (Yes/No)**	**Purpose**	**Example Input**

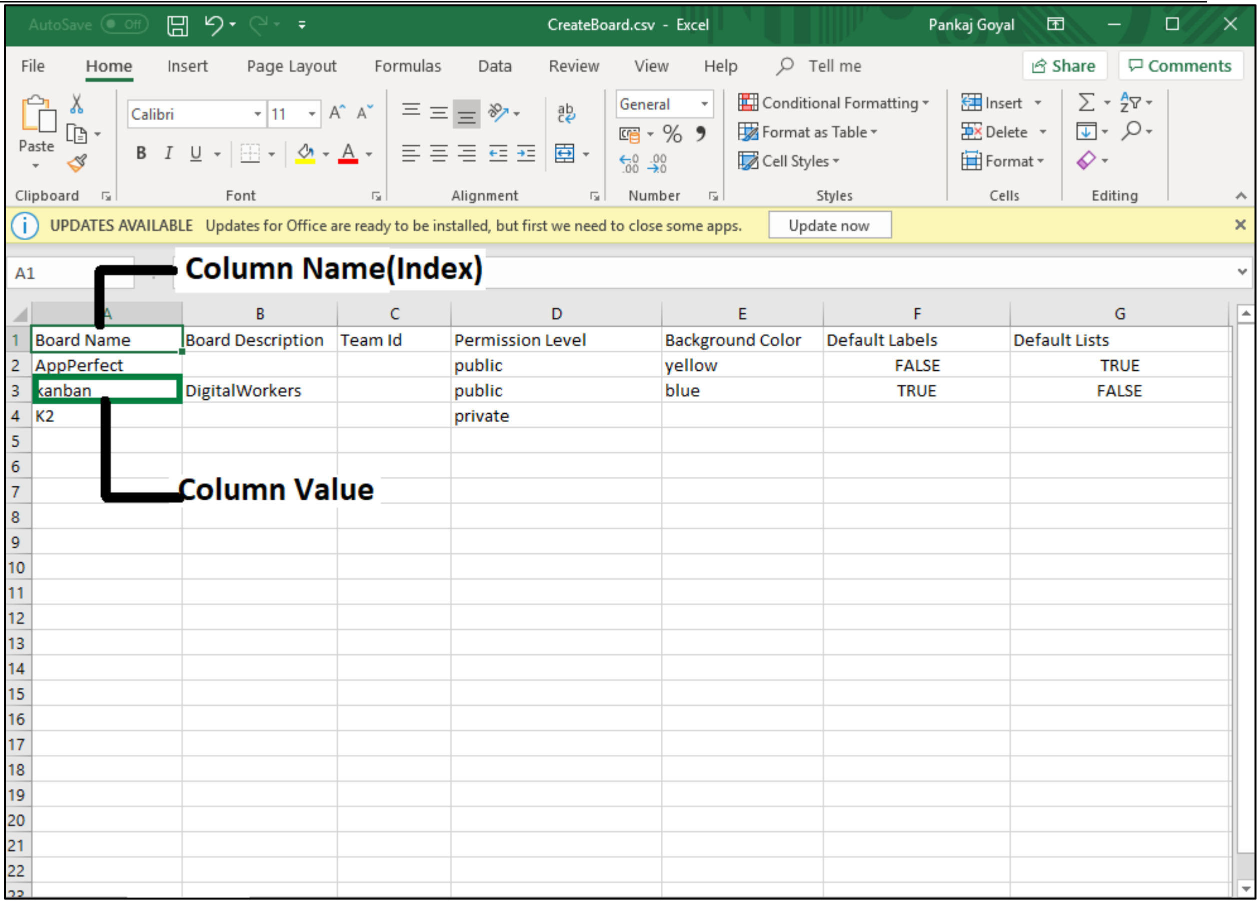
VCreateBoardResponseFilePath	Text	Yes	File Name for the response of board creation	CreateBoardResponse.csv
vCopyBoardResponseFilePath	Text	Yes	File Name for the response of board creation	CopyBoardResponse.csv
vDeleteBoardResponseFilePath	Text	Yes	File Name in which Bot write the response.	DeletebOardResponse.csv
vGetBoardOutputFilePath	Text	Yes	File Name for the template in which Bot writes the response.	GetBoardOutputFilePath.csv

Guidance for configurating 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.



