

Grades in a print world

Fonts of different styles on the same width have been in use typographically since mechanical typesetting required regular and italic fonts on the same widths, aka duplexing. Controlling the weight of type in production processed was left to the people and machinery spreading the ink, and controlled the speed and pressure of the presses. With digital type, once much or the physical process was streamlined, typographers started asking for multiple weights on the same width as the most effective way to deal with the mixture of offset and gravure processes in use in single publication. Later, after a study organized by the Poynter Center for Media studies on typefaces for newspapers, Font Bureau developed multiple grades of a single regular style of Poynter Old Style to enhance the production capabilities of newspapers.

Grades in responsive use

Grades in variable fonts have the same production advantages as grades in the past for print. Variable fonts, however, allow responsive production via suggestions for use in different conditions. Grade capability in variations, unlike working for a single style, typically works throughout the whole design space. So, if a variable font has grades, all the weights, widths, optical sizes or custom variable axes, can have grades. Grades alone, or used with other parametric axes, can improve for different rendering conditions, dark mode conditions, or simple for visually stylistic variation.

Topic/Grades/Examples

Design space locations are provided as text in each description for the editorial composition and the playground.

Live type should be used for these examples.

Example/Dark Moding

Caption: Text at small sizes can be harder to read when the black and white are reversed. The white tends to weaken slightly as the contrast switches on the details of letters.

H3 Intro text leads reader into the article by the nose, with grace and dignity and a little pithy charm. Typeface has changed to the appropriate optical size by the miracle of modern typography.

wght 400, wdth 100, opsz 10, GRAD 88, XTRA 402, YOPQ 50, YTLC 500, YTSE 18.24, XOPQ 88, XTCH 911, YTCH 907, YTAG 750, YTDE 250, YTUC 750, YTRA 1000, PWGT 88, PWDT 402

T1 Intro text leads reader into the article by the nose, with grace and dignity and a little pithy charm. Typeface has changed to the appropriate optical size by the miracle of modern typography.

wght 400, wdth 100, opsz 10, GRAD 88, XTRA 402, YOPQ 50, YTLC 500, YTSE 18.24, XOPQ 88, XTCH 911, YTCH 907, YTAG 750, YTDE 250, YTUC 750, YTRA 1000, PWGT 88, PWDT 402

Caption: Grades, used even in small amounts, can add the strength of the text back in with no change to format.

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wght 400, wdth 100, opsz 10, GRAD 88, XTRA 402, YOPQ 50, YTLC 500, YTSE 18.24, XOPQ 88, XTCH 911, YTCH 907, YTAG 750, YTDE 250, YTUC 750, YTRA 1000, PWGT 88, PWDT 402

T1 Intro text leads reader into the article by the nose, with grace and dignity and a little pithy charm. Typeface has changed to the appropriate optical size by the miracle of modern typography.

wght 400, wdth 100, opsz 10, GRAD 96, XTRA 402, YOPQ 50, YTLC 500, YTSE 18.24, XOPQ 88, XTCH 911, YTCH 907, YTAG 750, YTDE 250, YTUC 750, YTRA 1000, PWGT 88, PWDT 402

(Dev: picture shown above is for example's playground only. Final editorial version should just include captions* and sample text, not values.)

Values are below.

wght 400, width 100, opsz 10, GRAD 88, XTRA 402, YOPQ 50, YTLC 500, YTSE 18.24, XOPQ 88, XTCH 911, YTCH 907, YTAS 750, YTDE 250, YTUC 750, YTRA 1000, PWGT 88, PWDT 402

wght 400, width 100, opsz 10, GRAD 88, XTRA 402, YOPQ 50, YTLC 500, YTSE 18.24, XOPQ 88, XTCH 911, YTCH 907, YTAS 750, YTDE 250, YTUC 750, YTRA 1000, PWGT 88, PWDT 402

vs

wght 400, width 100, opsz 10, GRAD 88, XTRA 402, YOPQ 50, YTLC 500, YTSE 18.24, XOPQ 88, XTCH 911, YTCH 907, YTAS 750, YTDE 250, YTUC 750, YTRA 1000, PWGT 88, PWDT 402

wght 400, width 100, opsz 10, GRAD 96, XTRA 402, YOPQ 50, YTLC 500, YTSE 18.24, XOPQ 88, XTCH 911, YTCH 907, YTAS 750, YTDE 250, YTUC 750, YTRA 1000, PWGT 88, PWDT 402

(dev: for close comparison, if Each pair of specimens (before on B & W, and after on Black & white), should abut vertically, with the second caption dividing the specimens as placed above.)

Example/Light Rendering

Caption: Light weight and/or grey text may be difficult to use at small sizes, when

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opsz 11, wght 174, wdth 100, GRAD 0, XTRA 359, POPS 0, PWDT 712, PWGT 94, UDLN -49, XOPQ 94, YTDD 0, YTAD 563, YTDE -203, YAS 750, YTUC 712, YTLC 514, YOPQ 77, YTRA 0

T1 Intro text leads reader into the article by the nose, with grace and dignity and a little pithy charm. Typeface has changed to the appropriate optical size by the miracle of modern typography.

opsz 11, wght 174, wdth 100, GRAD 0.42, XTRA 359, POPS 0, PWDT 712, PWGT 94, UDLN -49, XOPQ 94, YTDD 0, YTAD 563, YTDE -203, YAS 750, YTUC 712, YTLC 514, YOPQ 77, YTRA 0

(Dev: picture shown above is for example's playground only. Final editorial version should just include captions* and sample text, not values.)

opsz 11, wght 174, wdth 100, GRAD 0, XTRA 359, POPS 0, PWDT 712, PWGT 94, UDLN -49, XOPQ 94, YTDD 0, YTAD 563, YTDE -203, YAS 750, YTUC 712, YTLC 514, YOPQ 77, YTRA

VS.

opsz 11, wght 174, wdth 100, GRAD 0.42, XTRA 359, POPS 0, PWDT 712, PWGT 94, UDLN -49, XOPQ 94, YTDD 0, YTAD 563, YTDE -203, YAS 750, YTUC 712, YTLC 514, YOPQ 77, YTRA 0

Example/Style

Caption: Text can be styled in an part of a variable font's design space. Here the Lightest and widest Roboto Delta experiment is having grades applied to create an area of text with a different weight, without change to the layout.

T2 DESIGNING SHAPES IN AND WITH TEXT HAS BEEN A TRADITION IN GRAPHIC DESIGN FOREVER. BUT COMPOSING IT WAS A LOT OF TROUBLE IN SOME CASES WHERE THE DESIRE WAS FOR THE APPEARANCE OF TEXT TO CHANGE, BUT CHANGING THE APPEARANCE ALSO CHANGES THE LAYOUT OF THE TEXT. SEVERAL FONT STYLES MADE ON THE SAME WIDTH CAN HELP, BUT THE UNTIMATE SOLUTION IS TO HAVE A

FLUID RANGE OF STYLES THAT ALLOW THE SEPARATION OF THE TEXTURAL AND GRAPHICAL NATURES OF LETTERS -- IF IT COULD ONLY EXIST.

opsz 15, wght 100, wdth 125, GRAD 0, XTRA 359, POPS 0, PWDT 712, PWGT 94, UDLN -49, XOPQ 94, YTDD 0, YTAD 563, YTDE -203, YAS 750, YTUC 712, YTLN 514, YOPQ 77, YTRA 0

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opsz 15, wght 100, wdth 125, GRAD 1, XTRA 359, POPS 0, PWDT 712, PWGT 94, UDLN -49, XOPQ 94, YTDD 0, YTAD 563, YTDE -203, YAS 750, YTUC 712, YTLN 514, YOPQ 77, YTRA 0

(Dev: above picture shown above is best I can do in Typetools;). Final editorial version should include only the top type specimen, with the letters that are entirely inside the circle at the grade of the second image. The circle is there for guidance only and should not be shown in the editorial

(Dev: please note these are not the default wght and wdth, but a light wide style.

psz 15, wght 100, wdth 125, GRAD 1, XTRA 359, POPS 0, PWDT 712, PWGT 94, UDLN -49, XOPQ 94, YTDD 0, YTAD 563, YTDE -203, YAS 750, YTUC 712, YTLN 514, YOPQ 77, YTRA 0

Plus, with the letters that are entirely inside circle shown.

opsz 15, wght 100, wght 125, GRAD 1, XTRA 359, POPS 0, PWDT 712, PWGT 94, UDLN -49, XOPQ 94, YTDD 0, YTAD 563, YTDE -203, YTAAS 750, YTUC 712, YTLC 514, YOPQ 77, YTRA 0

(Dev: text for above is below: Text shown has typo corrected here.)

DESIGNING SHAPES IN AND WITH TEXT HAS BEEN A TRADITION IN GRAPHIC DESIGN FOREVER. BUT COMPOSING IT WAS A LOT OF TROUBLE IN SOME CASES WHERE THE DESIRE WAS FOR THE APPEARANCE OF TEXT TO CHANGE, BUT CHANGING THE APPEARANCE ALSO CHANGES THE LAYOUT OF THE TEXT. SEVERAL FONT STYLES MADE ON THE SAME WIDTH CAN HELP, BUT THE ULTIMATE SOLUTION IS TO HAVE A FLUID RANGE OF STYLES THAT ALLOW THE SEPARATION OF THE TEXTURAL AND GRAPHICAL NATURES OF LETTERS -- IF IT COULD ONLY EXIST