The specification began with the requirement of no apparent change to the regular weight (CSS 400), which is to be assigned an optical size axis value of 14 pts. and 100% width, (CSS wdth).

The contour point structure had to be designed to enable large amounts of weight and width to be possible as well be suitable outlines for all possible parametric axes.

The lone composite in the ASCII set, "%", is restructured to match theat of the figure zero, and is composed from a superior figure zero and fraction bar.

The alignments of the font match the original on a different size em, changing from 1000 to 2000 to ensure future accuracy of the broad design space.

opsz 14 @14pt

ABCDEFGHIJKLMNOPQRSTUV WXYZ&abcdefghijklmnopqrst uvwxyz0123456789.,:;!?()[] {}/|\#\$%@'"*~^_`=+<>-

opsz 14 @42pt

ABCDEFGHIJKLM NOPQRSTUVWXY Z&abcdefghijklm nopqrstuvwxyz01 23456789.,:;!?() []{}/|\#\$%@'"*~^ =+<>-

opsz 14 @28pt

Two ideas altered the design of the printing press radically: First, the use of steam power for running the machinery, and second the replacement of the printing flatbed with the rotary motion of cylinders. Both elements were first successfully implemented by the German printer Friedrich Koenig in a series of press designs devised between 1802 and

opsz 14 @14pt

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HHAHH HHBHH HHCHH HHDHH HHEHH HHFHH HHGHH HHHHH HHIHH HHJHH HHKHH HHLHH HHMHH HHNHH HHOHH HHPHH HHQHH HHRHH HHSHH HHTHH HHUHH HHVHH HHWHH HHXHH HHYHH HHZHH nnann nnbnn nncnn nndnn nnenn nnfnn nngnn nnhnn nninn nnjnn nnknn nnlnn nnwnn nnxnn nnonn nnpnn nnqnn nnrnn nnsnn nntnn nnunn nnvnn nnwnn nnxnn nnynn nnznn 00000 00100 00200 00300 00400 00500 00600 00700 00800 00900 HH<HH HH(HH HH[HH HH{HH HH#HH HH*HH HH*HH

opsz 14 @28pt (on 24 pt linespace

HHAHH HHBHH HHCHH HHDHH HHUHH HHVHH HHWHH HHXHH HHYHH HHZHH nnann nnbnn nncnn nndnn nnenn nnfnn nngnn nnhnn nninn nnjnn nnknn nnlnn nnmnn nnnnn nnonn nnpnn nnqnn nnrnn nnsnn nntnn nnunn nnvnn nnwnn nnxnn nnynn nnznn 00000 00100 00200 00300 00400 00500 00600 HH~HH HH`HH HH*HH HH^HH HH'HH HH:HH HH;HH HH.HH HH,HH

GLYPHS IN PROTOTYPE

The contours are native drawn quadratic beziers.

The figures are Tabular and the width of the default figures is 1/2 em.

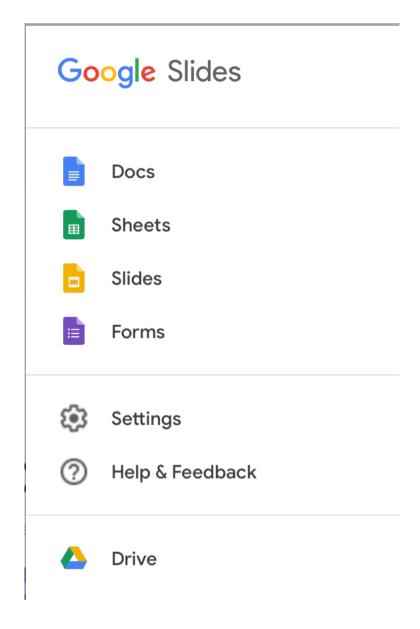
The Regular style is a nearly identical match whne swapped with the existing Roboto.

opsz 14 @14pt

ABCDEFGHIJKLMNOPQRSTUV WXYZ&abcdefghijklmnopqrst uvwxyz0123456789.,:;!?()[] {}/|\#\$%@'"*~^_`=+<>-

