

The alignments, or heights, of glyph groups, like uppercase, and lowercase, as well as lowercase “extenders”, ascenders and descenders, have a great influence on the appearance and composition of typography. In the parametric axes, these are called the “Y transparent” axes, i.e. the axes that add or subtract white space to the heights.

Each script in the world has its own logic in its alignments determining how the Y transparencies react to variation of weight, width and optical size. As a font’s lowercase grows a little taller as gets bolder for example, to maintain a good visual relationship with the lighter weights.

And each script has a logic for what has to happen to other alignments, as a result of variations for both stylistic and compositional variation. In Latin, for example, the Uppercase height, and the lowercase ascender heights have a close relationship to each other, with the Uppercase usually the parent of the lowercase ascender, determining how tall b,d,f,h and etc should be.

The descender, on the other hand, are defaulted to some depth that’s visually compatible with the ascender height, but in variable typography the depth of the descenders can be tied to line spacing, to help the reader by either providing more or less space between the descenders and the next line of text.

The use of YTDE, which represents descender depth, can be used to effect the descenders of a glyph, of a line of text, or a paragraph of text. It can also be used to adjust the descenders of one font family to match another.

“Thx”, shows the primary heights and depths of Latin type.

“grey note” shows the descenders of a line of display type adjusting for tighter vertical positioning without distracting collisions.

Facing page: the bold headline shows shortening a single descender in a line to reduce space not required for most readers.

Then, three pairs of samples demonstrate long descenders for long lines, and short descenders for short lines, as the size increases over the same column width.

A long S train, in a mass rush hour. A designer, standing and staring.

A long S train, in a mass rush hour. A designer, standing and staring at a screen packed with twenty-six characters, neck craned as if someone’s been tugging at it. People fat and thin, getting on and off.

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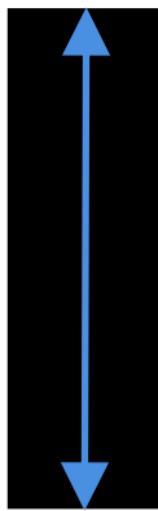
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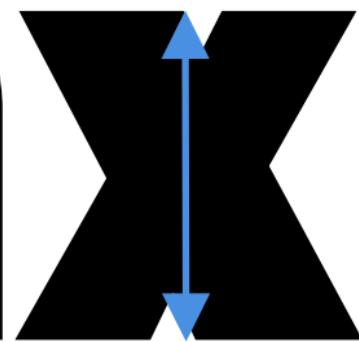
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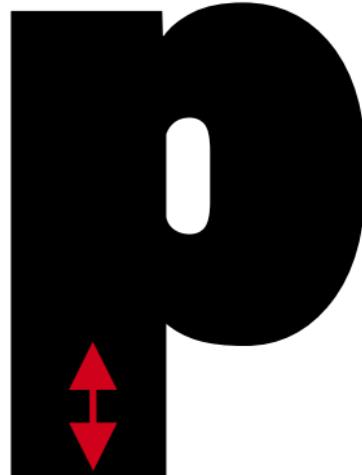
ASCENDER



X HEIGHT



DESCENDER



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An enormous S train, in a jam-packed rush hour. A large designer, standing and staring at a tiny screen with about twenty-six characters, neck very long as if someone's been tugging at it.

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An enormous S train, in a jam-packed rush hour. screen with about twenty-six characters, neck ve

An enormous S train, in a screen with about twenty-

Every typeface has them. Some have dozens. And a variable font like Roboto Extremo can have thousands. Extremo, is

(And that, is just whole numbers.) So the question: why would

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From a stamp-sized smartwatch to a VR panorama,

The more points on the weight axis, the more

stock set of Light, Regular, Heavy. Without even needing different typefaces for display and body text. Both are there, in the Roboto Extremo design space, your perfect body font a point on the same

Weight is the registered, ^g axes supported in CSS3.0. Ending the hard border between display and body

master, letting you decide the optimal difference between heads,

changing other axes, like width. The beauty of variable fonts is

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SPACING AND LEADING ONGOING ISSUES

TWO-HOUR EFFORT LEADS TO BREAKTHROUGH

COUNTERWIDTH POSITED AS ANSWER

case character used as solution, with reasons

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or bylines: all in answer at
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INTRODUCTION

On the train, he was looking intently at the screen, examining the spacing between characters and lines of text. Witnesses described a posture of intense concentration as he examined the screen. Two hours later, he was seen again in the vicinity of the Port Authority Building, talking to someone about the same subject. He suggested a solution and illustrated how it might work with the character 'B'.

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INTRODUCTION

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On that simple x/y graph of height versus width, the vertical axis is big. Because tall text, even absurdly so, remains readable. (Even when it looks weird.) But the horizontal axis is different. Human vision just isn't set up for extreme character width. In the words of one type designer: "you stop when the glyph looks like a tomato."

Which is why the width axis in Roboto Extremo (CSS: wdh, working on the property font-stretch) is conceptually the "shortest" of the 11 axes the typeface uses. It restricts width to values that look good at all points in the design-variable space. (That is a range of 25% to 151% from its 100% normal.) But in variable typography, its how well this registered axis plays with other axes that matters.

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A designer, standing and staring at a screen packed with twenty-six characters, neck craned as if someone's been tugging at it. People fat and thin, getting on and off. The chap in question gets annoyed with one of the characters. Lowercase d jostling adjacent glyphs, snivelled spacing and leading too tight. When he sees empty space he throws his concentration into it. Two hours later, I come across him on 8th Avenue, in front of the vast Port Authority Building. He's with a friend who's saying, "You ought to increase the size of that counter." He shows him where (the bowl of the B) and why.

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