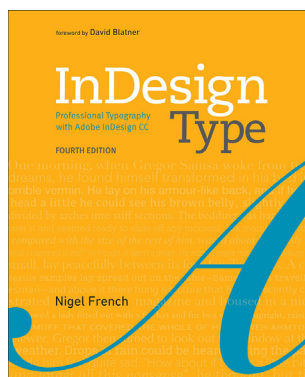
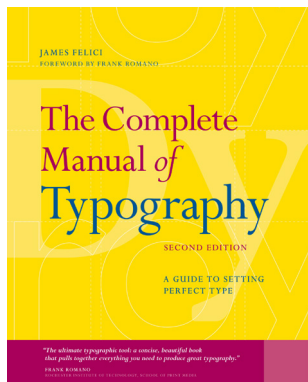


Proportions of a text line

In the chapter 9 of famous book J. Felici The Complete Manual of Typography it is discussed in detail how the column width, the pointsize and the leading are related. But is there a clear dependence of the leading on the distance between the ascender and descender elements? At least such an estimated, as in Felici's book, the ratio of the measure, the pointsize and the leading. I've been trying to find it for a long time, but without success.



And in 2020, an excellent book by Nigel French was published in Moscow, Nigel French. InDesign Type and in it an interesting picture was shown (see below). Here, however, the leading was called the distance between the ascenders and descenders.

But it was important for me to see that it is possible to find correlation between the width of the space in text and the ascenders – descenders vertical space, and that it is desirable to have

this distance approximately the same as the width of the space. By default the distance between words in InDesign is equal to a quarter of Em-space.

Let me clarify once again that here, judging by the picture, the distance between words is compared with the space between the remote elements of neighboring lines.

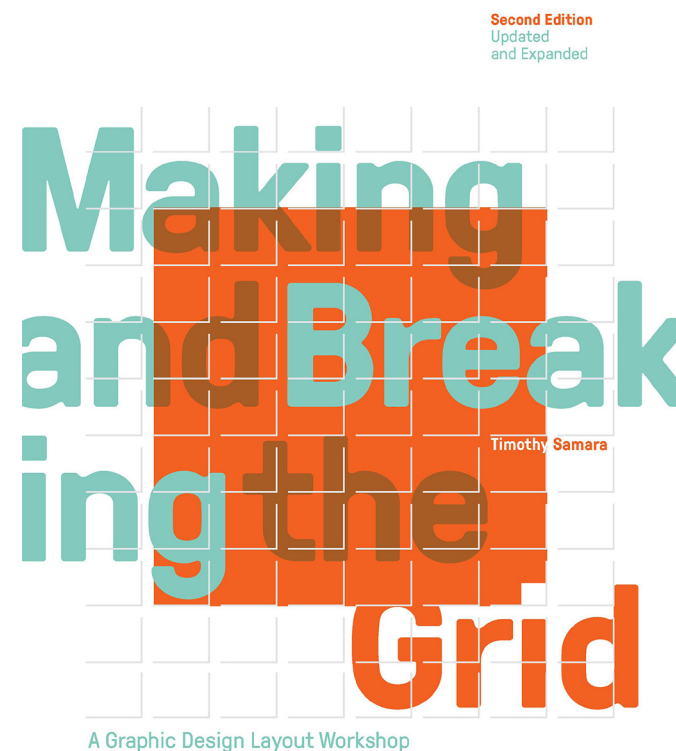
How will the struggle for existence, b
discussed in the last chapter, act in rega
variation? Can the principle of selection, v
we have seen is so potent in the hands of
apply under nature? I think we shall see i
can act most efficiently. Let the endless nu
of slight variations and individual differ
occurring in our domestic productions, a
a lesser degree. in those under nature. he l

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Left: need to add extra leading to have space between the lines equal the space between the words. *Right:* leading as pace between descenders one line and ascenders next one is almost the same as spaces in text.

Then suddenly I found the interesting book with additional useful information on this subject: Timothy Samara Making and Breaking the Grid.

