D3MO

EST. ⚡ now

<CopyPastePptToExcel>

Readme

Table of Contents

1.   Introduction

This bot copies charts/graphs from Excel and pastes them to PowerPoint as Enhanced Metafiles. Afterwards, it will resize and position the chart/graph per user's need. This bot is designed for recurring monthly PowerPoint decks or other situations when the location of charts/graphs in both the source and destination do not change position or size. Linking charts was an option the team tried before but having multiple complicated source documents steered them towards wanting a different solution. As a simple pilot, this bot was built with the help of APeople members and AAE documentation/online training.

1.1   Overview

- *The first task CleanDesktop forcibly closes Excel and PowerPoint.*

- *Next task is VariablizeCurrentBook.atmx which assigns the name of the book to vWorkBookName, performs a string manipulation to remove the " – Excel" appended to the end of the window name, and assigns it to vTrimmedWorkBookName*

1		Variable Operation: VariablizeCurrentBook.atmx To $vTaskName$
2		Comment: Fetches Excel Doc in Input folder and Assigns to Variable vTrimmedWorkbookName
3	⚠	Begin Error Handling; Action: Stop Task; Options: Take Snapshot, Log to File, Variable Assignment, Task Status: Fail
4	⇄	Start Loop "Each File In Folder $vProjectFolderPath$\Input Folder"
5	IF	If $Extension$ Equal To (=) "xlsx" Then
6		Excel: Open Spreadsheet "$vProjectFolderPath$\Input Folder\$FileName$.xlsx". ActiveSheet: "Default". Session: Default
7		Get Active Window Title: Assign to "$vWorkbookName$"
8		End If
9		End Loop
10		String Operation: Replace " - Excel" with "" in "$vWorkbookName$" and assign output to $vTrimmedWorkBookName$
11		Activate Window: "*Excel*"
12		Delay: (200 ms)
13		Maximize Window: "*Excel*"
14		Delay: (200 ms)
15		Comment: Closes the Document Recovery tab if present. This shows up if program is previously force closed.
16	IF	If Windows Object (StaticText: 'Excel has recovered the following files. Save the ones you wish to keep.') Properties in the window "*Excel*"
17		Object Cloning: Click On PushButton "Close" in window "*Excel*"; Click Type: Left Click; Source: Window; Play Type: Image
18		End If
19		Message Box: "$vTrimmedWorkBookName$ :: $vWorkbookName$"
20	⚠	End Error Handling

