

New Technical Notes

Macintosh



Developer Support

TextEdit Record Size Limitations Revisited

Text

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This Technical Note describes another limit on the length of a TextEdit record that was previously undocumented.

The TextEdit chapters in *Inside Macintosh* document the 32K character limit on a TextEdit record length. They do not, however, discuss the more subtle constraint on the size of the `destRect`. By definition, the `destRect` uses integer values for the top-left and bottom-right boundary points. It is possible to have values too large for the `destRect` without reaching the `teLength` limit.

The `nLines` field gives the number of lines in the edit record, and the `lineHeight` field specifies the vertical distance from the ascent line from one line of text to the ascent line of the next line. In styled TextEdit, the `lineHeight` may vary for each line depending on the font and font size. These values are entries in the `lineHeight` table.



Figure 1—LineHeight

The product of the `lineHeight` (or the largest `lineHeight` value in styled TextEdit) and `nLines` gives a good approximation, in pixels, of the vertical dimension of the `destRect` of the `TERec` used. If this value is greater than 32,768, then unpredictable and erratic behavior may result.

For example:

2,400 lines of Chicago 12 point yields `nLines` = 2,400 and `lineHeight` = 16.
`nLines` * `lineHeight` = 2400 * 16 = 38,400. This is above the 32K limit.

1,200 lines of Times 24 point yields `nLines = 1,200` and `lineHeight = 30`.
`nLines * lineHeight = 1200 * 30 = 36,000`. This is above the 32K limit.

In both of the examples above, the number of characters in the edit record was less than 32,768.

Check All Constraints

Both `TELength` and the size of the `destRect` must be under the 32K limit. You can compute an approximate vertical height of the `destRect` by finding the product of `nLines` and `lineHeight` (or the largest `lineHeight` value in styled `TextEdit`).

Further Reference:

- *Inside Macintosh*, Volumes I-371 & V-259, `TextEdit`
- `M.OV.ManagerAbuse`