

Grzegorz Murzynowski  
Sulejówek, Poland  
natror at o2 dot pl

**Abstract**

I wrote a package for ‘optical centering’ of verses and for right alignment of long and broken lines. By ‘optical centering’ I mean placement of the box containing a verse such that it seems to be balanced on the vertical axis of a page.

Another package of mine is gmcontinuo, working under both L<sup>A</sup>T<sub>E</sub>X and Plain T<sub>E</sub>X. It allows one to typeset paragraphs *in continuo*, marked not with a new line and indent but continuously, marked with only the ¶ sign.

**1 The gmverse package**

**1.1 Alignment of broken lines**

Apentula niewdziosek te będą  
gruwaśne  
W koć turmiela weprząchnie, kostrą  
bajtę spoczy

**Figure 1:** A verse by S. Lem in a standard verse ...

Oproszędy zniemęci, wyświrle  
uwzroczy,  
A korśliwe porsacze dogremnie  
wyczkaśnie.

**Figure 2:** ... and in verse of gmverse: long and broken lines aligned right ...

Trzy samolóz wywiorstne gręczacz  
[tęci wzdyżmy,  
Apelajda sękliwa borowajkę  
[kuci...

**Figure 3:** ... and bracketed.

As you can see in figs. 2 and 3, gmverse provides for right alignment of long and broken lines. This seems to be typical in Polish typography and one gets that effect with just `\usepackage{gmverse}`. Optionally, the rest of a long line may be preceded with a left square bracket, which is used in Polish typesetting of poetry. That is specified with the `squarebr` option of gmverse.

What are the ‘long lines’, though? They are the lines exceeding `\hsize` or the length set with the `\versemaxline` declaration.

By the way, the source of the verse in fig. 3 is:

```
\begin{verse}
  Trzy samolóz wywiorstne (...) wzdyżmy,
  Apelajda sękliwa borowajkę kuci \dots
\end{verse}
```

Do you see what’s missing? Yes. When I typeset poetry, I don’t want to think about `\`, especially when I copy the verses from non-T<sub>E</sub>X files. But if you insist, you may write `\`, it has the same effect and optional argument as in standard verses. A stanza you mark with a blank line.

Sometimes I typeset liturgical texts (psalms of Liturgia Horarum e.g.) that need to have stanzas (versetti) alternately indented. That is available in the `\psalmato` declaration’s scope, cf. fig. 4.

Składniki: cukier, miazga kakaowa, †  
migdały sześć procent, masło kakaowe \*  
tłuszcz mleczny, gruszka, jabłko, ananas.  
Aromat naturalny gruszkowy, \*  
emulgator lecytyna sojowa.  
Substancja zagęszczająca \*  
alginian sodu.  
Regulator kwasowości kwas cytrynowy \*  
E trzysta trzydzieści...

**Figure 4:** The `\psalmato` declaration’s effect.

(The cross and star indicate a continuation and division of a psalm line, respectively.)

**1.2 Centerings**

The gmverse package provides several kinds of centering of a verse. By centering of a verse I mean horizontal centering of some rectangle on a page. That rectangle corresponds to the body of a verse; how it corresponds depends on the kind of centering. The common feature of those rectangles is that their left side sticks to the left margin of the verse’s body. The verse itself is always aligned mostly left (ragged right and continuations of broken lines aligned right).

The optical centering may be either automatic or manual. The automatic comes in four flavours, all

<sup>2</sup> Anne-Sophie Mutter.

$W_\infty$ :	ASM <sup>2</sup> rządzi dioda świeci miodowo chrząszcz chrzęści w czcionkach.
$W_3$ :	ASM rządzi dioda świeci miodowo chrząszcz chrzęści w czcionkach.
$W_2$ :	ASM rządzi dioda świeci miodowo chrząszcz chrzęści w czcionkach.
$W_1$ :	ASM rządzi dioda świeci miodowo chrząszcz chrzęści w czcionkach.

**Figure 5:** Four versions of optical centering of a verse — E. Szarzyński, *Late night haiku No. 3*.

of them cases of a general formula. The idea is to compute some average of the lines' lengths and set the rectangle's width to that average.

The first kind of average one can think of is arithmetical mean. That is the case  $W_1$ . The last kind of average is 'only the longest line counts', that's  $W_\infty$ . Between them are a continuum of possibilities; consider a formula

$$W_\alpha = \frac{\sum_{k=1}^n l_k^\alpha}{\sum_{k=1}^n l_k^{\alpha-1}}$$

where  $l_k$ ,  $k = 1, \dots, n$  are the lengths of the lines<sup>3</sup> and  $\alpha \in [1, +\infty)$ .

When  $\alpha = 1$ , all the lines have 'equal right to decide' about the mean. When  $\alpha$  grows, the longer lines become 'równiejsze' ('more equal', a term from the PRL<sup>4</sup> epoch to describe unjust privileges of the Party apparatchiks), which means they mean more to the mean.

We define  $W_\infty$  most naturally, as the limit:

$$W_\infty = \lim_{\alpha \rightarrow \infty} W_\alpha$$

and we notice easily that  $W_\alpha$  corresponds to taking only the longest line into account.

<sup>3</sup> Assume they all have nonzero length when  $\alpha = 1$ .

<sup>4</sup> Polska Rzeczpospolita Ludowa (People's Republic of Poland)

I personally like  $W_3$  most and that's the default when optical centering is on.

If you prefer to set the centering manually, you are given two ways to do that: the `\vocpusshair` parameter (`dimen`) intended for slight modifications of the result of automatic computation, and the declaration(s)

```
\versecenterdue{\benchmark text}
```

or

```
\versecenterdue*{\benchmark dimen}.
```

## 2 The gmcontinuo package

One day I read on GUST-L a post posted by a non-newbie, who stated that *in continuo* typesetting was not possible in T<sub>E</sub>X "because of the very nature of paragraphs in T<sub>E</sub>X". My immediate response to that was a package that works both in Plain and in L<sup>A</sup>T<sub>E</sub>X, which *does* do that: the text

¶ ... wyrosła budowla złożona i przedstawiająca i będąca marmurowo czarnymi (z czarnego marmuru) schodami prowadzącymi we Wszystkich kierunkach i zwrotach (rzecz jasna też poza tę czasoprzestrzeń). ¶ Z ust lampy białej jak gniazdo osy wypadła Salamandra i na pierwszych czterech stopniach budowli złożyła po jednym pomarańczowym jajku (ich powierzchnia była jak skórka pomarańczy). ¶ Przeliczyłem je — siedem z dołu w prawo, pięć z tyłu wglądź. ¶ Rzeczywiście, wszędzie wirują z wiatrem oka z pawich ogonów (niektóre mrugają porozumiewawczo)... ¶ *Edmund Szarzyński*.

is typeset from an ordinary T<sub>E</sub>Xt with paragraphs marked just with blank lines.

This small package is an example of a general rule that in T<sub>E</sub>X you should never *ever* state "It's impossible", and you should not even ask "Can it be done?", but: "*How* can it be done?"

## 3 The point

Why do I write in one article about such different things as right alignment of broken lines of a verse and *in continuo*? Because they use the same T<sub>E</sub>X mechanism: unpacking of a once-typeset box, thanks to `\unhbox` and/or `\unvbox`, that lets you to retypeset a paragraph having found its dimensions.