

Graphics

PDF files support elementary drawing operations as part of their syntax. These are **vector graphics** and include basic geometrical objects like lines, curves, circles, rectangles including specifying colors.

The syntax for such operations is defined in “A Operator Summary” on page 643 of the [Adobe PDF References](#). Specifying these operators for a PDF page happens in its [contents](#) objects.

PyMuPDF implements a large part of the available features via its [Shape](#) class, which is comparable to notions like “canvas” in other packages (e.g. [reportlab](#)).

A shape is always created as a **child of a page**, usually with an instruction like `shape = page.new_shape()`. The class defines numerous methods that perform drawing operations on the page’s area. For example, `last_point = shape.draw_rect(rect)` draws a rectangle along the borders of a suitably defined `rect = pymupdf.Rect(...)`.