

# Unslanted punctuation in Computer modern slanted

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## Abstract

The Computer Modern text slanted fonts have been modified in the following manner:

- all punctuation chars turns unslanted,
- corresponded italic corrections added as kerning;

Replacement of `cmsl*` fonts by `cmshup*` simplifies typesetting of articles: otherwise author or editor have to use additional `tex` commands in slanted text with formulas.

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## Preface

There exist the well-known problem with scientific articles typesetting in `TeX`: the unslanted punctuation in mathematical formulas looks in a terrible dissonance with the slanted punctuation in a paragraph with slanted text font such as theorem formulation.

The `AMS-TeX` and `AMS-LATEX` macro packages provides a user guides recommends uprighting the slanted punctuation by usage appropriate macro (`\rom{}`) which makes its argument unslanted and adds the italic correction before it. This approach does not give the perfect solution:

- this specific to slanted text markup is not style independent;
- this markup requires extra work;
- it is so easy to miss some comma or semicolon slanted especially while copying sentences from other text.

- the proper italic correction should sometimes be improved manually to match properly also right char shape (*I*, *but I!*);

The special slanted font with unslanted punctuation seems to provide the better problem solution than special text markup.

In order to keep a backward compatibility, the new font has to differ from standard computer modern slanted just in the two aspects:

1. all the punctuation chars must be unslanted;
2. There must be another kerning between each letter and punctuation to include italic correction.

The principal question was how to provide necessary portability between those different kinds of TeX systems: We need exactly identical metric files for slightly different fonts: glyphs (pictures) for punctuation chars in METAFONT generated and virtual fonts differs a bit even when we use `romand.mf` source for digits.

The solution accepted was the more or less invisible width corrections inserted with appropriate `moveright/moveleft` commands in `cmslup*.vf` by perl script.

The package contains the proposed solution support for CM slanted, METAFONT sources (possibly minimal modification of `cmsl*.mf` sources) for systems without virtual font support, virtual fonts (combining text from `cmsl*` and punctuation from `cmr*`) to use with type1 CM fonts and package for L<sup>A</sup>T<sub>Ε</sub>X 2<sub>ε</sub> users.

## 1 Distribution and installation

### 1.1 Files to distribute

The full `cmslup` distribution on CTAN contains following files:

**Full `cmslup.zip` archive (40.74k)** has been packed for use in any tds-compliant distribution;

**Source `cmslupsr.zip` archive (17.76k)** contains just the `cmslup.dtx` file with all sources necessary to produce full files set;

**EmT<sub>Ε</sub>X runtime `cmslupem.zip` archive (27.03k)** packed for use with emT<sub>Ε</sub>X and does not include sources and virtual fonts.

`cmslup.txt` (1.16k) contains brief plain text annotation;

`cmslup.pdf` (128.55k) contains short user documentation in PDF format;

`cmslup.tpm` (1.73k) serves the fpT<sub>Ε</sub>X installation routine.

Any of archive files can be distributed along.

### 1.2 Installation on tds-compliant system

The `cmslup.zip` archive contains the following files:

<code>texmf/doc/fonts/misc/cmslup.dvi</code> (10.51k)	— Base documentation in dvi format
<code>texmf/doc/fonts/misc/cmslup.txt</code> (1.16k)	— Ascii brief description

```

texmf/fonts/source/rfbr/cm/cmslup/cmslup10.mf (1.08k)
    — METAFONT 10pt source driver file
texmf/fonts/source/rfbr/cm/cmslup/cmslup12.mf (1.08k)
    — METAFONT 12pt source driver file
texmf/fonts/source/rfbr/cm/cmslup/cmslup8.mf (1.07k)
    — METAFONT 8pt source driver file
texmf/fonts/source/rfbr/cm/cmslup/cmslup9.mf (1.07k)
    — METAFONT 9pt source driver file
texmf/fonts/source/rfbr/cm/cmslup/cmslupgn.mf (12.72k)
    — METAFONT source generator file
texmf/fonts/vf/rfbr/cm/cmslup/cmslup10.vf (1.00k) — Virtual font 10pt file
texmf/fonts/vf/rfbr/cm/cmslup/cmslup12.vf (1.00k) — Virtual font 12pt file
texmf/fonts/vf/rfbr/cm/cmslup/cmslup8.vf (0.99k) — Virtual font 8pt file
texmf/fonts/vf/rfbr/cm/cmslup/cmslup9.vf (0.99k) — Virtual font 9pt file
texmf/source/fonts/misc/cmslup.dtx (150.61k) — Full sources LATEX archive
texmf/tex/latex/fonts/misc/cmslup.sty (1.31k)
    — LATEX package to replace CM slanted
texmf/tpm/cmslup.tpm (1.73k) — TPM sample file

```

The archive is ready to use in fpT<sub>E</sub>X. To install package in any tds-compliant system, it is sufficient to unpack this archive with full path on `texmf` directory. The package is ready to run with T<sub>E</sub>X after filename database `ls-LR` will be updated.

### 1.3 EmT<sub>E</sub>X installation

The listed above `*.sty`, `*.mf`, `*.sty`, `*.tfm` files are in appropriate directories in `cmslupem.zip` archive. All are ready to run just after unpacking.

### 1.4 Pdftex, dvips and dvi<sub>pdf</sub> usage remark

As soon as `*.vf` and `*.tfm` files are in searchpath, no extra `*.map` nor `*.cfg` files are needed to configure: driver should use the Computer modern fonts in type1 or other format whatever is available in your system.

### 1.5 Unslanted punctuation in Plain or AmS<sub>T</sub><sub>E</sub>X

In order to use package, just load it in document preamble appropriate font:

```
\font\upit = cmslup10
```

and replace `\it` by `\upit` in your document. In  $\mathcal{A}\mathcal{M}\mathcal{S}$ -T<sub>E</sub>X with `amspt` you alternatively can put into preamble

```
\font\proclaimfont = cmslup10
```

### 1.6 Unslanted punctuation in L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub>

The easy way to use unslanted punctuation is just replace all the standard Computer modern text slanted font in Your document by `cmslup*` fonts. You can do it by printing a line

```
\usepackage{cmslup}
```

somewhere in the preamble of Your document.