

The results are in! See what nearly 90,000 developers picked as their most loved, dreaded, and desired coding languages and more in the 2019 Developer Survey.

X

Home

PUBLIC

Stack Overflow

Tags

Users

Jobs

Teams  
Q&A for work

Learn More

## How to create PDF files in Python [closed]

[Ask Question](#)

I'm working on a project which takes some images from user and then creates a PDF file which contains all of these images.

156

Is there any way or any tool to do this in Python? E.g. to create a PDF file (or eps, ps) from image1 + image 2 + image 3 -> PDF file?



python pdf

57

share

asked Feb 12 '10 at 15:12

 Stephen T.  
933 ● 2 ● 9 ● 9

closed as off-topic by Yvette Colomb Nov 30 '18 at 11:15

This question appears to be off-topic. The users who voted to close gave this specific reason:

- "Questions asking us to recommend or find a book, tool, software library, tutorial or other off-site resource are off-topic for Stack Overflow as they tend to attract opinionated answers and spam. Instead, describe the problem and what has been done so far to solve it." – Yvette Colomb

If this question can be reworded to fit the rules in the [help center](#), please [edit the question](#).

locked by Yvette Colomb Nov 30 '18 at 11:15

This question's answers are a collaborative effort: if you see something that can be improved, just edit the answer to improve it! *No additional answers can be added here*

[Read more about locked posts here](#).

47 When in doubt, prefix whatever you are searching for by `py : -` – mjt Feb 12 '10 at 15:178 Another SO search trick: `[language or tag] some_keyword asin [python] PDF or [python] PDF image` – mjt Feb 12 '10 at 15:19

For those coming here using matplotlib: <https://stackoverflow.com/questions/17788685/> – David Parks Sep 26 '16 at 19:05 ↗

I downvoted this question because the accepted answer is the wrong answer.... – boatcoder Oct 20 '18 at 17:42

[comments disabled on deleted / locked posts / reviews](#)

### 14 Answers

[active](#) [oldest](#) [votes](#)


I suggest [pyPdf](#). It works really nice. I also wrote a blog post some while ago, you can find it [here](#).

42

share

edited Feb 14 '14 at 11:55

 drevicko  
8,590 ● 9 ● 49 ● 77

answered Feb 12 '10 at 15:16

 Geo  
47.1k ● 93 ● 289 ● 471
7 A current fork of PyPDF2 is located [here](#). – Edmond Burnett Nov 18 '13 at 6:14

79 Note that pypdf only cuts/pastes/etc.. existing pdf content - you can't add text or images to a pdf. – drevicko Feb 14 '14 at 11:57

109 How on earth is this the accepted answer... – bugmenot123 Mar 3 '16 at 12:43

2 pyPDF2 is not for creating new PDF documents, 4cs – michelekl Sep 15 '18 at 14:55

[add a comment](#)



Here is my experience after following the hints on this page.

141

1. pyPDF can't embed images into files. It can only split and merge. (Source: Ctrl+F through its [documentation page](#)) Which is great, but not if you have images that are not already embedded in a PDF.

2. [pyPDF2](#) doesn't seem to have any extra documentation on top of pyPDF.

3. ReportLab is very extensive. ([Userguide](#)) However, with a bit of Ctrl+F and grepping through its source, I got this:

- First, [download the Windows installer](#) and [source](#)
- Then try this on Python command line:

```
from reportlab.pdfgen import canvas
from reportlab.lib.units import inch, cm
c = canvas.Canvas('ex.pdf')
c.drawImage('ar.jpg', 0, 0, 10*cm, 10*cm)
c.showPage()
c.save()
```

All I needed is to get a bunch of images into a PDF, so that I can check how they look and print them. The above is sufficient to achieve that goal.

[ReportLab is great but would benefit from including helloworlds like the above prominently in its](#)

asked 9 years, 2 months ago

viewed 268,250 times

active 4 months ago

## BLOG

 [The 2019 Stack Overflow Developer Survey Results Are In](#)

## Work from anywhere

## Senior Data Scientist

Wallethub  No office location REMOTE

python machine-learning

## Software Developer

Springboard Retail, Inc.  No office location\$75K - \$100K  REMOTE

ruby javascript

## Senior Rails Engineer (100% Remote or Onsite in SF) MyTime Series B SaaS Startup

Source Coders  No office location\$130K - \$165K  REMOTE

ruby-on-rails postgresql

## Senior React Native Engineer: Disruptive Offline Marketing Start-up!

oppizi  Surry Hills, Australia\$A\$80K - \$A\$120K  REMOTE

reactjs react-native

Work remotely - from home or wherever you choose.

