The LaTeX-package `callouts`

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1 Introduction

In some reports or documents it may be necessary to annotate, draw arrows or put notes inside a picture. This may be done by editing the picture itself in a graphics tool or using the package TikZ. The former has the disadvantage of a different font and probably font size, the latter may require a lot of source code when using the same commands repeatedly. The package `callouts` provides a simple approach to annotate pictures.

2 Using the package

The package is included in the preamble as follows, with currently four color options, listed in table 1. If no or a wrong option is specified, the package will use `plain`.

```
1   \includepackage{callouts}[option]
```

Table 1: Color options

option	text	background	arrow
plain	black	black	none
bwr	black	white	red
wby	white	black	yellow
bww	black	white	white

The environment itself is called `annotate` and may be put inside a `figure`-float. The environment requires two variables: The image path including a width option and the annotation scale. Make sure to put the same number in the `width`-option and the coordinate scale. If you decide to change the scale later on, change both numbers equally, then the relative position of the annotations will remain.

```
1   \begin{annotate}
2   {\includegraphics[0.5\textwidth]{<picture file name>} {0.5}
3   \end{annotate}
```

3   Commands for annotations

There are currently four commands included which may follow the first two variables of the package.

3.1   Helpgrid

First of all, you may want to use a help grid to place your annotations. With \helpgrid, a grid is drawn. The grid's coodinate origin is indicated by the large dot in the center. The grid lines display integers, coordinates are given in positive and negative decimal numbers.

3.2   Callouts, notes, arrows

A callout is a note, indicating to a point with an arrow. The syntax for this object is

```
1  \callout{xn,yn}{<note>}{xa,ya}
```

Here, `xn`, `yn` are the center coordinates for the note and `xa`, `ya` the coordinates for the arrow tip.

You may put a note withouth an arrow, or an arrow alone, respectively, by writing

```
1  \note{xn,yn}{<note>}
2  \arrow{xs,ys}{xa,ya}
```

3.3 An example

The following source code results in figure 1. The color option used here is `wby`. Note that the `annotate`-environment opens a `tikzpicture` environment. Hence, all TikZ-commands such as `\draw` can be used as well, as for example in line 8.

```
1  \begin{annotate}{\includegraphics[width=0.7\textwidth]...
2  ...{A319neo.jpg}}{0.7}
3    % \helpgrid
4    \callout{5,-3}{Engine}{1.6,-2}
5    \arrow{-3,-2.4}{-4.5,-3}
6    \arrow{-4.7,-3.2}{-5.5,-2.4}
7    \note{1,5}{Wingtip}
8    \draw [thick,\arcol] (2.5,3.8) rectangle (4,5);
9  \end{annotate}
```
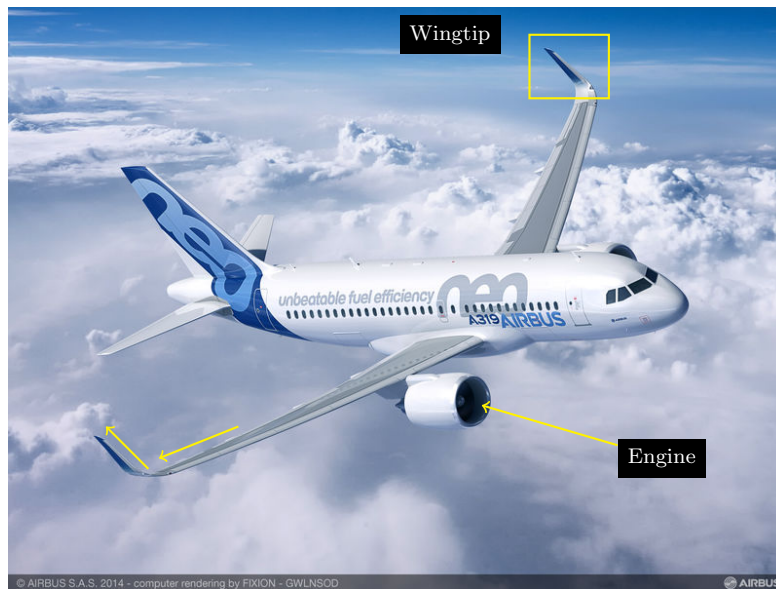

Figure 1: Airbus A319neo[1]

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[1]Image courtesy: AIRBUS S.A.S. 2014, `www.airbus.com`, accessed 3.3.2017