- *The task then opens the Excel spreadsheet and checks to see if the document is in 'Document Recovery' state and if so, it will click close to take it out of this state. If not, it will simply continue. Document recovery state is expected if the program was forcibly closed.*
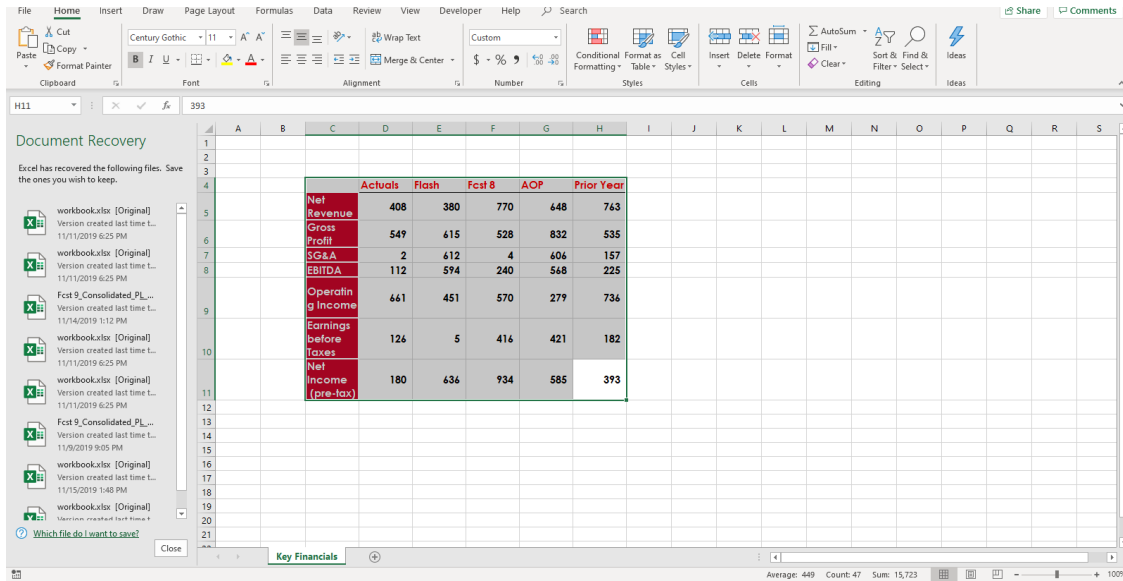
- *Close_Ppt_Document_Recovery.atmx will open the template.pptx file and repeat the same logic to check for document recovery state on the PowerPoint document.*
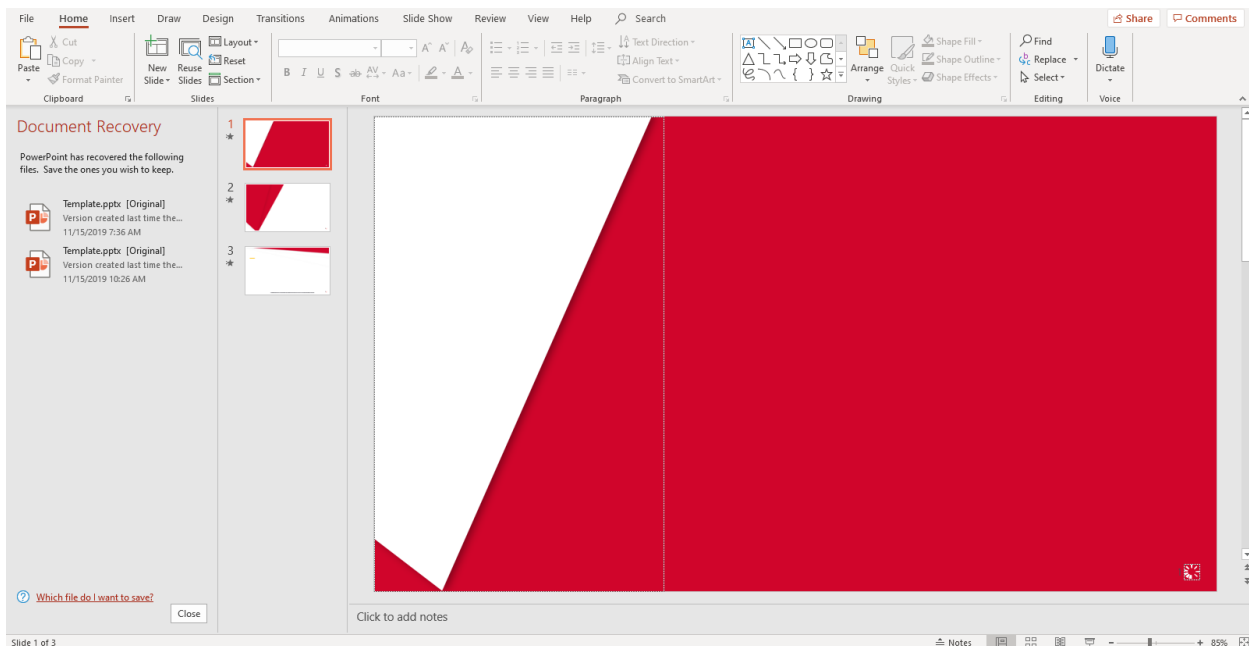
- *Master_SlideBot calls individual Slide_Bots, which are responsible for 1 slide each. Each new slide gets a new Slide_Bot.*

- *SlideBot_Template starts by opening the spreadsheet to the relevant sheet for the first fetch and assigning a session to the worksheet by name. Ex. S1 = Key Financials.*

  - *11.3.2 does not allow passing sessions between subtasks. 11.3.3 gives the capability to pass sessions so a taskbot could be made for each excel sheet and re-used throughout the slides.*

	Actuals	Flash	Fcst 8	AOP	Prior Year
Net Revenue	408	380	770	648	763
Gross Profit	549	615	528	832	535
SG&A	2	612	4	606	157
EBITDA	112	594	240	568	225
Operating Income	661	451	570	279	736
Earnings before Taxes	126	5	416	421	182
Net Income (pre-tax)	180	636	934	585	393