[Browse remote jobs](#)

## Linked

0 Create a pdf format file from Python

21 Python saving multiple figures into one PDF file

22 How do I create a simple pdf file in python?

6 Save html file as PDF

7 Matplotlib savefig into different pages of a PDF

4 Python Tkinter save canvas as postscript and add to pdf

0 Convert Django template to pdf

2 What are the easiest ways to generate PDF?

2 Python- creating pdf from xls with some modifications

1 How to create a PDF generator on Python?

[see more linked questions...](#)

## Related

4921 How do I check whether a file exists without exceptions?

4153 Calling an external command in Python

5066 What are metaclasses in Python?

3497 How can I safely create a nested directory in Python?

1513 Convert HTML + CSS to PDF with PHP?

5106 Does Python have a ternary conditional operator?

ReportLab is great, but would benefit from including references like the above prominently in its documentation.

share

edited Oct 5 '13 at 16:20



kyan

8,566 ● 4 ● 59 ● 74

answered May 19 '13 at 7:56



Evgeni Sergeev

12.5k ● 14 ● 77 ● 93

- 12 I must say reportlab is the best for PDF generation that I have tried, definitely the most complete. However, it's also a bit more complicated. [blog.pythonlyc.org/2010/03/08/...](#) [blog.pythonlyc.org/2010/09/21/...](#) – Jose Salvatierra Jul 24 '13 at 16:27

1 This was exactly what i was looking for – Maarten May 20 '16 at 9:46

@JoseSalvatierra Thanks Jose...this is really easy. Thanks for the blog link. – Arindam Roychowdhury Feb 6 at 11:49

add a comment

I suggest Pdfkit. ([installation guide](#))

27

It creates pdf from html files. I chose it to create pdf in 2 steps from my Python Pyramid stack:

1. Rendering server-side with mako templates with the style and markup you want for your pdf document
2. Executing `pdfkit.from_string(...)` method by passing the rendered html as parameter

This way you get a pdf document with styling and images supported.

You can install it as follows :

- using pip

```
pip install pdfkit
```

- You will also need to install wkhtmltopdf ([on Ubuntu](#)).

share

edited Sep 29 '18 at 20:12



Gonzalo Garcia

107 ● 6

answered Nov 2 '15 at 15:33



eton\_ceb

584 ● 7 ● 13

add a comment

You can try [this](#)(Python-for-PDF-Generation) or you can try [PyQt](#), which has support for printing to pdf.

15

## Python for PDF Generation

The Portable Document Format (PDF) lets you create documents that look exactly the same on every platform. Sometimes a PDF document needs to be generated dynamically, however, and that can be quite a challenge. Fortunately, there are libraries that can help. This article examines one of those for Python.

Read more at [http://www.devshed.com/c/a/Python/Python-for-PDF-Generation/#whoCFCPh3TAks368\\_99](http://www.devshed.com/c/a/Python/Python-for-PDF-Generation/#whoCFCPh3TAks368_99)

share

edited Aug 9 '13 at 11:46



jnhghy - Alexandru Jantea

2,091 ● 17 ● 32

answered Feb 12 '13 at 15:16



gruszczy

27.4k ● 21 ● 104 ● 153

add a comment

I have done this quite a bit in PyQt and it works very well. Qt has extensive support for images, fonts, styles, etc and all of those can be written out to pdf documents.

7

share

answered Feb 12 '13 at 16:39



Allen

1,379 ● 3 ● 16 ● 35

- 1 Wow, Qt looks amazing. They say they support 15 platforms, inc. Windows, Mac OS X, Linux, Android, iOS, Windows RT plus these Real-Time Operating Systems- INTEGRITY QNX VxWorks [qt.io/qt-framework](#). And, since I'm a python fan, I like "PyQt combines all the advantages of Qt and Python. A programmer has all the power of Qt, but is able to exploit it with the simplicity of Python." [nverbankcomputing.co.uk/software/pyqt/intro](#) – AnneTheAgile Oct 30 '14 at 16:28

add a comment

I believe that matplotlib has the ability to serialize graphics, text and other objects to a pdf document.

6

share

answered Apr 1 '13 at 16:35



Andrea

255 ● 1 ● 6 ● 11

Yes, you can. [This SO answer](#) has some good links on how to do it. – dreivcko Feb 14 '14 at 11:48

add a comment

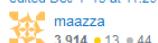
I use [rst2pdf](#) to create a pdf file, since I am more familiar with RST than with HTML. It supports embedding almost any kind of raster or vector images.

