



## LaTeX 2.09 and LaTeX 2e

The following information was taken by Sheldon Green, [agxsg@giss.nasa.gov](mailto:agxsg@giss.nasa.gov) on 14 May 1995, from "A Document Preparation System: LaTeX" by Leslie Lamport, 2nd edition and/or "LaTeX2e for authors," by the LaTeX3 Project Team, June 1994.

LaTeX2e was produced in an attempt to reconcile the various, sometimes incompatible, "flavors" of LaTeX which were developing. Some of these included the New Font Selection Scheme (NFSS), SLiTeX (for slides), AASTeX (the American Astronomical Society macros), etc. The major change to LaTeX2e is the method for trying to make the use of add-on packages more uniform by the introduction of "classes" and "packages." Most of the new commands are the "initial" commands, i.e., those which can appear only **before** the `\documentclass` command.

A few standard LaTeX commands have been modified and a few new commands added, notably:

- `\newcommand` (and related) commands, which now allow for an optional argument in newly defined commands
- `\ensuremath`

### Document Styles and Style Options

In LaTeX2e, documents begin with a `\documentclass` command. This replaces the LaTeX 2.09 `\documentstyle` command. The `\usepackage` command has been added and is used in conjunction with `\documentclass`.

LaTeX2e still understands the old `\documentstyle` command; if it is encountered, LaTeX2e enters **compatibility mode** in which most 2.09 input files should still be processed properly.

### Type Styles and Sizes

LaTeX 2.09 commands for changing type style, for example, `\tt`, still work similarly in LaTeX2e. The major difference is that `\sc` and `\sl` can no longer be used in math mode (except when LaTeX2e is in compatibility mode, see above).

However, a new set of commands have been added to allow separate (and independent) specification of

- Shape
- Series
- Family

These can be combined to form a wide variety of type styles. If a style you specify is not available on your computer, LaTeX2e produce a warning message and will substitute a style it thinks is similar.

### Getting Help

If you have further questions about LaTeX, call the Customer Support Center at (213) 740-5555 or e-mail [consult@usc.edu](mailto:consult@usc.edu).