Column Name(Index)

Column Value

	A	B	C	D	E	F	G
1	Board Name	Board Description	Team Id	Permission Level	Background Color	Default Labels	Default Lists
2	AppPerfect			public	yellow	FALSE	TRUE
3	kanban	DigitalWorkers		public	blue	TRUE	FALSE
4	K2			private			

4. Reports

There are no Bot Insight Reports generated for this Bot.

5. Logs

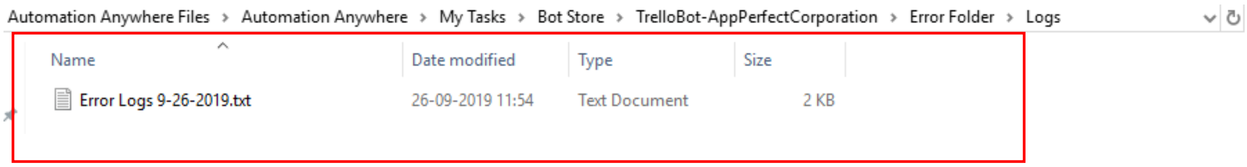
In case of Errors, Error Logs & Screenshots are generated within Error Folder (Highlighted below in yellow)

- 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 -

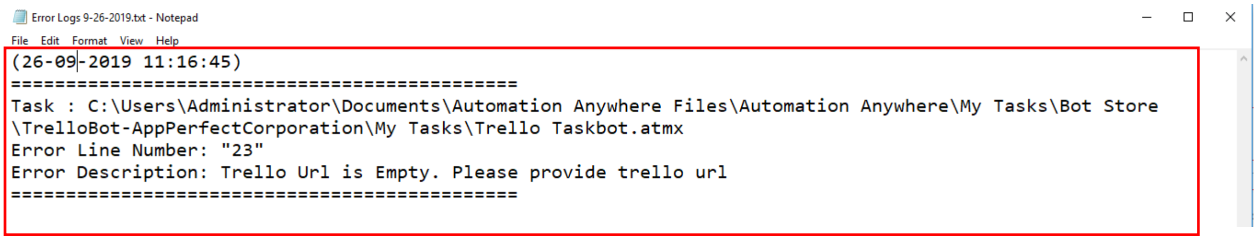
- Task Name
- Error Line Number
- Error Description
- Generated Timestamp

Example:



Automation Anywhere Files › Automation Anywhere › My Tasks › Bot Store › TrelloBot-AppPerfectCorporation › Error Folder › Logs

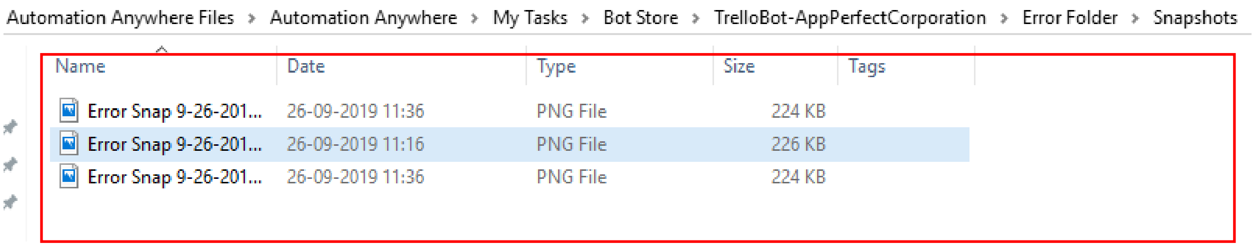
Name	Date modified	Type	Size
Error Logs 9-26-2019.txt	26-09-2019 11:54	Text Document	2 KB



