JemTEX 2.00 available for Japanese

François Jalbert

I have just released Version 2.00 of my Japanese [LA]TEX system.

JemTEX is a freeware package containing everything needed to typeset beautiful Japanese text. You should, of course, already have a Japanese text editor, TEX, and METAFONT. Turbo-Pascal sources and executables are included for DOS computers. UNIX users are now supplied with a C program (gcc) so they too can enjoy JemTEX.

If you are interested in METAFONT code for japanese and chinese, the program `jis2mf` will interest you. This much improved program generates METAFONT code automatically out of 24 × 24 bitmap files. Smoother and better positioned japanese characters are the main improvements. METAFONT code for 61 japanese fonts of 128 characters covering punctuation, english, hiraganas, katakanas, and kanjis (level 1 and 2) is included indirectly in JemTEX.

My program `jem2tex` will turn the output of your favorite DOS or UNIX japanese text editor into a standard TEX, LATEX, or MTEX document. Thanks to several users from Japan, it handles fine points of japanese punctuation, spacing, and hyphenation much better than before. Switching to C for `jem2tex.exe` has also improved the speed substantially since Turbo-C has buffered I/O for non-text files, unlike Turbo-Pascal.

The file `JEMTEX2.ZIP` includes a 40-page-long user's guide `jguide.tex` where you can find all the details. It is (or soon will be) available from:

- `SIMTEL` (USA) (26.2.0.74)
  (tenex FTP or e-mail server)
- `utsun` (Japan) (133.11.11.11) (binary FTP)

Please feel free to contact me if you wish more information, or to be added to the mailing list which is only now officially being started. I plan on using it to keep everybody informed of new versions and bug fixes.

◇ François Jalbert
220 Forest
Châteauguay, QC
Canada J6J 1R1
`jalbert@IRO.UMontreal.CA`

Fonts

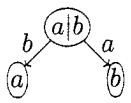
Labelled diagrams in METAFONT

Alan Jeffrey

1 Diagrams in METAFONT

In *TUGboat* 11(5), Alan Hoenig described a method of producing diagrams in METAFONT with labels provided by TEX. His method relied on passing information around via font dimensions. This is a standard method of passing information from METAFONT to TEX, but it has some drawbacks:

- There are only a limited number of font dimensions available, and each label uses up two of them.
- As METAFONT can only communicate with TEX via font dimensions, each label has to be assigned a font dimension, and it is difficult for the correspondence between font dimensions and labels to be kept automatically.
- Since TEX is providing the labels, and METAFONT is providing the diagrams, the diagrams have to be kept in a different file from the labels.
- There is no communication between TEX and METAFONT, so METAFONT cannot change the diagram depending on the size and shape of the labels. This is rather inconvenient for diagrams such as



  where the shape of the ovals depends on the size of the contents.

Fired with enthusiasm by Alan's talk at the European TEX Users Group meeting, I stole the best of his ideas, and slightly modified them to produce a simple METAFONT–TEX interface. This allows TEX code to be embedded within a METAFONT program, for example

```
begindiagram(2,30pt#,7pt#,2pt#);
    hboxes(0);
    pickup pencircle scaled 0.4pt;
    .5[hboxl0,hboxr0] = (.5w,0);
    draw hboxbl0..hboxtl0
             ---hboxtr0..hboxbr0
             ---cycle;
    setbox0 "$g \circ h$";
enddiagram;
```

produces the diagram $\boxed{g \circ h}$. The new facilities used are: