



PPTX-Python Bot

Readme

Version 1.0

10/03/2023



Table of Contents

1. Introduction	3
1.1 Overview.....	3
1.2 Use Cases	3
2. Requirements & Prerequisites	4
2.1 System Requirements.....	4
2.2 Prerequisites.....	4
3. Getting Started	5
3.1 Quick Start.....	5
3.1.1 Setup.....	5
3.1.2 Configuration	5
4. Support & FAQs	15
4.1 Support	15
4.2 FAQs.....	15
Appendix A: Record of Changes	16
Appendix B: References	17



1. Introduction

This document contains all essential information for the user to make full use of this A360 *PPTX-Python Bot*. It includes a description of the functions and capabilities and step-by-step procedures for setup & configuration of the *PPTX-Python Bot*.

1.1 Overview

This bot uses **Python-PPTX** library (**API**) to perform operations like creating and updating PowerPoint presentation(.pptx) files. This includes adding shapes, textboxes, tables, paragraphs, pictures, videos, and lot more.

For example: If you want to add a shape to a slide, use the “add_shape” function (**img1**) and pass the parameters in sequence as shown in (**img2**).

Python script: Execute function

Executes a Python function

Required bot agent version: 20.11 or above

Python session
Default (x)

The name you gave the Python session when you opened it.

Enter name of function to be executed
add_shape (x)
e.g. AddNumbers

Arguments to the function (optional)
lst_AddShapeArgs (x)
Supports 0 or 1 argument

Assign the output to variable (optional)
pythonFunctionOutput (x)

img1

Edit variable [Cancel] [Apply]

Type	Subtype
List	String

Name: lst_AddShapeArgs Description optional: An ordered group of items
Maximum = 25 characters Maximum = 255 characters

Use as input
 Use as output
 Constant (read-only)

Default value (optional)

Value at 0	Value at 1	Value at 2	Value at 3	Value at 4	Value at 5
23	1	1	1	3	3

+

Adds a new shape to the slide.
Input: args (slide index, shape value, left, top, width, height) (List) ;
Output: success/error details (String) ;
Note: Index starts from 1

img2

1.2 Use cases

The key use cases include:

- A typical use would be generating a customized PowerPoint presentation from database content, downloadable by clicking a link in a web application.
- To automate production of presentation-ready engineering status reports based on information held in a work management system.
- It could also be used for making bulk updates to a library of presentations or simply to automate the production of a slide or two that would be tedious to get right by hand.



2. Requirements & Prerequisites

2.1 System Requirements

[Enterprise A360 \(Cloud deployed\) and Community Edition device requirements.](#)

Review the machine hardware specifications, operating system versions, and browser types supported by Automation Anywhere Enterprise for creating and running bots and command packages as an Enterprise A360 (Cloud deployed) or Community Edition user on your local machine.

2.2 Prerequisites

Ensure the following requirements are met before using the PPTX-Python Bot:

- The appropriate version of Python is installed on the device on which you want to execute the script.

Note: Python versions 2.x and 3.x are supported.

- The "PATH" environment variable is updated to the path of the Python folder.

To verify if the Python environment variable is set correctly, enter Python in the command prompt. If it returns the Python version that is installed, the path environment is set up correctly.



3. Getting Started

3.1 Quick Start

3.1.1 Setup

Install Python-PPTX library and the other dependent libraries by navigating to the command prompt and executing the following statements “**pip install python-pptx**”, “**pip install pytz**”, and “**pip install regex**”.

Note: Skip the above steps if you have already installed those libraries.

