horizontal mode   **1**

`horizontal mode.`   When TEX is assembling a paragraph or an hbox, it is in one of two *horizontal modes*: ordinary horizontal mode for assembling paragraphs and restricted horizontal mode for assembling hboxes. Whenever TEX is in a horizontal mode its stomach (see "anatomy of TEX", p. '`\anatomy`') is constructing a horizontal list of items (boxes, glue, penalties, etc.). TEX typesets the items in the list one after another, left to right.

A horizontal list can't contain any items produced by inherently vertical commands, e.g., `\vskip`.

- If TEX is assembling a horizontal list in ordinary horizontal mode and encounters an inherently vertical command, TEX ends the paragraph and enters vertical mode.
- If TEX is assembling a horizontal list in restricted horizontal mode and encounters an inherently vertical command, it complains.

Two commands that you might at first think are inherently horizontal are in fact inherently vertical: `\halign` (p. '`\halign`') and `\hrule` (p. '`\hrule`'). See page 286 of *The TEXbook* for a list of the inherently vertical commands.

You should be aware of a subtle but important property of restricted horizontal mode: *you can't enter ordinary horizontal mode when you're in restricted horizontal mode*. What this means in practice is that when TEX is assembling an hbox it won't handle paragraph-like text, i.e., text for which it does line breaking. You can get around this restriction by enclosing the paragraph-like text in a vbox within the hbox. The same method works if you want to put, say, a horizontal alignment inside an hbox.