

*rule*

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**rule.** A *rule* is a solid black rectangle. A rule, like a box, has width, height, and depth. The vertical dimension of the rectangle is the sum of its height and its depth. An ordinary horizontal or vertical straight line is a special case of a rule.

A rule can be either horizontal or vertical. The distinction between a horizontal rule and a vertical one has to do with how you produce the rule, since a vertical rule can be short and fat (and therefore look like a horizontal line), while a horizontal rule can be tall and skinny (and therefore look like a vertical line). T<sub>E</sub>X's notion of a rule is more general than that of typographers, who think of a rule as a line and would not usually call a square black box a rule.

You can produce a horizontal rule using the `\hrule` command and a vertical rule using the `\vrule` command (p. ‘`\vrule`’). For example, the control sequence `\hrule` by itself produces a thin rule that runs across the page, like this:

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The command ‘`\vrule height .25in`’ produces a vertical rule that runs .25 inches down the page like this:

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There are two differences between horizontal rules and vertical rules:

- 1) For a horizontal rule, T<sub>E</sub>X defaults the width to the width of the smallest box or alignment that encloses it. For a vertical rule, T<sub>E</sub>X defaults the height and depth in the same way. (The default is the size that you get if you don't give a size explicitly for that dimension.)
- 2) A horizontal rule is an inherently vertical item that cannot participate in a horizontal list, while a vertical rule is an inherently horizontal item that cannot participate in a vertical list. This behavior may seem strange at first but there is good reason for it: a horizontal rule ordinarily runs visually from left to right and thus separates items in a vertical list, while a vertical rule ordinarily runs visually from top to bottom and thus separates items in a horizontal list.

If you construct a rule with three explicit dimensions, it will look the same whether you make it a horizontal rule or a vertical rule. For example, the command ‘`\vrule height1pt depth2pt width3in`’ produces this horizontal-looking rule:

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You'll find a precise statement of T<sub>E</sub>X's treatment of rules on pages 221–222 of *The T<sub>E</sub>Xbook*.