

# The package sevseg (2023/11/26 v0.1)

Davide Campagnari

The package provides a macro which sets its argument in seven-segment look with the help of the package pict2e:

```
\sevseg{137} → 137
```

Possible arguments are all figures, letters from A to F (both upper- or lowercase), period, comma (same as period), colon, and a minus sign:

```
\sevseg{-0.123456789:ABCDEF,abcdef} → -0.123456789:AbCdEf.AbCdEf
```

Unsupported characters are ignored:

```
\sevseg{Hello world!} → Hd
```

though your log will contains lines like

```
No character `H' available with \sevseg on input line 31.  
No character `l' available with \sevseg on input line 31.  
No character `l' available with \sevseg on input line 31.  
No character `o' available with \sevseg on input line 31.
```

and so on...

The segments' size is calculated such that the height of the seven-segments symbols corresponds to the height of the figure '6' in the current font. The figure 6 has been chosen instead of e.g. '0' in order to get large enough seven-segments symbols also when using a font with old-style figures.

## Customizing the looks

There are some key/value options which can be given (1) as package options, or (2) as optional argument to the `\sevseg` macro, or (3) as argument to the macro `\sevsegsetup`. The options are

**on**=*<colour>* defines the colour of the shown segments;

**off**=*<colour>* defines the colour of the hidden segments;

**unitlength**=*<length>* overrides the calculated value of `\unitlength`;

**linethickness**=*<length>* fixes the line thickness (default 0.4pt);

**linesep**=*<length>* fixes the segments' separation (default 0.2pt);

**scale**=*<number>* scales all sizes;

**bg**=*<colour>* changes the colour of the background.

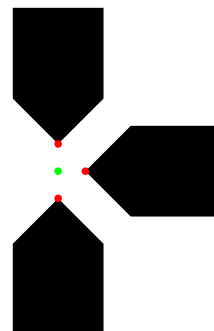
For example, with

```
\sevseg[on=red,off=gray]{7bf}
```

you get 888. Clearly, when the options are set via the optional argument of `\sevseg`, the assignments will affect only the current call.

Please note that *no* colour package is loaded by default! If you want to use colours, you should load `color` or `xcolor` by yourself.

The option setting the line thickness should be self-explanatory. The “separation” of the segments is defined as the distance between the segments' ‘tips’ from the reference point in their middle. Referring to the picture besides, the separation is thus the distance between the red dots and the green dot.



### **Funnier examples**

In typical Knuth style I can now disclose that I haven't told the *whole* truth... The macro `\sevseg` accepts also 0 (capital letter O) in its argument, which prints all segments switched off. Within a normal typing this just introduces an empty slot, but with a background colour you can do e.g.

```
\sevseg[bg=black,on=red,off=darkgray,scale=4]{08:45} % 0, not 0!
```

and obtain

