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\spacefactor    [ <number> parameter ]
\spaceskip     [ <glue> parameter ]
\xspaceskip    [ <glue> parameter ]
\sffcode <charcode> [ <number> table entry ]

```

These primitive parameters affect how much space T_EX puts between two adjacent words, i.e., the interword spacing. The normal interword spacing is supplied by the current font. As T_EX is processing a horizontal list, it keeps track of the space factor f in `\spacefactor`. As it processes each input character c , it updates f according to the value of f_c , the space factor code of c (see below). For most characters, f_c is 1000 and T_EX sets f to 1000. (The initial value of f is also 1000.) When T_EX sees an interword space, it adjusts the size of that space by multiplying the stretch and shrink of that space by $f/1000$ and $1000/f$ respectively. Thus:

- 1) If $f = 1000$, the interword space keeps its normal value.
- 2) If $f < 1000$, the interword space gets less stretch and more shrink.
- 3) If $f > 1000$, the interword space gets more stretch and less shrink.

In addition, if $f \geq 2000$ the interword space is further increased by the “extra space” parameter associated with the current font.

Each input character c has an entry in the `\sffcode` (space factor code) table. The `\sffcode` table entry is independent of the font. Usually T_EX just sets f to f_c after it processes c . However:

- If f_c is zero, T_EX leaves f unchanged. Thus a character such as ‘)’ in plain T_EX, for which f_c is zero, is essentially transparent to the interword space calculation.
- If $f < 1000 < f_c$, T_EX sets f to 1000 rather than to f_c , i.e., it refuses to raise f very rapidly.

The `\sffcode` value for a period is normally 3000, which is why T_EX usually puts extra space after a period (see the rule above for the case $f \geq 2000$). Noncharacter items in a horizontal list, e.g., vertical rules, generally act like characters with a space factor of 1000.

You can change the space factor explicitly by assigning a different numerical value to `\spacefactor`. You can also override the normal interword spacing by assigning a different numerical value to `\xspaceskip` or to `\spaceskip`:

- `\xspaceskip` specifies the glue to be used when $f \geq 2000$; in the case where `\xspaceskip` is zero, the normal rules apply.
- `\spaceskip` specifies the glue to be used when $f < 2000$ or when `\xspaceskip` is zero; if `\spaceskip` is zero, the normal rules apply. The stretch and shrink of the `\spaceskip` glue, like that of the ordinary interword glue, is modified according to the value of f .

See page 76 of *The T_EXbook* for the precise rules that T_EX uses in calculating interword glue, and pages 285–287 of *The T_EXbook* for the adjustments made to `\spacefactor` after various items in a horizontal list.