3.1.2 Configuration and Use

For Bots:

INPUT VARIABLES:				
Variable Name	Type	Mandatory	Purpose	Example Input
str_InputFilePath	String	Yes	PPTX input file name Format – Filepath/Filename. Extension	“C:\Users\User1\Downloads\PPT X Testing\InputPresentationFile.ppt x”
str_OutputFilePath	String	Yes	PPTX output file name Format – Filepath/Filename. Extension	“C:\Users\User1\Downloads\PPT X Testing\OutputPresentationFile.p ptx”
str_SlideNumber	String	Yes	Slide number to get total number of shapes Note: Index starts from 1	“1”
lst_MoveSlideArgs	List (String)	Yes	List of arguments to execute “move_slide” function in PPT Note: Index starts from 1	[“2”, “3”] Note: Where the value “2” is stored the list index 0 and “3” is stored in the list index 1. The args should be in the following sequence (from_index, to_index)
str_DeleteSlideIndex	String	Yes	Index of the slide to delete in PPT Note: Index starts from 1	“3”
str_SlideLayoutName	String	Yes	Slide layout name to	“Blank”



			<p>remove from PPT</p> <p>Note: To get the slide layout names, use "get_slide_layouts" function</p>	
str_SlideLayoutToAppend	String	Yes	<p>Slide layout name to append a new slide in PPT</p> <p>Note: To get the slide layout names, use "get_slide_layouts" function</p>	"Blank"
Ist_AddSlideTitleArgs	List (String)	Yes	<p>List of arguments to execute "add_slide_title" function in PPT</p> <p>Note: Index starts from 1</p>	<p>["Title of the slide", "3"]</p> <p>Note: The args should be in the following sequence (title, slide_index)</p>
Ist_AddSlideSubtitleArgs	List (String)	Yes	<p>List of arguments to execute "add_slide_subtitle" function in PPT</p> <p>Note: Index starts from 1</p>	<p>["Subtitle of the slide", "3"]</p> <p>Note: The args should be in the following sequence (subtitle, slide_index)</p>
Ist_ReplaceTextArgs	List (String)	Yes	<p>List of arguments to execute "replace_text" function in PPT</p> <p>Note: Index starts from 1</p>	<p>["Keyword", "Text to find", "Text to replace", "3"]</p> <p>Note: The args should be in the following sequence (keyword, text_to_find, text_to_replace, slide_index)</p>
str_ExtractTextArgs	String	Yes	<p>Slide number to extract text from PPT</p> <p>Note: Index starts from 1</p>	"3"
Ist_AddShapeArgs	List (String)	Yes	<p>List of arguments to execute "add_shape" function in PPT</p> <p>Note: Index starts from 1.</p> <p>To get the shape value, use "get_shapes_list" function</p> <p>Ex: Rectangle = 1</p>	<p>["3", "1", "1.5", "1.5", "3", "5.5"]</p> <p>Note: The args should be in the following sequence (slide index, shape value, left, top, width, height)</p>
Ist_AddTextToShapeArgs	List (String)	Yes	<p>List of arguments to execute "add_text_to_shape" function in PPT</p>	<p>["Hello World", "3", "1"]</p> <p>Note: The args should be in the following sequence (text, slide index, shape index)</p>



			<i>Note: Index starts from 1.</i>	
Ist_NoFillShapeArgs	List (String)	Yes	List of arguments to execute "no_fill_shape" function in PPT <i>Note: Index starts from 1.</i>	["3", "1"] <i>Note: The args should be in the following sequence (slide_index, shape_index)</i>
Ist_FillShapeArgs	List (String)	Yes	List of arguments to execute "fill_shape" function in PPT <i>Note: Index starts from 1.</i>	["3", "1", "0,0,255"] <i>Note: The args should be in the following sequence (slide_index, shape_index, RGB)</i>
Ist_NoFillBorderOfShapeArgs	List (String)	Yes	List of arguments to execute "no_fill_border_of_shape" function in PPT <i>Note: Index starts from 1.</i>	["3", "1"] <i>Note: The args should be in the following sequence (slide_index, shape_index)</i>
Ist_FillBorderOfShapeArgs	List (String)	Yes	List of arguments to execute "fill_border_of_shape" function in PPT <i>Note: Index starts from 1.</i>	["3", "1", "0,0,255"] <i>Note: The args should be in the following sequence (slide_index, shape_index, RGB)</i>
Ist_AddTextBoxArgs	List (String)	Yes	List of arguments to execute "add_textbox" function in PPT <i>Note: Index starts from 1.</i>	["3", "1", "1", "5.5", "3"] <i>Note: The args should be in the following sequence (slide_index, left, top, width, height)</i>
Ist_AddTextToTextFrameArgs	List (String)	Yes	List of arguments to execute "add_text_to_text_frame" function in PPT <i>Note: Index starts from 1.</i>	["Hello World", "3", "1"] <i>Note: The args should be in the following sequence (text, slide_index, shape_index)</i>
Ist_AddParagraphArgs	List (String)	Yes	List of arguments to execute "add_paragraph" function in PPT	["3", "1"] <i>Note: The args should be in the following sequence (slide_index, shape_index)</i>



