Generating PDFs With (and Without) Python

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What are PDFs?

Document Presentation Format

- Precisely lays out elements on a page
- Has a concept of the size of the paper
- Cross platform
- Standardized

Anything destined for a printer should probably be a PDF

ReportLab

```
import reportlab
from reportlab.platypus import SimpleDocTemplate, Paragraph
from reportlab.lib.styles import getSampleStyleSheet, ParagraphStyle
from reportlab.lib.units import inch
from reportlab.lib.pagesizes import letter
import io
buf = io.BytesIO()
# Setup the document with paper size and margins
doc = SimpleDocTemplate(
   buf.
   rightMargin=inch/2,
    leftMargin=inch/2,
   topMargin=inch/2,
    bottomMargin=inch/2,
   pagesize=letter,
```

ReportLab (continued)

```
# Styling paragraphs
styles = getSampleStyleSheet()

# Write things on the document
paragraphs = []
paragraphs.append(
    Paragraph('This is a paragraph', styles['Normal']))
paragraphs.append(
    Paragraph('This is another paragraph', styles['Normal']))
doc.build(paragraphs)

# Write the PDF to a file
with open('my.pdf', 'w') as fd:
    fd.write(buf.getvalue())
```

Sphinx and ReStructuredText

```
.. index.rst
Heading
======
This is a paragraph.
This is a 'link <a href="http://example.org">'_</a>
Subheading
.. This is a table of contents
.. toctree::
   :maxdepth: 2
   01-first-import
```

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Django documentation rendered as a PDF by Sphinx

LATEX

```
\documentclass{article}
\begin{document}
    % Use your favorite templating engine
    % and generate your PDF with the well used pdflatex
{\small This is some small text }

    % This presentation was created with LaTeX
\end{document}
```

Others

- XHTML2PDF, wkhtmltopdf, PhantomJS (HTML)
- Inkscape (SVG)
- FDFGen (PHP with a Python port)

Resources

- http://www.reportlab.com/
- http://www.latex-project.org/
- http://sphinx-doc.org/
- http://docutils.sourceforge.net/ (reST)
- https://docs.djangoproject.com/en/dev/howto/outputting-pdf/