Error Logs 9-26-2019.txt - Notepad

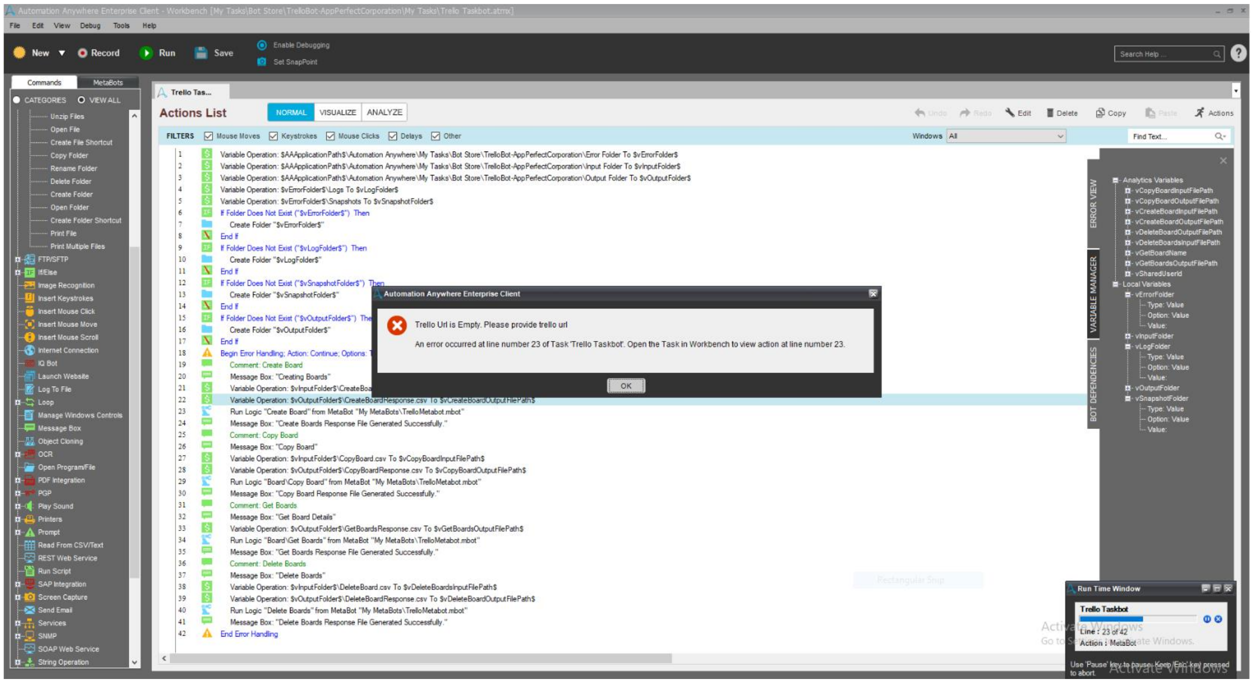
```
(26-09-2019 11:16:45)
==============================================
Task : C:\Users\Administrator\Documents\Automation Anywhere Files\Automation Anywhere\My Tasks\Bot Store
\TrelloBot-AppPerfectCorporation\My Tasks\Trello Taskbot.atmx
Error Line Number: "23"
Error Description: Trello Url is Empty. Please provide trello url
==============================================
```

Example of Screenshot Generated Error File:



Automation Anywhere Files › Automation Anywhere › My Tasks › Bot Store › TrelloBot-AppPerfectCorporation › Error Folder › Snapshots

Name	Date	Type	Size	Tags
Error Snap 9-26-201...	26-09-2019 11:36	PNG File	224 KB	
Error Snap 9-26-201...	26-09-2019 11:16	PNG File	226 KB	
Error Snap 9-26-201...	26-09-2019 11:36	PNG File	224 KB	



Automation Anywhere Enterprise Client - Workbench [My Tasks\Bot Store\TrelloBot-AppPerfectCorporation\My Tasks\Trello Taskbot.atmx]

