

# VDC R&D Script

- 1) Download Python 3.7 installer and open the .exe file.
  - a. DO NOT click install right after opening the .exe file. Check step 2 first.
  - b. <https://www.python.org/downloads/>



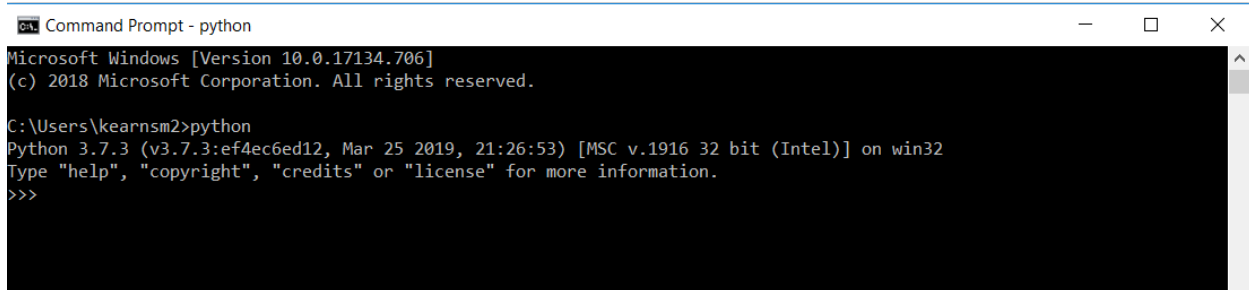
- 2) During installation, make sure to click the box labelled “Add Python 3.7 to PATH”



- 3) Click the “Install Now” option. If prompted to disable the path limit, disable it.
- 4) After that is installed, open the command prompt by typing “cmd” in the windows search bar on the bottom left of your screen.

5) In the command prompt, type “python”.

- a. This will check to see if python is installed properly. The response should look like the image below.



```
Command Prompt - python
Microsoft Windows [Version 10.0.17134.706]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\kearnsm2>python
Python 3.7.3 (v3.7.3:ef4ec6ed12, Mar 25 2019, 21:26:53) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

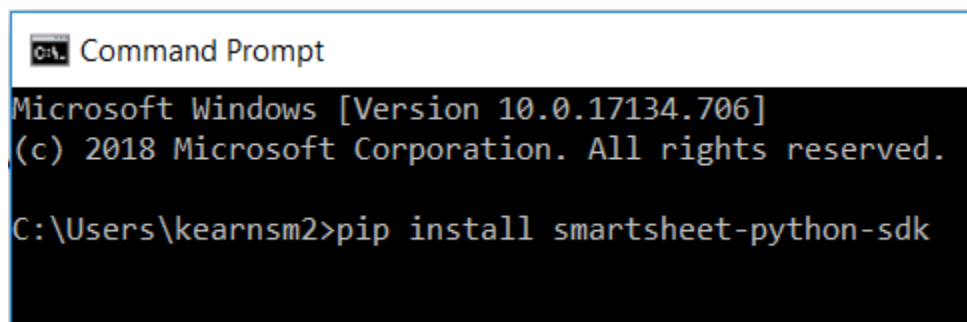
6) Close the command prompt

7) The program requires the following packages:

- a. smartsheet-python-sdk
- b. pysimplegui
- c. xlwt

8) Use “pip” to install the required packages:

- a. In command prompt type “pip install smartsheet-python-sdk” and hit enter to install.
- b. After that is installed, type “pip install pysimplegui” and hit enter.
- c. Do the exact same for xlwt. Type “pip install xlwt” and press enter.
- d. These commands will output information on the download and install of the package.
- e. See Below for examples of what the inputs and outputs of the Command Prompt should look like.