			<i>Note: Index starts from 1.</i>	
Ist_AddTextToParagraphArgs	List (String)	Yes	List of arguments to execute "add_text_to_paragraph" function in PPT <i>Note: Index starts from 1.</i>	["This is a paragraph text", "3", "1", "2"] <i>Note: The args should be in the following sequence (text, slide_index, shape_index, paragraph_index)</i>
Ist_SetFontStyleToParagraphArgs	List (String)	Yes	List of arguments to execute "set_font_style_to_paragraph" function in PPT <i>Note: Index starts from 1.</i> If bold = 1, it will set the paragraph to bold. If it is 0, then it will remove bold formatting.	["3", "1", "2", "18", "0,0,255", "1"] <i>Note: The args should be in the following sequence (slide_index, shape_index, paragraph_index, font_size, font_color_rgb, bold)</i>
Ist_AddTableToSlides	List (String)	Yes	List of arguments to execute "add_table_to_slide" function in PPT <i>Note: Index starts from 1.</i> To get the table styles, use "get_table_styles" function	["3", "Light Style 1 - Accent 1", "5", "3", "1", "1", "3", "3"] <i>Note: The args should be in the following sequence (slide_index, table style, rows, cols, left, top, width, height)</i>
Ist_AddTableValuesArgs	List (String)	Yes	List of arguments to execute "add_table_values" function in PPT <i>Note: Index starts from 1.</i>	["3", "1", "1,3,1", "Name, Mobile, Address", "[Name1, Mobile1, Address1]; [Name2, Mobile2, Address2]"] <i>Note: The args should be in the following sequence (slide_index, shape_index, column_width_list (separated by comma), column_headers (separated by comma), rows (ex: "[row(0,0),row(0,1)]; [row[1,0],row[1,1]]")</i>
Ist_AddPictureArgs	List	Yes	List of arguments to execute "add_picture" function in PPT	["C:\Users\user1\OneDrive\Pictur



	(String)		Note: Index starts from 1.	es\Saved Pictures\image.jpeg", "3", "1", "1", "5", "5"] Note: The args should be in the following sequence (img_path, slide_index, left, top, width, height)
Ist_AddVideoArgs	List (String)	Yes	List of arguments to execute "add_video" function in PPT Note: Index starts from 1.	["3", "C:\Users\user1\Videos\Captures\video.mp4", "C:\Users\user1\OneDrive\Pictures\Saved Pictures\image.jpeg", "1", "1", "12", "8", video/unknown"] Note: The args should be in the following sequence (slide_index, video_file_path, poster_frame_image_path, left, top, width, height, mime_type)

OUTPUT VARIABLES: Output Variables to be mentioned in this Table.				
Variable Name	Type	Mandatory	Purpose	Example Output
pythonFunctionOutput	String	No	Stores the value returned from executing python function	"Success" / "Error Details"
str_FileInfo	String	Yes	Returns the file info by executing "get_file_info" function	{"Author": "Murali", "Language": "English", "Last modified by": "Murali", "Created date time": "03/30/2023, 23:12:36", "Modified date time": "03/30/2023, 23:12:36"}"
str_TotalNumberOfSlides	String	Yes	Will return the total number of slides in PPT by executing "get_total_number_of_slides" function	"24"
str_TotalNumberOfShapesInSlide	String	Yes	Will return the total number of shapes in a slide in PPT by executing "get_total_	"5"



