Glisterings: Glyphs, long labels

Peter Wilson

Ek gret effect men write in place lite;
Th’ entente is al, and nat the lettres space.

*Troilus and Criseyde*, Geoffrey Chaucer

The aim of this column is to provide odd hints or small pieces of code that might help in solving a problem or two while hopefully not making things worse through any errors of mine. This installment presents some items about glyphs.

1 Asterism

A symbol called an asterism is a simple kind of ornament consisting of three asterisks, and is supplied as a glyph in some fonts. It is typically used as an anonymous division, looking like this:

```
***
```

Stephen Moye [8] posted a macro to make one if it was not available otherwise. This was based on some earlier code from Peter Flynn [4]. The code below is my version.

```
\newcommand*{\asterism}{% 
  \raisebox{-.3em}{\[1em\]\[0em\]}{\% OK for 10-12pt 
    \setlength{\tabcolsep}{0.05em}{% 
    \begin{tabular}{@{}cc@{}}% 
      \multicolumn{2}{c}{}\% 
      \end{tabular}% 
    \}}% 
\par\centering \asterism\par
```

2 Raising a character

‘Maximus_Rumpas’ wrote to ctt along the following lines:

```
I am writing some Latin text within a document: GALL : REG : IACO : MAG : BRITA : REG I need to raise the colon between the abbreviated text to the centre of the text line rather than, as normal, aligned at the bottom of the text. I use \textperiodcentered for a single period but I can’t find anything similar for colons.
```

Heiko Oberdiek [9] responded with:

```
\begin{document}
\begin{vccolon}
 GALL : REG : IACO : MAG : BRITA : REG
\end{vccolon}
\end{document}
```

Following on from this Dan Luecking suggested using a \valign:

```
def\textcoloncentered{% 
  \valign{##\cr\vphantom{T}\cr\vfil\hbox{:}\cr\vfil\cr}
}
```

also remarking that perhaps a simple box raised by some multiple of ex would do as well.

I tried all three suggestions and decided that

```
\DeclareRobustCommand*{\textcoloncentered}{% 
  \raisebox{.2ex}{:}}
```

gave a satisfying result, also enabling the height to be adjusted to optically center the colon if necessary.

Heiko’s result:

```
GALL : REG : IACO : MAG : BRITA : REG
```

Dan’s result:

```
GALL : REG : IACO : MAG : BRITA : REG
```

My result:

```
GALL : REG : IACO : MAG : BRITA : REG
```

3 Boxing a glyph

Paul Kaletta wanted to be able to draw a box around a glyph similar to the example in chapter 11 of *The \TeXbook*. Herbert Voß responded with [11] (slightly edited):

```
\begin{document}
\begin{vbox}
 \setlength{\unitlength}{1pt}
 \vboxsep=0pt \vbox{\Box[1]}% 
\end{vbox}
```

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4 Glyph widths

'PmI' wrote to ctt:

I'm trying to put some text in a box, so that I can calculate the box dimensions, but neither hbox nor mbox seem to want to perform linebreaks, and parbox needs a width argument, which is actually what I want to compute so it's useless ... example follows:

\begin{minipage}{\testboxwidth}
\usebox\testbox
\end{minipage}

Herbert's demonstration code results in:

\leavevmode
\put(0,0){\line(1,0){\strip@pt\wd\CBox}}%
\fbox{#1}%
\put(-\strip@pt\wd\CBox,0){\circle*{4}}
\endgroup
\makeatother
\begin{document}
\begingroup
\fontsize{2cm}{2.2cm}\selectfont
\Gbox{g}\Gbox{r}\Gbox{f}\
\Gbox{'}\Gbox{,}\Gbox{T}
\endgroup
\end{document}

5 Font size

Gonzalo Medina Arellano asked on ctt:

Let's say I use 12pt as a class option. How can I find the exact values of the size obtained with the standard commands \tiny, \scriptsize, ..., \huge, and \Huge?

Several respondents, Bob Tennent [10] among them, suggested looking at the appropriate \*.clo file, such as size12.clo for the article or report classes' 12pt option or bk12.clo for the book class, which lists the font and baseline sizes for the several size commands.

Dan Luecking [6] added to this, saying (edited a bit):

You can determine the current font size within a document without knowing what size command was last issued. The macro \f@size holds the font size [as a number (10, 12, 14, 4, ...)] and is updated with each size change. For convenience we can define another macro without an @ sign to access it, as in:
\begin{verbatim}
\makeatletter
\newcommand*{\currentfontsize}{\f@size}
\makeatother
\end{verbatim}

Then \currentfontsize would print it and \typeout{\currentfontsize}
would display it on the terminal screen and in the log file.

It turns out that the font sizes are the same in size*.clo and book*.clo (the differences are in various margin settings). The unofficial \TeX reference manual provides a table of the font sizes at [5].

I don't believe in labels. I want to do the best I can, all the time. I want to be progressive without getting both feet off the ground at the same time.

Television and radio interview, March 15, 1964, Lyndon B. Johnson
6 Long labels

Ernest posted to comp.text.tex saying \cite{2}:

I’m trying to change the description environment, so that when labels exceed a certain length, the text following the label starts in the next line instead of starting in the same line. The \LaTeX Companion book explains how to do this, however, when I’ve tried I’ve found that the lines that contain a long label are typeset a little bit too close to the previous line, not with the usual baselineskip ...

The standard description environment uses \texttt{descriptionlabel} for setting the contents of the \texttt{item} macro. The Companion \cite[§3.3]{7} describes various methods of modifying the standard layout by using a different definition for \texttt{descriptionlabel} and/or creating a new kind of description list. Ernest’s requirement can be met by a modified version of \texttt{descriptionlabel}, the default definition of which is:

\begin{verbatim}
\newcommand*{\descriptionlabel}[1]{%
  \hspace{\labelsep}%
  \normalfont\bfseries #1}
\end{verbatim}

The following is an example of the default appearance of a description list:

\begin{itemize}
  \item \textbf{Short} A short label.
  \item \textbf{Longer label} A longer label.
  \item \textbf{A very long label exceeding the available width}
    A long label with the text also longer than a single line.
  \item \textbf{Medium label} The more typical length of a label and some text.
\end{itemize}

As you can easily see, it does not handle long \texttt{item} labels in a graceful manner.

This version of the \texttt{descriptionlabel} meets Ernest’s requirements:

\begin{verbatim}
\usepackage{calc} % or xparse \newlength{\dlabwidth} \newcommand*{\widedesclabel}[1]{% \settowidth{\dlabwidth}{\textbf{#1}}% \hspace{\labelsep}% \ifdim\dlabwidth<\columnwidth \parbox{\columnwidth-\labelsep}{ \textbf{#1}\strut}% \else \textbf{#1} \fi} \let\descriptionlabel\widedesclabel
\end{verbatim}

which, when applied to the previous example yields:

\begin{itemize}
  \item \textbf{Short} A short label.
  \item \textbf{Longer label} A longer label.
  \item \textbf{A very long label exceeding the available width}
    A long label with the text also longer than a single line.
  \item \textbf{Medium label} The more typical length of a label and some text.
\end{itemize}

References

\begin{enumerate}
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