That's how unusual its cover looks, with a word break without a hyphenation sign

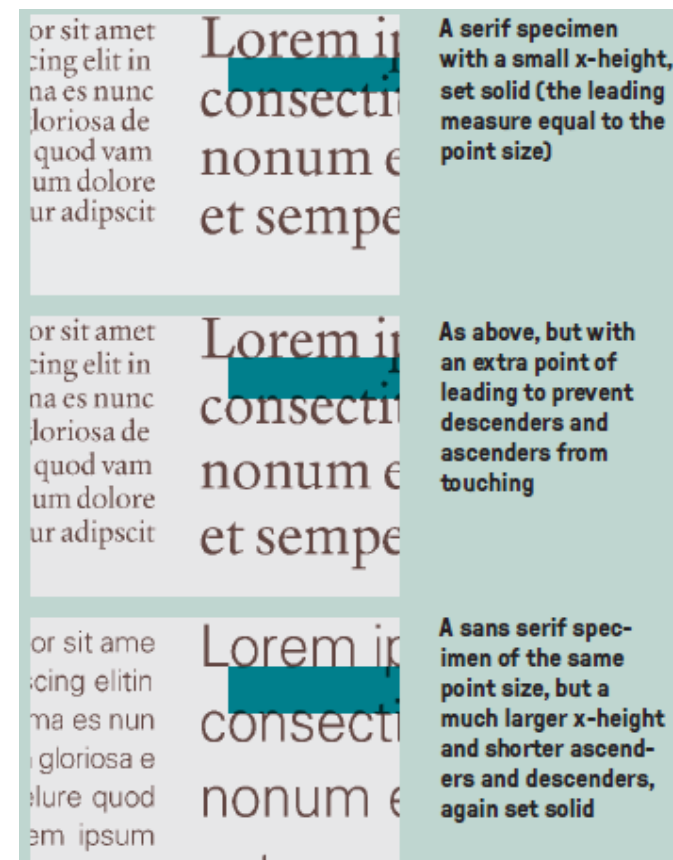


And in this book, on page 50, there is a drawing explaining the proportions of the various spaces in the text line:



The green rectangles in the center are greatly enlarged spaces between letters, words, and lines. The fourth rectangle is the vertical space between paragraphs, and the last one is the gutter between columns.

There is no emphasis on the width of the space between the ascenders and descenders, since, according to the author, it depends on the font used, and there is an example of this on page 46:



At the top: in the serif font, the ascenders&descenders of adjacent lines are very close to each other, and in

the middle picture the same text, but the leading is enlarged to make more space between the this elements. The lower figure is a sans-serif font, in which the size of the ascenders&descenders is smaller, they do not touch each other, and you can leave such an leading as in the upper picture.

This sequence of rectangles of different widths to indicate the subordination of the sizes of the elements of a text string is an excellent demonstration of the internal and external rule.

Based on all these pictures, we can formulate inner and outer rule for the design of text strings:

- 1 the distance between the ascenders and descenders of adjacent rows should be close to the size of the space;
- 2 the distance between the base line of the string and median — the line of

lowercase letters of the string below it should not be less than the height of the lowercase letter.

Pay attention to this points: a) the picture from N. French's book clearly shows the distance between the ascenders and descenders; b) in the pictures of T. Samara, the distance between the baseline of one line and the line of lowercase letters of the next is marked in color.

What do these points a and b have in common? The fact that these dimensions *affect* the proportions of the rows and the fact that its values are *not displayed* on the screen.

The script help us

But you can use a script to extract these dimensions from the selected text — the height of a lowercase letter, the width of a space, the distance be-

tween the ascenders and descenders of neighboring lines, and the distance between neighboring lines, display them on the screen, and try to select the leading, estimating at the same time the distance between the ascenders and descenders and lines.

So, we need to highlight the paragraph. It should not be aligned to the base grid and shift the baseline, all the characters are of the same size and font, and run this script. To understand how it works, let's highlight the paragraph with the font Cambria 10/10.

