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## Using the lineStarts Array to Determine Line Length

The lineStarts array is a field in the TextEdit record that contains the offset position of the first character of each line. This array has the following boundary conditions:

- The first entry has index 0 and value 0.
- The last entry in the array has index nLines and value teLength (hence, there are nLines + 1 entries).
- The beginning of the first line is given by lineStarts[0], and the beginning of the second line is given by lineStarts[1]; hence, the length of the first line is given by lineStarts[1] - lineStarts[0].
- The maximum number of entries is 16,000.

To determine the length of a line, you can use the information contained in the lineStarts array and the nLines field. For example, if you want to determine the length of the line *n* (where *n* = 0 for the first line), subtract its start location (contained in the array entry with index *n*) from its end location (contained in the array with index *n* + 1):

```
lengthOfLineN = ((*myTE)->.lineStarts)[n+1] -  
                ((*myTE)->.lineStarts)[n];
```

The terminating condition for this measurement is when *n* is equal to nLines plus 1.

It is important not to change the information contained in the lineStarts array.