```
Command Prompt
Microsoft Windows [Version 10.0.17134.706]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\kearnsm2>pip install smartsheet-python-sdk
```

Pip install using Command Prompt

```
Command Prompt
Microsoft Windows [Version 10.0.17134.765]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\kearnsm2>pip install pysimplegui
Collecting pysimplegui
  Downloading https://files.pythonhosted.org/packages/e5/28/8a9269e95cc9f4fc44c6a4cd61716521756c290ec8a33a816dfcd3c809df/PySimpleGUI-3.36.0-py3-none-any.whl (144kB)
    |#####| 153kB 1.7MB/s
Installing collected packages: pysimplegui
Successfully installed pysimplegui-3.36.0

C:\Users\kearnsm2>
```

Pip install of PySimpleGUI. The only user input is “pip install pysimplegui”, everything else is printed by the Command Prompt

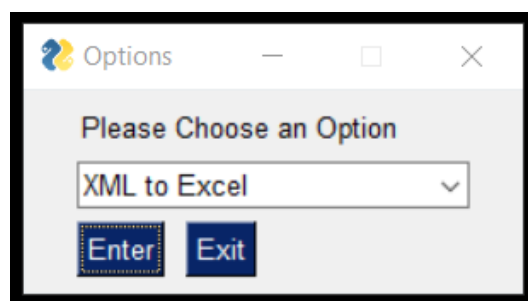
```
Command Prompt
Microsoft Windows [Version 10.0.17134.765]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\kearnsm2>pip install Smartsheet_Python_SDK
Requirement already satisfied: Smartsheet_Python_SDK in c:\users\kearnsm2\appdata\local\programs\python\python37-32\lib\site-packages (2.68.0)
Requirement already satisfied: six>=1.9 in c:\users\kearnsm2\appdata\local\programs\python\python37-32\lib\site-packages (from Smartsheet_Python_SDK) (1.12.0)
Requirement already satisfied: certifi in c:\users\kearnsm2\appdata\local\programs\python\python37-32\lib\site-packages (from Smartsheet_Python_SDK) (2019.3.9)
Requirement already satisfied: requests-toolbelt in c:\users\kearnsm2\appdata\local\programs\python\python37-32\lib\site-packages (from Smartsheet_Python_SDK) (0.9.1)
Requirement already satisfied: requests in c:\users\kearnsm2\appdata\local\programs\python\python37-32\lib\site-packages (from Smartsheet_Python_SDK) (2.21.0)
Requirement already satisfied: python-dateutil in c:\users\kearnsm2\appdata\local\programs\python\python37-32\lib\site-packages (from Smartsheet_Python_SDK) (2.8.0)
Requirement already satisfied: chardet<3.1.0,>=3.0.2 in c:\users\kearnsm2\appdata\local\programs\python\python37-32\lib\site-packages (from requests->Smartsheet_Python_SDK) (3.0.4)
Requirement already satisfied: urllib3<1.25,>=1.21.1 in c:\users\kearnsm2\appdata\local\programs\python\python37-32\lib\site-packages (from requests->Smartsheet_Python_SDK) (1.24.3)
Requirement already satisfied: idna<2.9,>=2.5 in c:\users\kearnsm2\appdata\local\programs\python\python37-32\lib\site-packages (from requests->Smartsheet_Python_SDK) (2.8)

