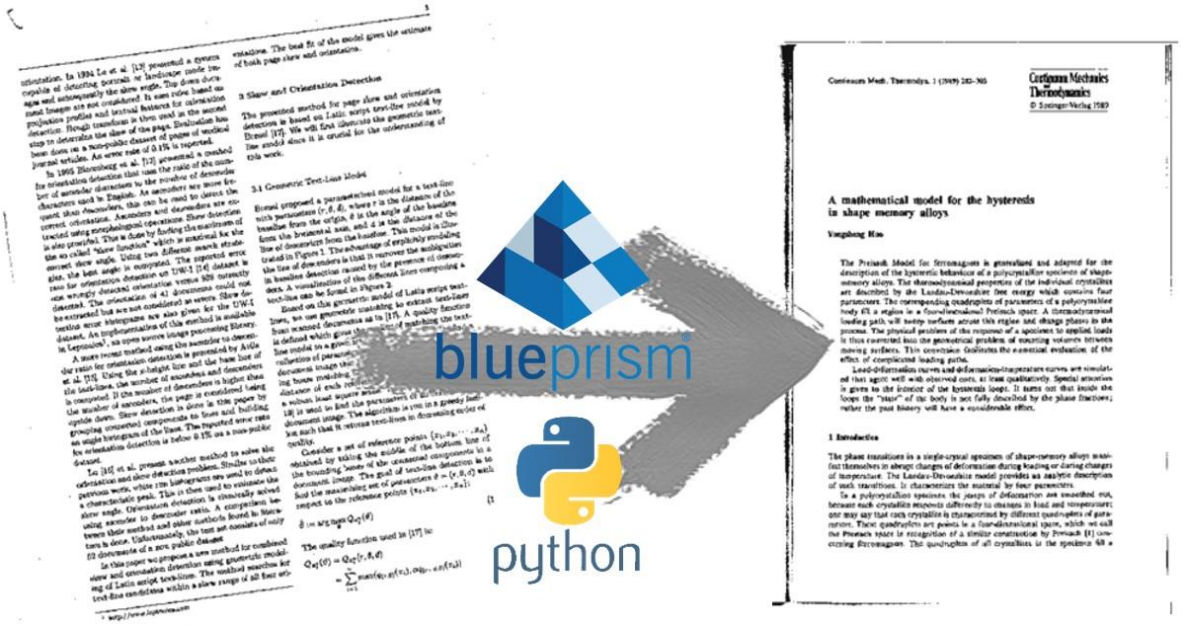
pyImageUtils
(Deskew image)



USER GUIDE

Contents

1. Introduction

This Blue Prism Skill deskew images by using Python (embedded) Web Service. The purpose is pretty simple. If you have any deskewed images like scanned documents this Blue Prism Skill will rotate them automatically to make easier for example the OCR work.

This skill does not work alone. It comes with a separate Web Service developped in Python with the deskew library (describred here https://github.com/sbrunner/deskew). The Blue Prism VBO launch (if needed) this web service on the server side and manages the Web services calls to deskew the requested images.

2. Prerequisites

To make it work you need :

1) Blue Prism 6.8 minimum
2) A working Python 3.6 min environment.

For the Python environment you will have to import/install several libraries :

- numpy (just install by typing in the command line pip install numpy)
- skimage
- deskew
- cv2
- flask
- jsonpickle

For the Blue Prism environment you'll need these vbo:

- Utility - Environment
- Utility – JSON

3. Configuration

The sections below describes how to use the Blue Prism skill.

3.1. The Python side

First you have to install a Python environment. I recommand to install Anaconda (https://www.anaconda.com/) or you can just install Python here : https://www.python.org/
One you've installed Python you'll need ton install additional libraries to make the Web Service work. To do that you can use the pip utility or conda if you're working with anaconda.

These are the required libraries :

- numpy (just install by typing in the command line pip install numpy)
- skimage
- deskew
- cv2
- flask
- jsonpickle

One all these packages have been sucessfully installed you can start by copying the files (into the Github directory) locally: ie. into a Blue Prism Windows server folder.

Now, open the **runWsImageUtils.bat** file

@CALL C:\Users\admin\Anaconda3\Scripts\activate.bat C:\Users\admin\Anaconda3
python "C:\BP Assets\services\imageutils\imageutils.py

You will need to change 2 things :

1. Change the anaconda directory to reflect your Python environment.
2. Change the directory to reflect where you had copied the files previously.

Normally you don't have to change anything in the Python code. I know the exception management and other good developer stuff is not yet done but i would want it simple and easy to adapt and change. SO don't hesitate to make your modification in there (and share it through Github!).

3.2. The Blue Prism side

Firstly you have to ensure that libraries are already imported into Blue Prism before importing this skill :

- Utility - Environment
- Utility – JSON

Note: these vbo are by default provided by Blue Prism (by default in the C:\Program Files\Blue Prism Limited\Blue Prism Automate\VBO). However they're not imported, you have to do the import (or checking if they are already installed) manually by yourself before going further.

Once these vbo are imported successfully, you can import the deskew skill:

1. Open the blue Prism Studio and import the bprelease file. One you've done that you should have two new assets: a web service and a vbo (object).
2. If you have made some change in the Python code like for example changing the URL (or the port) you may need now to do some change in the Blue Prism Web Service definition. Otherwise do not change anything at this stage.
3. Change the Blue Prism environment variable value (for ***pyRunImageUtilsCommandLine***) to refer to the command line path you have copied (in the GitHub bundle this is the ***runWsImageUtils.bat*** file) in the Blue Prism Environment variable settings.
4. Open the vbo named pyImageUtils
5. save it

Note: the Blue Prism export is compatible for Blue Prism 6.8 and later.

3.3. Last check

The new skill should work now. Just run the deskew action (in the pyImageUtils object) and see the generated image (Cf. https://www.datacorner.fr/bp-deskew/)

4. Using the Asset

The Visual Business Object pyImageUtils contains the following actions:

4.1. deskew

Inputs:

Name	Description	Data Type
image	BThe input file to deskew in binary format	binary
targetfile	The filename of the target and deskewed file	text

Outputs:

Name	Description	Data Type
Status	Returns Saved if the work has been done successfully	text

4.2. Run Service

This action is normally called automatically by the deskew action as it launches the web services if this one is not still running.

Inputs:

Name	Description	Data Type
No imput		

Outputs:

Name	Description	Data Type
Running	Returns “Service running” if the service if up and ready	text

5. Support

If you have any troubles in using or deploying this skill just put a comment in here :
https://www.datacorner.fr/bp-deskew/

6. Frequently Asked Questions

7. Changelog