Key Financials

- *SlideBot_Template activates PowerPoint and uses [page down] to navigate to the destination slide.*

Comment: ***** Navigates down one slide per [PAGE DOWN] input. Difference between current slide and destination slide = count of [Page Down] *****

Comment: <<<<< Page down to destination slide >>>>>

Keystrokes: [PAGE DOWN][PAGE DOWN] in "*PowerPoint*" with delay: 200 ms

Comment: --
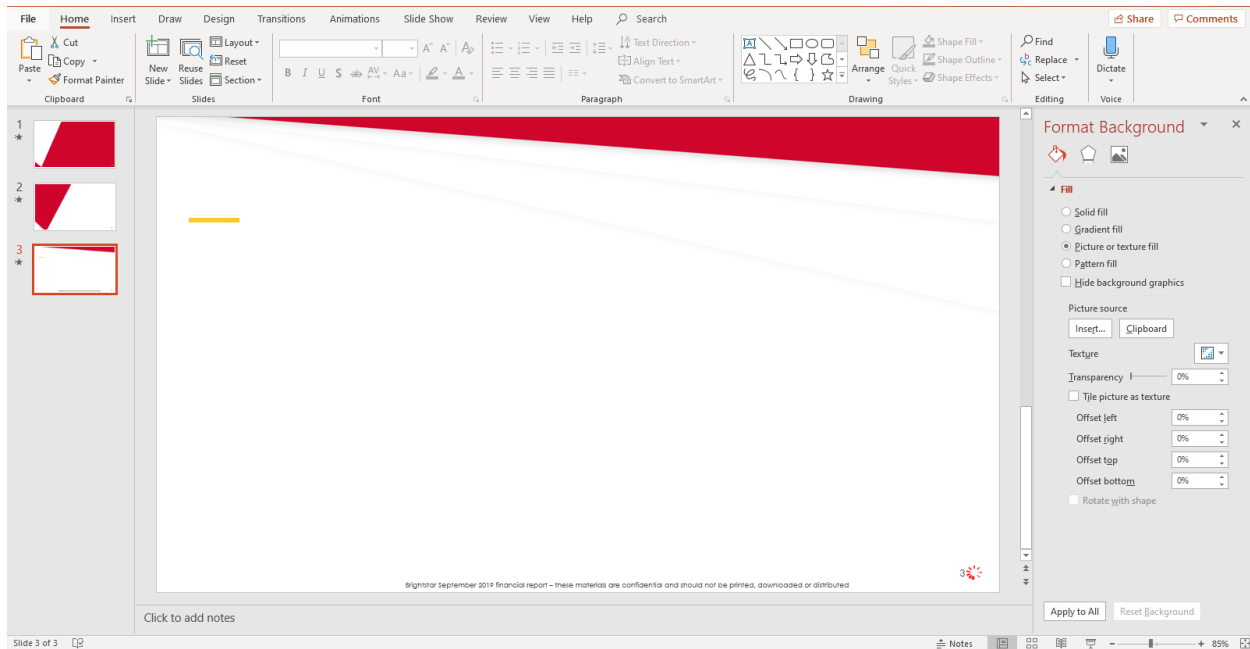
- *SlideBot_Template then activates the established Excel session and user selects a corner cell (H11) of the chart to be fetched and uses keystrokes to highlight & copy.*

```
Comment: ***** If fetching an image, use mouseclicks or object cloning to select & copy *****
Comment: <<<<< Fetch chart/table >>>>>
Excel: Go to cell "H11". Session: slide_3
Delay: (100 ms)
Keystrokes: [CTRL DOWN][SHIFT DOWN][LEFT ARROW][UP ARROW][CTRL UP][SHIFT UP] in "*Excel*" with delay: 100 ms
Delay: (100 ms)
Keystrokes: [CTRL DOWN]c[CTRL UP] in "*Excel*" with delay: 100 ms
Comment: ----------------------------------------------------------------------------
```

| File | Home | Insert | Draw | Page Layout | Formulas | Data | Review | View | Developer | Help | Search |

H11 = 393

	A	B	C	D	E	F	G	H	I	J	K	L
1												
2												
3												
4				Actuals	Flash	Fcst 8	AOP	Prior Year				
5			Net Revenue	408	380	770	648	763				
6			Gross Profit	549	615	528	832	535				
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11			Net Income (pre-tax)	180	636	934	585	393				
12												
13												
14												