C:\Users\kearnsm2>
```

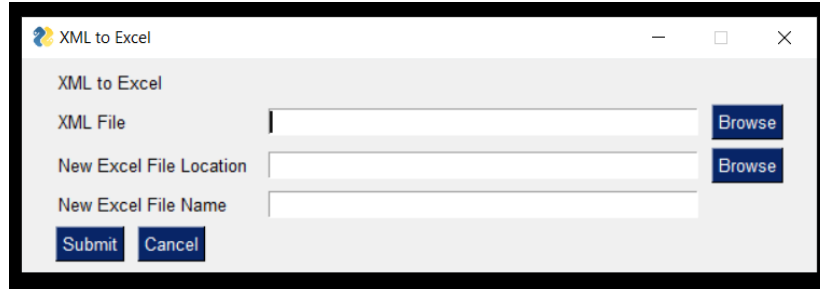
Example of what happens when you already have a package installed. The only thing the user typed here was “pip install Smartsheet-Python-SDK”, everything else is printed by the Command Prompt.

- 9) Download Python script from box.com
  - a. <https://nengvdc.box.com/s/r0s6f9y9xjiiohn744z8nr50wpdvtvqrx>
- 10) Double click on the python script (Should be “VDC R&D Script.pyw”)
  - a. If prompted to choose what to open the file with, select “Python”
- 11) Choose what operation you want to perform



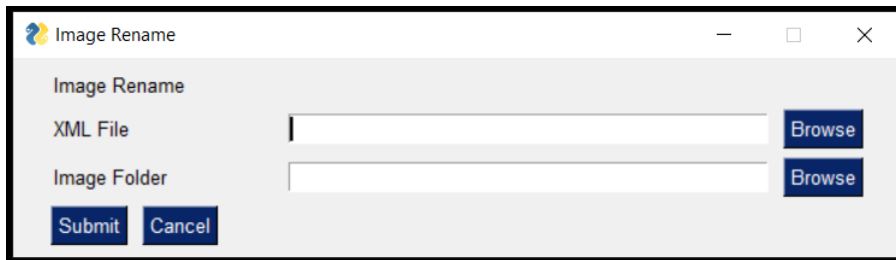
a. XML to Excel

- i. XML File: Use “Browse” button to navigate to the XML File you exported from Navisworks.
- ii. New Excel File Location: Use “Browse” button to choose location of the new Excel file. This Excel file will have the information from your viewpoints in it.
- iii. New Excel File Name: Use the textbox to give a name to your new Excel file. You must name the Excel file.

A screenshot of a software dialog box titled "XML to Excel". It contains three input fields: "XML File", "New Excel File Location", and "New Excel File Name". Each of the first two fields has a "Browse" button to its right. At the bottom left, there are "Submit" and "Cancel" buttons.

b. Image Rename

- i. XML File: Use “Browse” button to select the XML File you exported from Navisworks
- ii. Image Folder: Use “Browse” button to select the folder with the viewpoints report from Navisworks
  1. Be sure to delete the “.html” file from the folder

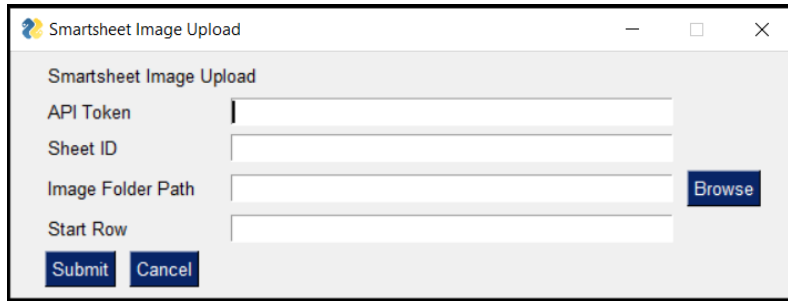
A screenshot of a software dialog box titled "Image Rename". It contains two input fields: "XML File" and "Image Folder". Each field has a "Browse" button to its right. At the bottom left, there are "Submit" and "Cancel" buttons.

c. Smartsheet Image Upload

- i. API Token
  1. Can be created under personal settings on smartsheet website
  2. After generating API Token, be sure to save it somewhere
- ii. Sheet ID
  1. Can be found under the properties section of a sheet
    - a. Click on File >> Properties when viewing a sheet
    - b. Right click on sheet >> Properties
- iii. Image Folder Path: Use the “Browse” button to locate the folder that contains all your exported images from Navisworks. If you did not rename your images, remember to delete the “.html” file before beginning the upload.

iv. Start Row

1. Whatever Row you want your images to begin uploading at
  - a. Each image will have a prefix, showing the row number it is attached to
  - b. All images must be uploaded sequentially



A screenshot of a 'Smartsheet Image Upload' dialog box. The dialog has a title bar with the Smartsheet logo and the text 'Smartsheet Image Upload'. Inside, there are four input fields: 'API Token', 'Sheet ID', 'Image Folder Path', and 'Start Row'. To the right of the 'Image Folder Path' field is a blue 'Browse' button. At the bottom left are two buttons: 'Submit' and 'Cancel'.

Smartsheet Image Upload	
API Token	<input type="text"/>
Sheet ID	<input type="text"/>
Image Folder Path	<input type="text"/> <a href="#">Browse</a>
Start Row	<input type="text"/>
<a href="#">Submit</a> <a href="#">Cancel</a>	