Using TEX

Quick Reference Guide
UCLA Math Series T–1
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The TEX family of programs are for producing typeset quality documents. This is a summary of their use.

Running TEX

In general, producing a TEX document involves at least three steps:

- write your document—an input file for TEX—using an editor;
- run TEX on it, producing a so-called DVI file;
- process the DVI file and send it to a printer.

editor $\rightarrow$ $\boxed{\textit{name}\texttt{.tex}}$ $\xrightarrow{\text{TEX}}$ $\boxed{\textit{name}\texttt{.dvi}}$ $\xrightarrow{filter}$ printer

Types of TEX

To run:	Type:
plain TEX	`tex` *name*`.tex`
LATEX	`latex` *name*`.tex`
SLITEX	`slitex` *name*`.tex`
AMS-TEX	`amstex` *name*`.tex`
LaTeX2e	`latex2e` *name*`.tex`

DVI Processors

To print on:	Use:
`aclps`	`dvips -Paclps` *name*`.dvi`
`aclps`,2-sided	`dvips -Pacl2ps` *name*`.dvi`
`gclps`	`dvips -Pgclps` *name*`.dvi`
`gclps`,2-sided	`dvips -Pgcl2ps` *name*`.dvi`
To preview:	Use:
In X Windows	`xdvi` *name*`.dvi`
On plain CRT	`dvi2tty` *name*`.dvi`

See the "Printing on Mathnet" page for printer names and locations, general printing tips, and how to print out only specific pages of your document.

File Naming Convention

The convention among these programs is that TEX input file names end in `.tex`; the corresponding output file name ends in `.dvi`. In turn, the DVI processors expect file names to end in `.dvi`.

If you name your files following these conventions, you don't have to type the suffix. For example, to process `paper.tex` using plain TEX, then print it on aclps, you can type just:

```
tex paper
dvips -Paclps paper
```

Companion Programs

These programs can help with document processing.

`bibtex` invokes BIBTEX, a bibliography processor which works with LATEX. (Described in the LATEX book.)

`detex` removes TEX and LATEX constructs. Useful with `spell`, for example.

`texmatch` checks for matching of braces, dollar signs, and LATEX begin-end pairs.

Some LATEX Style Options

`[fullpage]`	Makes all margins smaller
`[doublespace]`	"Double spaces" document
`[screen]`	Output for ASCII device
With `letter` style:	
`[ucla]`	Generates UCLA letterhead[1]
`[merge]`	Makes "form letters."

Including Graphics

Support for including graphics in TEX documents exists in several forms, but each has its drawbacks. Some possibilities are:

- `picture` mode in LATEX
- `psfig` to include POSTSCRIPT figures
- `sprite` for simple bitmaps
- PICTEX for relatively small objects

[1]Restricted to faculty and staff only.