Paste_Cell_Range is called if a range of cells is being pasted. This task pastes as an Enhanced Metafile

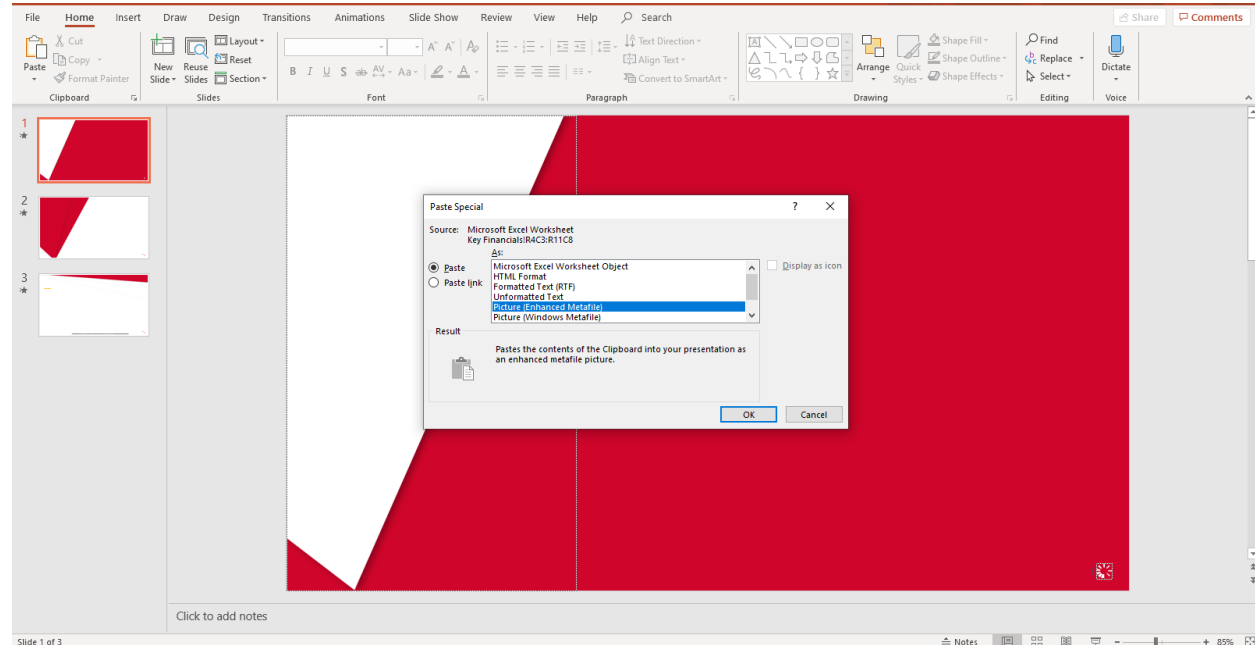|		
1		Variable Operation: Paste_Cell_Range.atmx To $vTaskName$
2		Begin Error Handling; Action: Stop Task; Options: Take Snapshot, Log to File, Variable Assignment, Task Status: Fail
3		Activate Window: "*PowerPoint*"
4		Wait for Window to Open ("*PowerPoint*") (Wait up to 5 seconds - For Window to Open)
5		Maximize Window: "*PowerPoint*"
6		Delay: (200 ms)
7		Keystrokes: [CTRL DOWN][ALT DOWN]v[CTRL UP][ALT UP] in "*PowerPoint*" with delay: 100 ms
8		Delay: (200 ms)
9		Select Item by Text from List Box in Window: "*Paste Special*" Text: "Picture (Enhanced Metafile)"
10		End Error Handling

Select_Formatting selects the formatting tab in the PowerPoint ribbon

1		Comment: ----- Select Formatting -----
2		Variable Operation: Select_Formatting.atmx To $vTaskName$
3	⚠	Begin Error Handling; Action: Stop Task; Options: Take Snapshot, Log to File, Variable Assignment, Task Status: Fail
4	⏳	Delay: (100 ms)
5		Click Text from Page Tab in Window: "*PowerPoint*" Text: "Format"
6	⏳	Delay: (100 ms)
7		Click On Command Button: "Size and Position..." in Window: "*PowerPoint*"
8	⚠	End Error Handling

As part of the same task the bot selects the 'Size and Position' button circled in the top right below

The bot checks if the position tab is expanded, if not, it expands it. This will not have to be re-expanded in following slides, but it must be done on the first slide.