6

It requires [reportlab](#), but I found reportlab is not so straight forward to use (at least for me).

share

edited Dec 1 '15 at 11:29



maazza

3.914 ● 13 ● 44 ● 80

answered Aug 11 '15 at 1:38



ismalsunni

906 ● 17 ● 26

1057 Proper way to declare custom exceptions in modern Python?

3397 How do I list all files of a directory?

3536 Does Python have a string 'contains' substring method?

1647 Why is reading lines from stdin much slower in C++ than Python?

## Hot Network Questions

3 Falsification in Math vs Science

3 Is bread bad for ducks?

3 Can we generate random numbers using irrational numbers like  $\pi$  and  $e$ ?

3 Did any laptop computers have a built-in 5 1/4 inch floppy drive?

3 Did Scotland spend \$250,000 for the slogan "Welcome to Scotland"?

3 Geography at the pixel level

3 What to do when moving next to a bird sanctuary with a loosely-domesticated cat?

3 Did the UK government pay "millions and millions of dollars" to try to snag Julian Assange?

3 A female thief is not sold to make restitution -- so what happens instead?

3 How to support a colleague who finds meetings extremely tiring?

3 The difference between dialogue marks

3 What is this sharp, curved notch on my knife for?

3 How come people say "Would of"?

3 What is the most efficient way to store a numeric range?

3 If I score a critical hit on an 18 or higher, what are my chances of getting a critical hit if I roll 3d20?

3 Cooking pasta in a water boiler

3 Dropping list elements from nested list after evaluation

3 What is the meaning of Triage in Cybersec world?

3 Is there a way to generate a uniformly distributed point on a sphere from a fixed amount of random real numbers?

3 What does 白沾 mean here?

3 Will it cause any balance problems to have PCs level up and gain the benefits of a long rest mid-fight?

3 Is it safe to harvest rainwater that fell on solar panels?

3 Can you cast a spell on someone in the Ethereal Plane, if you are on the Material Plane and have the True Seeing spell active?

3 Output the Arecibo Message

add a comment

6 Here is a solution that works with only the standard packages. `matplotlib` has a PDF backend to save figures to PDF. You can create a figures with subplots, where each subplot is one of your images. You have full freedom to mess with the figure: Adding titles, play with position, etc. Once your figure is done, save to PDF. Each call to `savefig` will create another page of PDF.

Example below plots 2 images side-by-side, on page 1 and page 2.

```
from matplotlib.backends.backend_pdf import PdfPages
import matplotlib.pyplot as plt
from scipy.misc import imread
import os
import numpy as np

files = [ "Column0_Line16.jpg", "Column0_Line47.jpg" ]
def plotImage(f):
    folder = "c:/temp/"
    im = imread(os.path.join(folder, f)).astype(np.float32) / 255
    plt.imshow(im)
    a = plt.gca()
    a.get_xaxis().set_visible(False) # We don't need axis ticks
    a.get_yaxis().set_visible(False)

pp = PdfPages("c:/temp/page1.pdf")
plt.subplot(121)
plotImage(files[0])
plt.subplot(122)
plotImage(files[1])
pp.savefig(plt.gcf()) # This generates page 1
pp.savefig(plt.gcf()) # This generates page 2
pp.close()
```

share

answered Mar 4 '16 at 14:03

 Anton Schwaighofer  
2,835 ● 7 ● 21

in my test, the code generates single page with 2 images – constructor Sep 14 '17 at 11:01

updated version of the code can be found in [github.com/constructor-igor/TechSugar/blob/master/pythonSamples/\\_... – constructor](#) Sep 14 '17 at 11:04

add a comment

5 fpdf is python (too). And often used. See PyPI / pip search. But maybe it was renamed from pyfpdf to fpdf. From features: PNG, GIF and JPG support (including transparency and alpha channel)

share

answered Dec 11 '15 at 9:44

 mirek  
168 ● 2 ● 6

Your answer is unclear, but thyere's certainly PyFPDF project [pyfpdf.readthedocs.io/en/latest – Wojciech Kaczmarek](#) Jul 26 '16 at 14:34

add a comment

2 It depends on what format your image files are in, but for a project here at work I used the tiff2pdf tool in LibTIFF from [RemoteSensing.org](#). Basically just used subprocess to call tiff2pdf.exe with the appropriate argument to read the kind of tiff I had and output the kind of pdf I wanted. If they aren't tiffs you could probably convert them to tiffs using PIL, or maybe find a tool more specific to your image type (or more generic if the images will be diverse) like ReportLab mentioned above.

share

answered Feb 12 '10 at 16:19

 Tofystedeth  
345 ● 3 ● 7

add a comment

2 You can actually try xhtml2pdf <http://flask.pocoo.org/snippets/68/>

share

answered Sep 29 '16 at 5:38

 zero001  
21 ● 3

add a comment

2 rinohtype supports embedding PDF, PNG and JPEG images (natively) and other bitmap formats (when Pillow is installed).

