Late-Breaking News

Fixed-Point Glue Setting: Errata

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I thank Eberhard Mattes for calling my attention to an error in the demonstration WEB program I published in *TUGboat* **3**,1 (March 1982), 10–27. After looking more closely at that program, I noticed that it actually contains at least *two* errors. I should have known better than to rush into print with the second draft of a program on which I had spent only a few hours of time; but I was just beginning to learn how to program in WEB, and the new methodology had lulled me into thinking that I understood what I was doing.

The most serious error occurs in line 9 of the program in section 14. That line should be:

if $a + b + k - h = 15$ then
$c \leftarrow (q + 1)$ div 2 $\{\, l = 16 - k \,\}$

This error caused the answers for test data set 4, on page 23 of the article, to be only about half as big as they should have been; the correct value of c for that data set is 30670, not 15335.

The other error arises when the number b in the algorithms turns out to be greater than 30. I believe the best way to correct it is to replace the four lines beginning with 'if $b < 0$' in section 12 by the following:

if $(b < 0) \vee (b > 30)$ then
   if $b < 0$ then *write_ln*(`'!␣Excessive␣glue.'`);
                          $\{$ error message $\}$
   $b \leftarrow 0$; $c \leftarrow 0$; $\{$ make $f(x)$ identically zero $\}$
end

After writing that article I learned that standard Pascal also wants the specification ': 0' to become ': 1' in *write* and *write_ln* statements (sections 21, 24, and 25; five places altogether).

I also learned that the language is properly called Pascal, not PASCAL; and I began calling scaled points 'sp' instead of 'spt'.

Although the comments in section 1 state that my algorithm uses only 16-bit multipliers and divisors, the truth is that it also might use larger multipliers and divisors that happen to be powers of 2. Such multiplications and divisions can be replaced by binary shifts, in a language like C.

I overlooked a few typographic errors: 'process or' should be 'processor' on the first line of page 11, and 'as' should be 'that' on line 8 from the end

of that page; 'hve' should be 'have' in section 4, line 20, and '$\lfloor 2^{-a}x \rfloor$' should be '$\lfloor 2^{-a}x_i \rfloor$', a few lines further down. Also 'x_1' should be 'x_i' in line 5 of section 21.

Finally, I should have used the same notation in the program of sections 12–14 as I used in the theoretical discussion of section 4.

A corrected version of the program, incorporating the remarks above and a few other things, is now available in standard TeX electronic archives under the file name glue.web.

Looking on the bright side, I'm pleased to report that TeX now processes the entire woven program in only 10 seconds on my home computer; according to the article, the same task took 40 seconds in 1981, using the KL10 mainframe on which I did all the development of TeX.

And oh yes, one further correction is necessary: The amount of time spent proofreading and debugging, mentioned on page 11 of my article, should now be increased from 'about two hours' to 'about six hours'.

Production Notes

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Input and input processing

Electronic input for articles in this issue was received by mail and on floppy disk. Most articles were fully tagged for *TUGboat*, using either the plain-based or LaTeX conventions described in the Authors' Guide (see *TUGboat* 10, no. 3, pages 378–385). Several authors requested copies of the macros (which we were happy to provide); however, the macros have also been installed at labrea.stanford.edu and the other archives, and an author retrieving them from an archive will most likely get faster service. Of course, the TUG office will provide copies of the macros on diskette to authors who have no electronic access.

The number of articles in this issue was split about evenly between "plain" and LaTeX; pages too were about evenly divided. In organizing the issue, attention was given to grouping bunches of plain or LaTeX articles, to yield the smallest number of separate typesetter runs, and the least amount of handwork pasting together partial pages. This also affected the articles written or tagged