FILTERS ☑ Mouse Moves ☑ Keystrokes ☑ Mouse Clicks ☑ Delays ☑ Other

```
1  Variable Operation: $AAApplicationPath$\Automation Anywhere\My Tasks\Bot Store\TrelloBot-AppPerfectCorporation\Error Folder To $vErrorFolder$
2  Variable Operation: $AAApplicationPath$\Automation Anywhere\My Tasks\Bot Store\TrelloBot-AppPerfectCorporation\Input Folder To $vInputFolder$
3  Variable Operation: $AAApplicationPath$\Automation Anywhere\My Tasks\Bot Store\TrelloBot-AppPerfectCorporation\Output Folder To $vOutputFolder$
4  Variable Operation: $vErrorFolder$\Logs To $vLogFolder$
5  Variable Operation: $vErrorFolder$\Snapshots To $vSnapshotFolder$
6  If Folder Does Not Exist ("$vErrorFolder$") Then
7      Create Folder "$vErrorFolder$"
8  End If
9  If Folder Does Not Exist ("$vLogFolder$") Then
10     Create Folder "$vLogFolder$"
11 End If
12 If Folder Does Not Exist ("$vSnapshotFolder$") Then
13     Create Folder "$vSnapshotFolder$"
14 End If
15 If Folder Does Not Exist ("$vOutputFolder$") The
16     Create Folder "$vOutputFolder$"
17 End If
18 Begin Error Handling; Action: Continue; Options: T
19     Comment: Create Board
20     Message Box: "Creating Boards"
21     Variable Operation: $vInputFolder$\CreateBoa
22     Variable Operation: $vOutputFolder$\CreateBoardResponse.csv To $vCreateBoardOutputFilePath$
23     Run Logic "Create Board" from MetaBot "My MetaBots\TrelloMetabot.mbot"
24     Message Box: "Create Boards Response File Generated Successfully."
25     Comment: Copy Board
26     Message Box: "Copy Board"
27     Variable Operation: $vInputFolder$\CopyBoard.csv To $vCopyBoardInputFilePath$
28     Variable Operation: $vOutputFolder$\CopyBoardResponse.csv To $vCopyBoardOutputFilePath$
29     Run Logic "Board\Copy Board" from MetaBot "My MetaBots\TrelloMetabot.mbot"
30     Message Box: "Copy Board Response File Generated Successfully."
31     Comment: Get Boards
32     Message Box: "Get Board Details"
33     Variable Operation: $vOutputFolder$\GetBoardsResponse.csv To $vGetBoardsOutputFilePath$
34     Run Logic "Board\Get Boards" from MetaBot "My MetaBots\TrelloMetabot.mbot"
35     Message Box: "Get Boards Response File Generated Successfully."
36     Comment: Delete Boards
37     Message Box: "Delete Boards"
38     Variable Operation: $vInputFolder$\DeleteBoard.csv To $vDeleteBoardsInputFilePath$
39     Variable Operation: $vOutputFolder$\DeleteBoardResponse.csv To $vDeleteBoardOutputFilePath$
40     Run Logic "Delete Boards" from MetaBot "My MetaBots\TrelloMetabot.mbot"
41     Message Box: "Delete Boards Response File Generated Successfully."
42 End Error Handling
```

Automation Anywhere Enterprise Client

Trello Url is Empty. Please provide trello url

An error occurred at line number 23 of Task 'Trello Taskbot'. Open the Task in Workbench to view action at line number 23.

OK

Analytics Variables
- vCopyBoardInputFilePath
- vCopyBoardOutputFilePath
- vCreateBoardInputFilePath
- vCreateBoardOutputFilePath
- vDeleteBoardOutputFilePath
- vDeleteBoardsInputFilePath
- vGetBoardName
- vGetBoardsOutputFilePath
- vSharedUserId

Local Variables
- vErrorFolder
  - Type: Value
  - Option: Value
  - Value:
- vInputFolder
- vLogFolder
  - Type: Value
  - Option: Value
  - Value:
- vOutputFolder
- vSnapshotFolder
  - Type: Value
  - Option: Value
  - Value:

Run Time Window

Trello Taskbot

Line : 23 of 42

Action : MetaBot

Use 'Pause' key to pause; Keep 'Esc' key pressed to abort.

6. Troubleshooting & Support

Support

Please visit our Support Portal for any assistance on Bot functionality or Feature.

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	29/08/2019	AppPerfectCorporation	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*