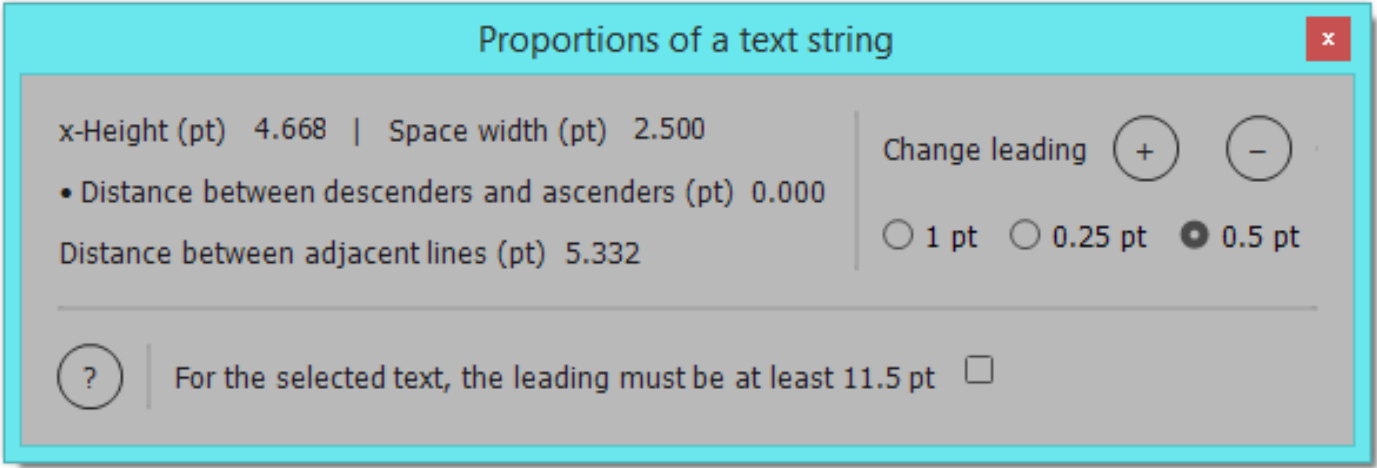
The working window of the program is shown on the next page. There is no information about the selected font, pointsize and leading, as they are on the screen in the control panel.

In the working window there will be not only information in the form

of numbers, there are also two pointers — whether these conditions ① and ② are met or not, — the black points left words «Distance between». In this picture, there is such a dot in the first line, which means that the condition ① not met.

The parameters of the selected paragraph at the time of the script launch are collected in the first row of the table. It can be seen that one of the rules is not fulfilled, and it is necessary to increase the leading. You can change the leading using the buttons with the selected step, but in this case it is more expedient to select the checkbox in the bottom line and set the leading that is calculated according to the evaluation formula from chapter 9 of Felici's book, in this case it is 11.5 pt.

The distance between the ascenders and descenders has become 1.500 pt,



the distance between adjacent lines is 6.832 pt. But the black dot has not disappeared, because the distance between the ascenders and descenders is less than or equal to the size of the space.

And only with an leading of 12.75 pt, this distance became 2.750 pt, which is more than the value of the space, and this point disappeared. We got the correct initial value of the leading for this pointsize.

Leading	Between asc&desc	Between lines	①	②
10	0.000	5.332	–	+
11.5	1.500	6.832	–	+
12	2.000	7.332	–	+
12.5	2.500	7.832	–	+
12.75	2.750	8.082	+	+

Cambria Regular 10/10 x-Height = 4.668 pt, space width = 2.500 pt. Leading at least 11.5 pt

Try it!

There is an idml-file in the Info folder, and a table from the previous page, and you can see what sizes will be with different leading.

The most important thing in all this is that with this script we no longer set the leading value blindly, at random, only because we saw such a pointsize and leading in another book, but can change it by evaluating the result according to specific criteria.

Mikhail Ivanyushin

dotextok@gmail.com

<https://shop.dotextok.ru/en/>

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