			<i>number_of_shapes</i> function	
str_SlideLayouts	<i>String</i>	<i>Yes</i>	Returns the list of slide layouts available in PPT by executing "get_slide_layouts" function	<i>["Blank", "Title and Content",....]</i>
str_ExtractedText	<i>String</i>	<i>Yes</i>	Returns the extracted text from the given slide in PPT by executing "extract_text" function	<i>"Extracted Text"</i>
str_VideoFormats	<i>String</i>	<i>Yes</i>	Returns the list of available video formats supported in PPT by executing "get_video_formats" function	<i>["video/unknown","video/mp4",...]"</i> <i>Note: This value is used for the mime_type in "add_video" function</i>
str_TableStyles	<i>String</i>	<i>Yes</i>	Returns the list of available table styles by executing "get_table_styles" function	<i>["Light Style 1 - Accent 1",...]"</i> <i>Note: This value is used for the table style in "add_table_to_slide" function</i>
errorMessage	<i>String</i>	<i>Yes</i>	Returns the last error description	<i>"Value cannot be divided by zero"</i>
errorLineNumber	<i>Number</i>	<i>Yes</i>	Returns the last error line number	<i>2</i>

About functions and properties:

1. open_ppt:

Open the ppt file and create the session.

Input: input_file_path (String)

Output: success/error details (String)

2. create_new_ppt:

Creates the new PPT file and stores the session.

Input: NOT REQUIRED

Output: success/error details (String)

3. get_total_number_of_slides:

Get total number of slides in PPT.

Input: NOT REQUIRED



Output: Total slides count (String)

4. get_total_number_of_shapes:

Get total number of shapes in the given slide.

Input: slide_index (String)

Output: Total shapes (String)

Note: Index starts from 1

5. get_file_info:

Returns the following file info - Author, Language, Last modified by, Created date time, Modified date time.

Input: NOT REQUIRED

Output: File info (String)

6. move_slide:

Move slide position in the PPT.

Input: args (from_index, to_index) (List)

Output: success / error details (String)

Note: Index starts from 1

7. delete_slide:

Delete the slide located on the given index in PPT.

Input: slide_index (String)

Output: success/error details (String)

Note: Index starts from 1

8. get_slide_layouts:

Get the slide layout list from PPT.

Input: NOT REQUIRED

Output: layout list/error details (String)

9. remove_slide_layout:

Remove slide layout in PPT.

Input: slide_layout_name (String)

Output: success/error details (String)

10. append_slide:

Append slide function is for adding a new slide at the end of the Presentation file.

Input: slide_layout_name (String)

Output: success/error details (String)

11. add_slide_title:

Add slide title in the given slide.

Input: args (title, slide_index) (List)

Output: success/error details (String)

Note: Index starts from 1

12. add_slide_subtitle:



Add slide subtitle in the given slide.

Input: args (subtitle, slide_index) (List)

Output: success/error details (String)

Note: Index starts from 1

13. replace_text:

Replace text function is used for replacing text within the Presentation file.

Input: args (keyword, text_to_find, text_to_replace, slide_index) (List)

Output: success/error details (String)

Note: Index starts from 1

14. extract_text:

Extract text from the given slide.

Input: slide_index (String)

Output: success/error details (String)

Note: Index starts from 1

15. add_shape:

Adds a new shape to the slide.

Input: args (slide index, shape value, left, top, width, height) (List)

Output: success/error details (String)

Note: Index starts from 1

16. add_text_to_shape:

Add text in the shape.