40	Comment: ----- Checks if the 'Position' tab is expanded within formatting options, if not, it expands it so you can input vertical/horizontal position -----
41	Delay: (100 ms)
42	Left Mouse Click on Get Text in Window: "*PowerPoint*" Text:"Position"
43	If Windows Object (Graphics) Properties in the window "*PowerPoint*"
44	Left Mouse Click on Get Text in Window: "*PowerPoint*" Text:"Position"
45	End If
46	Comment: --

The bot sets status of 'Lock Aspect Ratio' checkbox to unchecked. If you wish to leave aspect ratio locked, just delete the relevant code in slide_template.atmx, the comments call out where it presses this button. If locking aspect ratio, change only one dimension (height or width).
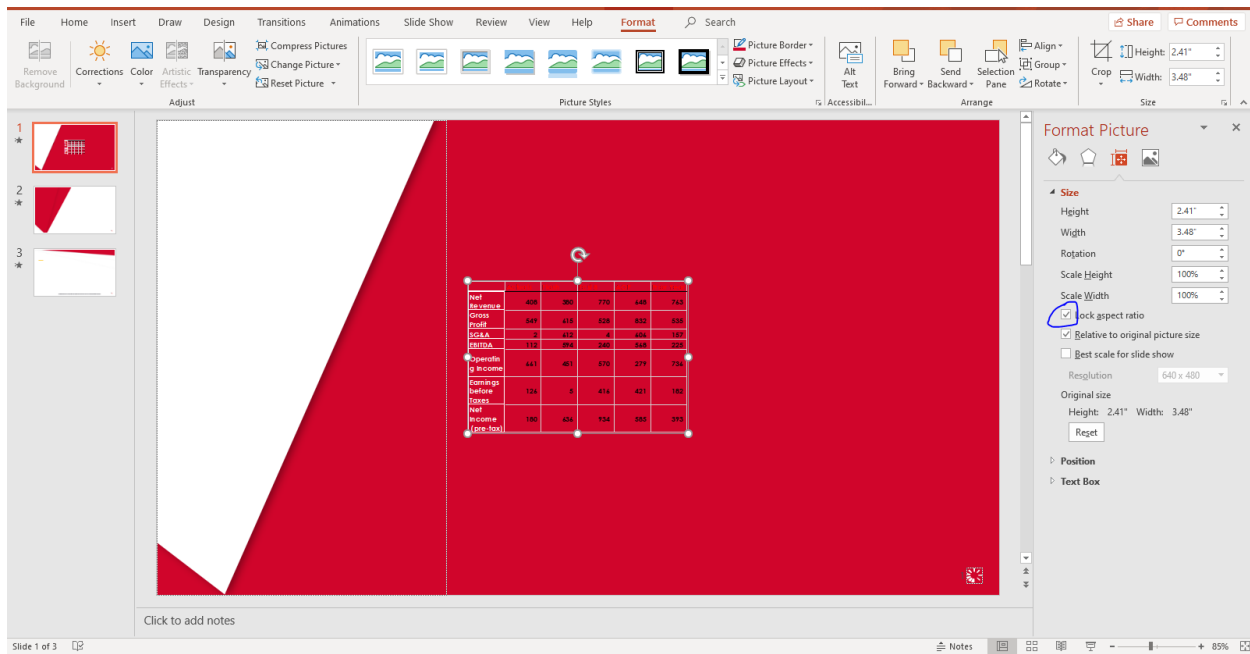
The bot then clears and sets the height, width, horizontal position, and vertical position. This is where the user must manually input the values for keystrokes to enter in these text boxes.