(Full disclosure: I am the author of rinohtype)

share

answered Aug 26 '17 at 12:49

 Brecht Machiels  
1,374 ● 2 ● 12 ● 30

1 Hey! Correct me if I'm wrong, but it seems that it's quite powerful tool and unlike many, many others listed here is not a python wrapper for an acient php/ruby/perl/pyqt4/other crap library. – Mikaelblomkvistsson Feb 12 at 8:10

add a comment

2 If you are familiar with LaTex you might want to consider [pylateX](#)

2

One of the advantages of pylatex is that it is easy to control the image quality. The images in your pdf will be of the same quality as the original images. When using reportlab, I experienced that the images were automatically compressed, and the image quality reduced.

The disadvantage of pylatex is that, since it is based on LaTex, it can be hard to place images exactly where you want on the page. However, I have found that using the position argument in the Figure class, and sometimes Subfigure, gives good enough results.

Example code for creating a pdf with a single image:

```
from pylatex import Document, Figure

doc = Document(documentclass="article")
with doc.create(Figure(position='p')) as fig:
    fig.add_image('Lenna.png')

doc.generate_pdf('test', compiler='latexmk', compiler_args=[ "-pdf", "-pdflatex=pdflatex"], cle
```

In addition to installing pylatex (pip install pylatex), you need to install LaTex. For Ubuntu and other Debian systems you can run sudo apt-get install texlive-full . If you are using Windows I would recommend [MiKTeX](#)

share

answered Nov 27 '18 at 10:13

 Chepe  
180 ● 2 ● 11

[add a comment](#)

▲

fpdf works well for me. Much simpler than ReportLab and really free. Works with UTF-8.

0

share

answered Mar 9 '14 at 18:44

 mfs  
91 ● 1

2 Link/Descrip.: [fpdf.org](#) FPDF is a PHP class which allows to generate PDF files with pure PHP, that is to say without using the PDFlib library. F from FPDF stands for Free: you may use it for any kind of usage and modify it to suit your needs. FPDF has other advantages: high level functions. Here is a list of its main features: Choice of measure unit, page format and margins, Page header and footer management, Automatic page break, Automatic line break and text justify, Image support (JPEG, PNG and GIF), Colors, Links, TrueType, Type1 and encoding support. Page compression – [AnneTheAgile](#) Oct 30 '14 at 16:05

10 Not very relevant considering the question was about Python, not PHP – [KingRadical](#) Jan 28 '15 at 0:20

1 why all this downvoting ? fpdf is available also for python. pip install fpdf works – [user1981924](#) Mar 25 '18 at 21:46

fpdf might have started with php. But [there is a python](#) port which works really well. So I thinks this is a very relevant answer which deserve more up votes than down votes. (I am not sure about the situation when this answer was initially posted) – [Anubis](#) Feb 6 at 20:45

[add a comment](#)

Not the answer you're looking for? Browse other questions tagged [python](#) [pdf](#) or [ask your own question](#).



## STACK OVERFLOW

- [Questions](#)
- [Jobs](#)
- [Developer Jobs Directory](#)
- [Salary Calculator](#)
- [Help](#)
- [Mobile](#)

## PRODUCTS

- [Teams](#)
- [Talent](#)
- [Advertising](#)
- [Enterprise](#)

## COMPANY

- [About](#)
- [Press](#)
- [Work Here](#)
- [Legal](#)
- [Privacy Policy](#)
- [Contact Us](#)

## STACK EXCHANGE NETWORK

- [Technology](#)
- [Life / Arts](#)
- [Culture / Recreation](#)
- [Science](#)
- [Other](#)

[Blog](#) [Facebook](#) [Twitter](#) [LinkedIn](#)

site design / logo © 2019 Stack Exchange Inc; user contributions licensed under cc-by-sa 3.0 with attribution required

By using our site, you acknowledge that you have read and understand our [Cookie Policy](#), [Privacy Policy](#), and our [Terms of Service](#). 