Input: args (text, slide index, shape index) (List)

Output: success/error details (String)

Note: Index starts from 1

17. no_fill_shape:

Apply no fill background in the shape object.

Input: args (slide_index, shape_index) (List)

Output: success/error details (String)

Note: Index starts from 1

18. fill_shape:

Fill the background in the shape object.

Input: args (slide_index, shape_index, RGB) (List)

Output: success/error details (String)

Note: Index starts from 1

19. no_fill_border_of_shape:

Apply no fill border in the shape object.

Input: args (slide_index, shape_index) (List)

Output: success/error details (String)



Note: Index starts from 1

20. fill_border_of_shape:

Fill the border in the shape object.

Input: args (slide_index, shape_index, (RGB) (List)

Output: success/error details (String)

Note: Index starts from 1

21. add_textbox:

Add a textbox in the given slide.

Input: args (slide_index, left, top, width, height) (List)

Output: success/error details (String)

Note: Index starts from 1

22. add_text_to_text_frame:

Add text to the text frame object.

Input: args (text, slide_index, shape_index) (List)

Output: success/error details (String)

Note: Index starts from 1

23. add_paragraph:

Add a paragraph in the given shape.

Input: args (slide_index, shape_index) (List)

Output: success/error details (String)

Note: Index starts from 1

24. add_text_to_paragraph:

Add text to the paragraph in the given shape.

Input: args (text, slide_index, shape_index, paragraph_index) (List)

Output: success/error details (String)

Note: Index starts from 1

25. set_font_style_to_paragraph:

Set font style to the paragraph in the given shape.

Input: args (slide_index, shape_index, paragraph_index, font_size, font_color_rgb, bold) (List)

Output: success/error details (String)

Note: Index starts from 1

26. get_table_styles:

Get all available table styles.

Input: NOT REQUIRED

Output: Table styles (List)

27. add_table_to_slide:

Add a table in the given slide.



Input: args (slide_index, style, rows, cols, left, top, width, height) (List)
Output: success/error details (String)

Note: Index starts from 1

28. add_table_values:

Add table values to the existing or newly created table.

Input: args (slide_index, shape_index, column_width_list (separated by comma), column_headers (separated by comma), rows (ex: "[row(0,0), row(0,1)];[row[1,0],row[1,1]]")) (List)
Output: success/error details (String)

Note: Index starts from 1

29. add_picture:

Add a picture to the given slide.

Input: args (img_path, slide_index, left, top, width, height) (List)
Output: success/error details (String)

Note: Index starts from 1

30. get_video_formats:

Get available video formats.

Input: NOT REQUIRED
Output: Video format (String)

31. add_video:

Add video in the given slide.

Input: args (slide_index, video_file_path, poster_frame_image_path, left, top, width, height, mime_type) (List)
Output: success/error details (String)

Note: Index starts from 1

32. save_ppt:

Save the PPT file.

Input: output_file_path (String)
Output: success/error details (String)

Note: Index starts from 1



4. Support & FAQs

4.1 Support

Free bots are not officially supported. You can get access to Community Support through the following channels:

- You can get access to Community Support, connecting with other Automation Anywhere customers and developers on [APeople](#) – the [Bot Building Forum](#), the [Bot Store Support Forum](#), or the [Developers Everywhere Group](#).
- Automation Anywhere also provides a [Product Documentation portal](#) which can be accessed for more information about our products and guidance on [Enterprise A2019](#).

4.2 FAQs

For questions relating to Enterprise A2019: See the [Enterprise A2019 FAQs](#).



Appendix A: Record of Changes

No.	Version Number	Date of Change	Author	Notes



Appendix B: References

No.	Topic	Reference Link
1	Overview of Enterprise A360	Click here
2	Guidance: Building basic A360 bots	Click here
3	Guidance: Building A360 action packages	Click here
4	APeople Community Forum	Click here
5	Automation Anywhere University	Click here
6	Python-PPTX Tutorial	Click here
7	A360 Python Package	Click here