paragraph 1

paragraph. Intuitively, a paragraph is a sequence of input lines that's ended by a blank line, by a \par command (p. '\@par'), or by an intrinsically vertical command, such as \vskip. More precisely, a paragraph is a sequence of commands that TEX processes in ordinary horizontal mode. When TEX has collected an entire paragraph, it forms it into a sequence of lines by choosing line breaks (see "line break", p. 'line+break'). The result is a list of hboxes with glue, interline penalties, and interspersed vertical material between them. Each hbox is a single line, and the glue is the interline glue.

 $\mathbf{2}$ 

TEX starts a paragraph when it's in a vertical mode and encounters an inherently horizontal command. In particular, it's in a vertical mode when it's just finished a paragraph, so the horizontal material on the line after a blank input line starts the next paragraph in a natural way. There are many kinds of inherently horizontal commands, but the most common kind is an ordinary character, e.g., a letter.

The \indent and \noindent commands (pp. '\indent', '\noindent') are also inherently horizontal commands that tell TeX either to indent or not to indent the beginning of a paragraph. Any other horizontal command in vertical mode causes TeX to do an implicit \indent. Once TeX has started a paragraph, it's in ordinary horizontal mode. It first obeys any commands that are in \everypar. It then proceeds to collect items for the paragraph until it gets a signal that the paragraph is ended. At the end of the paragraph it resets the paragraph shape parameters \parshape, \hangindent, and \looseness.

T<sub>E</sub>X ordinarily translates a blank line into \par. It also inserts a \par into the input whenever it's in horizontal mode and sees an intrinsically vertical command. So ultimately the thing that ends a paragraph is always a \par command.

When TEX receives a \par command, it first fills out<sup>1</sup> the paragraph it's working on. It then breaks the paragraph into lines, adds the resulting list of items to the enclosing vertical list, and exercises the page builder (in the case where the enclosing vertical list is the main vertical list). If the paragraph was ended by an intrinsically vertical command, TEX then executes that command.

 $<sup>^{\</sup>rm 1}$  More precisely, it executes the commands:

<sup>\</sup>unskip \penalty10000 \hskip\parfillskip

thus appending items for these commands to the end of the current horizontal list.