
T_EX and Linguistics

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Over the past few years a small but persevering group of us have been working on gathering information about the use of T_EX for typesetting linguistics material. And for more than just the past few years, many people have been developing macros to deal with the specialized formatting which often arises in this field.

The information-gathering has yielded some useful results which have been announced and published in various places; this short piece simply collects that all into one article.

There are three main items to present here: the Technical Working Group (TWG), the `ling-tex` list, and an inventory of style files (`ling-mac.tex`).

1 The TWG for T_EX and Linguistics

This TWG was formed in July of 1994, following the previous half-year's activity on the `ling-tex` list (see below). While activity in the TWG has been quite minimal, the following people are now part of the group: Christopher Manning (Stanford University), Rei Fukui (University of Tokyo), myself as chair, and Stuart Shieber (Harvard University). The TWG maintains the inventory of macros (see below), and is planning a similar inventory of fonts.

The TWG is officially designated as WG-94-10 (SI-TWG = special interest). Our mandate currently reads as follows: "The main goal is to study and discuss the requirements for typesetting linguistics in T_EX and as a means of identifying, examining, testing, and comparing macros, fonts, style files and other aids for typesetting linguistics." The liaison to the Technical Council is Yannis Haralambous.¹

2 The `ling-tex` list

The purpose of `ling-tex` is to identify material which is available to typeset linguistics text with T_EX, and to also stimulate testing, improvements to code and documentation, and so on, all with as much cooperation and assistance from the original authors as possible. It is no coincidence that this is very similar to the mandate of the TWG: at the time the Technical Council was inviting people to consider starting up special interest working groups, it wasn't clear to me how much of an interest there might be in T_EX and linguistics. The list was a way to gauge that interest. Initial response was such that

by the end of its first month over 150 subscribers had joined. There was — and continues to be — interest: the list currently has some 250 subscribers.

Begun late in 1993, the list was originally set up by George Greenwade at SHSU. `ling-tex` has now moved to the University of Oslo, where it is maintained by Dag Langmyhr. To subscribe to the list, send a message to `ling-tex-requests@ifi.uio.no`. To post messages, address them to `ling-tex@ifi.uio.no`. A Web page has recently been started and will be ready for public viewing by the time you read this article. The address is <http://www.ifi.uio.no/~dag/ling-tex.html>.

3 The `ling-mac.tex` inventory

One immediate result of the `ling-tex` list was information about style files various people had developed to deal with such formatting issues as tree diagrams, examples, glosses, and attribute-value matrices, as well as bibliographies via BIB_TE_X files.² The first draft was circulated in early 1994; it is now regularly updated and posted to the `ling-tex` list. The inventory appears below; most material is for L^AT_EX rather than plain.

T_EX and L^AT_EX Macros for Linguistics

The following list is not intended to be exhaustive or complete; it is based on information which has come to light as people have posted messages to the `ling-tex` mailing list.

The material is all public domain, but the usual requests for citing authorship, not changing the contents without changing the file name, and so on apply. These are the results of volunteers efforts, and a desire to share those efforts with others; this should always be kept in mind. Constructive criticism, helpful suggestions, or offers of revised coding or wording are always welcome.

Index of `.sty` files

1. `avm-doc.tex`, `avm.sty`
2. `cgloss4e.sty`
3. `chomsky.sty`
4. `cjl-glosses.tex`
5. `cm-lingmacros.sty`
6. `covington.tex` `covington.sty`
7. `french.sty`
8. `glex.sty`
9. `gloss.tex`, `gloss.doc`.
10. `lingmacros.sty`
11. `lsalike.sty`, `lsalike.bst`

¹ For a complete list of Technical Working Groups, ftp the file `twg-list.tex` from CTAN in `tex-archive/usergrps` (`.dvi` and `.ps` files are also available).

² The `ling-mac.tex` file can be found on CTAN in `tex-archive/info/ling-mac.tex`. Contact the TWG for additions and corrections.

