

*mode*

1

**mode.** When T<sub>E</sub>X is processing your input in its stomach (see “anatomy of T<sub>E</sub>X”, p. ‘\anatomy’), it is in one of six *modes*:

- ordinary horizontal mode (assembling a paragraph)
- restricted horizontal mode (assembling an hbox)
- ordinary vertical mode (assembling a page)
- internal vertical mode (assembling a vbox)
- text math mode (assembling a formula that appears in text)
- display math mode (assembling a formula that appears on a line by itself)

The mode describes the kind of entity that T<sub>E</sub>X is putting together.

Because you can embed one kind of entity within another, e.g., a vbox within a math formula, T<sub>E</sub>X keeps track not just of one mode but of a whole list of modes (what computer scientists call a “stack”). Suppose that T<sub>E</sub>X is in mode  $M$  and encounters something that puts it into a new mode  $M'$ . When it finishes its work in mode  $M'$ , it resumes what it was doing in mode  $M$ .