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## 30. The Tilt Effect

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Tilting creates characters that have a “tilted” baseline. Each character in the font can be rotated by an arbitrary angle. You cannot rotate a character by more than 90 degrees. The tilt effect in combination with rotating, mirroring, and reversing can produce a font that is effectively tilted by any angle.

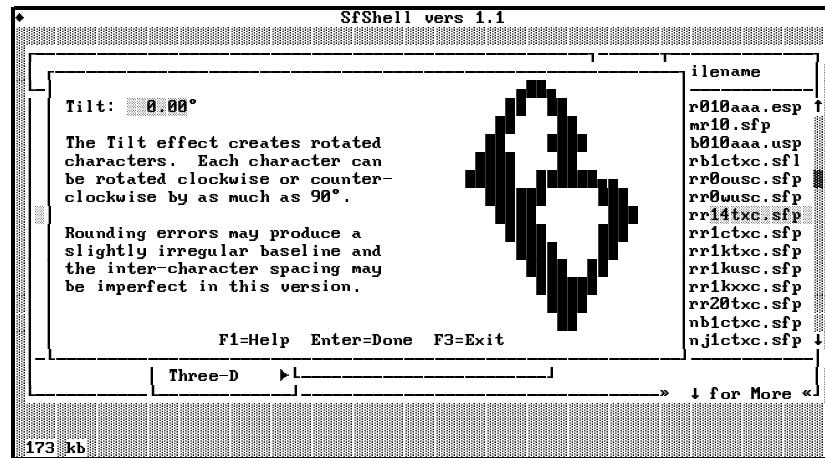


Figure 30.1. The Tilt panel

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### 30.1. Options

#### Tilt

The tilt specifies the amount of tilt in degrees. A positive tilt value creates a font with a baseline that runs down and to the right. A negative value creates a font that runs up and to the right.

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### 30.2. Technically Speaking

This effect is one of the most time consuming to run (on a 12pt font it may require evaluating three trigonometric functions, a square root, and several floating point and integer operations more than one and a half million times—and it’s worse for bigger fonts). It creates a new character box large enough to hold the “tilted” original box and performs a trigonometric translation of every pixel into the new box. Although the effect makes some small changes to the top offset and left offset values for each character (in an attempt to correct for translation errors inherent in translating from one square grid system to another), the character dimensions are basically unchanged.

This effect creates a rotated font, but you still need a sufficiently flexible typesetting program to set the rotated text. Simply creating a rotated font will not, for example, cause your run-of-the-mill word processor to print it on an angle!

The horizontal spacing in a tilted font is sometimes imperfect. It is unclear why this is the case. Hopefully, a future version of Sftware will correct this problem.