12. numquote.doc, numquote.tex, enum.sty
13. pstrees
14. pstricks
15. tree-dvips
16. voorbeeldom.sty

Details on various .sty files

1. **avm-doc.tex, avm.sty:**
Christopher Manning
(manning@csl.stanford.edu).
Macros for attribute-value matrices. Documentation available (but not printed in this collection).
csl.stanford.edu/pub/TeXfiles
2. **cgloss4e.sty:**
This is a modified version of `covington.sty` by Hap Kolb and Craig Thiersch. For glosses; as with `covington.sty`, does not require ampersands (&) to align sets of glossed items.
“[The f]ollowing borrows from M. Covington’s style files inspired by Midnight by M. de Groot, adapted to be used with `gbt3.sty`: examples beginning with `\ex` can contain glosses directly. Default is *Linguistic Inquiry* style with all lines in `\rm`.”
No documentation, but file is heavily commented. Posted to `ling-tex`; not currently available on archives.
3. **chomsky.sty:**
Michael Barr.
No documentation; however, file is heavily annotated. Some draft documentation by Ch. Thiele
4. **cjl-glosses.tex:**
Maintained by Ch. Thiele
(cthiele@ccs.carleton.ca).
Macros for glosses (seems to work in both plain \TeX and in \LaTeX). Variants for centred, flush right or left glosses, and others. Some documentation; needs testing before it can be put out on the archives.
Posted to `ling-tex` list; not currently available on archives.
5. **cm-lingmacros.sty:**
Christopher Manning and Avery Andrews
(Avery.Andrews@anu.edu.au).
Modified version of `lingmacros.sty` (see below).
csl.stanford.edu/pub/TeXfiles
6. **covington.tex, covington.sty:**
Michael Covington.
 \LaTeX macros for numbered examples, glosses, phrase structure rules, feature structures, discourse representation structures, exercises, reference lists, and miscellany. Documentation.
CTAN: `tex-archive/macros/latex/contrib/covington`
7. **French Style Files:**
Bernard Gaulle (gaulle@idris.fr).
French-based style files offering an easy-to-use multilingual scheme to work with other languages (English and German are currently offered). French patterns are up-to-date and there are a lot of test files. This package also offers a way to change your keyboard “on the fly” and to set your default at `initex` time, i.e. when creating your format. Two versions are released per year.
[ftp.univ-rennes1.fr:pub/GUTenberg/french](http://ftp.univ-rennes1.fr/pub/GUTenberg/french)
8. **glex.sty:**
Rob Norris; notes from Chet Creider.
 \LaTeX macros for numbered glosses. All three lines of a gloss are input; by contrast, `cjl-glosses.tex` only takes care of the first 2 lines, requiring the 3rd line, the translation, to be formatted independently. On the other hand, `glex.sty` works with tabs, while `cjl-glosses.tex` groups each set of word-1 over gloss-1 within braces.
[Availability not yet determined.]
9. **gloss.tex, gloss.doc:**
Part of the Midnight Macros set by Marcel van der Goot (marcel@cs.caltech.edu).
Macros for vertically aligning words in consecutive sentences. Documentation.
CTAN: `tex-archive/macros/macros/generic/midnight`
10. **lingmacros.sty:**
Emma Pease, CSLI, Stanford.
Macros for numbered examples, trees, AVM structures.
csl.stanford.edu/pub/TeXfiles
11. **lsalike.sty, lsalike.bst:**
Daniel S. Jurafsky, UC Berkeley.
“*lsalike* style file for $\BIB\TeX$. It implements a bibliography format which is very close to the LSA style sheet and resembles the journal *Language*. Among its advantages are that it does the lovely dashed lines for repeated bib entries that makes *Language* bibliographies so easy to read, and it also makes citations of the form ‘Chomsky (1965:134)’ very easy.”
ftp.icsi.berkeley.edu/pub/ai/jurafsky
12. **numquote.doc, numquote.tex, enum.sty:**
Bob Mercer, U. of Western Ontario.
 \LaTeX macros for automatic numbering of examples. Documentation.
Posted to `ling-tex` list; not currently available on archives.