58	Comment: <<<<< Input height >>>>>
59	Delay: (100 ms)
60	Keystrokes: 5.08"[ENTER] in "*PowerPoint*"
61	Comment: ---
62	Comment: ---
63	Comment: ----- Clears existing value for width -----
64	Left Mouse Click on Get Text in Window: "*PowerPoint*" Text:"Width"
65	Keystrokes: [CTRL DOWN]a[CTRL UP][DELETE] in "*PowerPoint*"
66	Comment: <<<<< Input width >>>>>
67	Delay: (100 ms)
68	Keystrokes: 4.13"[ENTER] in "*PowerPoint*"
69	Comment: ---
70	Comment: ---
71	Comment: Clears existing value for horizontal position
72	Left Mouse Click on Get Text in Window: "*PowerPoint*" Text:"Horizontal position"
73	Keystrokes: [CTRL DOWN]a[CTRL UP][DELETE] in "*PowerPoint*"
74	Comment: <<<<< Input horizontal position >>>>>
75	Delay: (100 ms)
76	Keystrokes: .34"[ENTER] in "*PowerPoint*"
77	Comment: ---
78	Comment: ---
79	Comment: Clears existing value for vertical position
80	Left Mouse Click on Get Text in Window: "*PowerPoint*" Text:"Vertical position"
81	Keystrokes: [CTRL DOWN]a[CTRL UP][DELETE] in "*PowerPoint*"
82	Comment: <<<<< Input vertical position >>>>>
83	Delay: (100 ms)
84	Keystrokes: 1.78"[ENTER] in "*PowerPoint*"
85	End Error Handling

1.2   Common Use cases

Instructions: Generic use cases where this Bot or Digital worker can be reused with.

This bot was made for a monthly deck which is 65 slides, each slide having between 1-6 charts/tables/graphs. Some of these charts are images, some are a range of cells, and the bot has the capability to handle both scenarios.

Requirements & Prerequisites

1.3   System Requirements

Instructions: Provide Minimum Hardware Configuration requirement needed for successful execution.

1.4   Prerequisites

Instructions: Provide Software along with Version needed for bots/DWs Execution

1.5   Security Measures

Instructions: Provide Security Measures which the user needs to follow while connecting to the 3rd Party Services and on the machine where the bot would be deployed.

1.6   Disclaimers

Instructions: If applicable, identify any cautions or warnings that the user should know before using the system (e.g., noted prohibitions, unauthorized access etc.)

2.   Getting Started

2.1   Skill Matrix

Instruction: Briefly describe the Skill Matrix supported by Table or Workflow which explains the mapping relationship among Taskbot, MetaBot, Scripts used.

2.2   Installation Hierarchy

Instructions: Describe the installation hierarchy and the folder structure generated by a bot post installation. The hierarchy must contain all the supportable file, scripts & information the package is supposed to have.

2.3   Quick Start

Instructions: Guide the different users to quickly setup and configure the Bot or Digital worker with step by step representation supported by screenshots in a non-technical manner.

2.3.1   Setup

Instructions: Provide a step by step guide for setting up external accesses required. If applicable, include how to generate an API Key, Token as well as the actions a user must take to setup and access an external application required as a part of the process.

2.3.2   Configuration

Instructions: Provide a step by step guide for configuration of parameters from either an external file (text) or from the Credential Vault for sensitive parameter. If applicable, include how to create Locker & credential attributes in credential vault.

Provide configurable variable list with the details as mentioned in the example

o   *For Credential Vault –*

Describe the setting up of the Locker and Credentials and describe the individual properties in a table format as below

Locker Name	Credentials Name	Attribute Name	Value
Locker_Slack	Credential_Slack	URL	URL of the slack account

o   *For External File –*

INPUT VARIABLES: Input Variables to be mentioned in this Table				
Variable Name	**Type**	**Mandatory**	**Purpose**	**Example Input**
vInputFileName	Text/Number	Yes	File Name for the template from which Bot reads the value from. Format – Filename. Extension	Provide an example of the Input data
vErrFlag	value		Used in error handling	
vErrorFolderLogs	text		holds the path to the error folder	
vErrorFolderSnapshots	Text		holds the path to the snapshots folder	
vProjectFolderPath	Text		holds the path to the project folder	
vTaskName	Text		manually assigned on each task to identify the task name in the error log	
vWorkBookName	Text		Retrieved from the Excel window title	Example.xlsx – Excel
vTrimmedWorkbookName	Text		A string manipulation of vWorkBookName to remove -Excel	Example.xlsx

OUTPUT VARIABLES: Output Variables to be mentioned in this Table.				
Variable Name	**Type**	**Mandatory**	**Purpose**	**Example Output**
vOutputFileName	Text/Number	Yes	File Name for the template from which Bot reads the value from. Format – Filename.	Provide an example of the Input data

			Extension	

Extension