13. **pstrees:**

Avery Andrews; requires **tree-dvips** (see below).
 “This package consists of a preprocessor and some macro-definitions, by which linguistics-style trees can be specified as convenient indented lists, with spacing and line-drawing done automatically.”

`csli.stanford.edu/pub/TeXfiles`

[Note: **pstrees** contains files which do *not* include the prefix “pstrees”; rather, the main files are **trees.****, which may cause confusion if one is not careful – Ch.]

14. **pstricks:**

Timothy Van Zandt (`tvz@princeton.edu`).

This is an extensive collection of PostScript macros that is compatible with most TeX macro packages, including Plain TeX, L^ATeX, $\mathcal{A}\mathcal{M}\mathcal{S}$ -TeX and $\mathcal{A}\mathcal{M}\mathcal{S}$ -L^ATeX. Included are macros for color, graphics, rotation, trees and overlays. “PSTricks puts the icing (PostScript) on your cake (TeX)!” Documentation.

CTAN: `tex-archive/graphics/pstricks`

15. **qtree:**

Alexis Dimitriadis

(`alexis@babel.ling.upenn.edu`).

Tree macros (written by Jeff Siskind) with a front end allowing trees to be specified in bracket notation. These macros take into account the size of the node labels when designing the tree; it is usually only necessary to give the bracketed structure to obtain beautiful trees. The node labels themselves can be arbitrarily complicated. The output is .dvi (not PostScript) directives, thus it can be previewed with xdvi.

Version 2 simplifies the labeling of non-terminating nodes and provides triangular “roofs”. Documentation is included in the distribution file. [Note: This is a new release, dating from February 1995.]

`ai.uga.edu:/pub/tex`

16. **tree-dvips:**

Emma Pease (`emma@csli.stanford.edu`).

CSLI PostScript drawing macros. These macros were originally created to draw the lines between nodes in the trees created by the tree macros in **lingmacros.sty**. They will only work with dvips version 541 or later (by Tomas Rokicki available on `labrea.stanford.edu`) but can be easily modified to be used with earlier versions of dvips and slightly less easily modified for other .dvi-to-PostScript converters. Documentation. [Formerly: **tree.tex**.]

`csli.stanford.edu/pub/TeXfiles`

17. **treetex:**

Anne Brueggemann-Klein and Derick Wood.

Extensive tree-drawing macro set. Documentation available. See also A. Brueggemann-Klein and Derick Wood, “Drawing trees nicely with TeX,” *Electronic Publishing* 2.2:101–115 (1989).

[Availability unknown.]

18. **voorbeeldom.sty:**

Werenfried Spit

(`spit@vm.ci.uv.es`, `spit@ific.uv.es`).

L^ATeX document-style option which defines an **enumerate**-like environment for typesetting linguistic examples. No documentation, but the .sty file has commented examples.

CTAN: `tex-archive/macros/latex/contrib/misc/`

What’s available where

CTAN: Most TeXware is available via ftp from CTAN (Comprehensive TeX Archive Network) sites, in the directory `/tex-archive`. CTAN sites include:

United Kingdom	<code>ftp.tex.ac.uk</code>
Huntsville, Texas	<code>ftp.shsu.edu</code>
Germany	<code>ftp.dante.de</code>

The CTAN holdings are too numerous to list here. For more information, get the **readme** files from the `/tex-archive` directory.

CSLI: In addition to CTAN, there has been a long-standing ftp site at Stanford:

`csli.stanford.edu/pub/TeXfiles`

U of Georgia: There is a smaller archive at the University of Georgia which contains files of local interest.

`ai.uga.edu:pub/tex`

U of Tokyo: There is a small archive at the University of Tokyo which contains the latest version of the phonetic font TSIPA and other related files.

`tooyoo.l.u-tokyo.ac.jp:pub/TeX/tsipa`

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