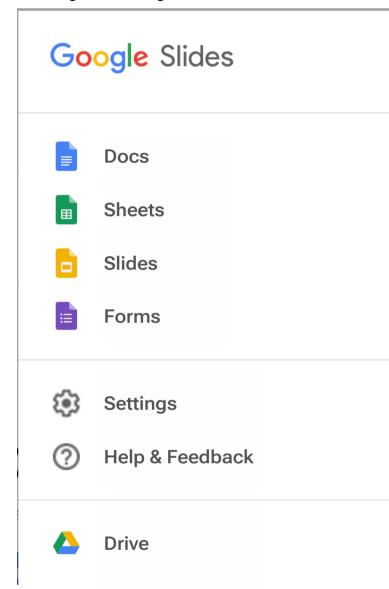
0123456789 1234567890 2345678901 3456789012 4567890123 **PROTOTYPE In UI**

Deployed



Extremo

Matching size and weight



14 pt opsz14 wght550 wdth115

AXES IN ALPHA VF opsz

The specification began with envisioning and designing a range of size masters upon which to base the weight and width axes, so as to provide more weight change at larger sizes, where it's possible to use very bold and very light instances, and less range as the optical size of use gets smaller.

opsz 72 @24pt

ABCDEFGHIJKLMNOPQ RSTUVWXYZ&abcdefg hijklmnopqrstuvwxyz0 123456789.,:;!?()[] {}/\#\$%@'"*~^_`= +<>-

psz 14 @24pt

ABCDEFGHIJKLM NOPQRSTUVWXY Z&abcdefghijklm nopqrstuvwxyz0 123456789.,:;!? ()[]{}/|\#\$%@'"* ~^`=+<>-

opsz 8 @24pt

ABCDEFGHIJKL MNOPQRSTUVW XYZ&abcdefghij klmnopqrstuvwx yz012345678 9.,:;!?()[]{}/|\#\$ %@'"*~^_`=+<>

opsz 72 @72pt

ABCDEFGHIJKLMNOPQRST WXYZ&abcdefghijklmnopqr

opsz 14 @14pt

ABCDEFGHIJKLMNOPQRSTUVWXYZ& abcdefghijklmnopqrstuvwxyz 0123456789.;;!?() [] {} / |\ #\$%@'''*~^_`=+<>-

opsz 8 @8pt

ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz
0123456789.,;;!?() [] {}/|\
#\$%@""*~^_`=+<>-

AXES IN ALPHA VF: MASTERS Default wght & wdth

The maximim and minimum weights and widths for 14 point were then drawn and tested at actual size.

opsz 14, wght and wdth masters @14pt

MEMORABLE Planning sessions

MEMORABLE Planning sessions

MEMORABLE Planning sessions

MEMORABLE Planning sessions

MEMORABLE Planning sessions

opsz 14 wdth 50 @24pt

ABCDEFGHIJKLMN OPQRSTUVWXYZ&a bcdefghijklmnopq rstuvwxyz0123456 789.,:;!?()[]{}/|\ #\$%@'"*~^_`=+< >- psz 14 wght 900 @24pt

ABCDEFGHIJKL
MNOPQRSTUVW
XYZ&abcdefghij
klmnopqrstuvw
xyz012345678
9.,:;!?()[]{}/\#\$
%@'"*~^_=+<>-

opsz 14 @24pt

ABCDEFGHIJKLM NOPQRSTUVWXY Z&abcdefghijklm nopqrstuvwxyz0 123456789.,:;!? ()[]{}/|\#\$%@'"* ~^ =+<>-

opsz 14 wght 100 @24pt

ABCDEFGHIJKLMN OPQRSTUVWXYZ& abcdefghijklmnop qrstuvwxyz01234 56789.,:;!?()[]{}/| \#\$%@'"*~^_`=+ <>- opsz 14 wdth 125 @24pt

ABCDEFGHIJKL MNOPQRSTUVW XYZ&abcdefghi jkImnopqrstuv wxyz012345678 9.,:;!?0□{}/\#\$ %@'"*~^_`=+<>-

AXES IN ALPHA VF: MASTERS Paramteric Axes

Parametric axes, i.e. variations to the underlying single parameters that combine to make the changes from one stye to another, and from one size master to another, were drawn. These include the six axes shown here. XTRA modifies the counter width of glyphs. YTUC cjhanges uppercase height. YTLC changes lowercase height. XOPQ changes stem weight. YTAS changeslowercase ascender height and YOPQ changes hairline weight.

opsz 14 XTRA minimum

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z & a b c d e f g h i j k l m n o p q r s t u

psz 14 X I KA maximum

ABCDEFGHIJKL MNOPQRSTUV WXYZ&abcdef

opsz 14 YOPQ minimum

ABCDEFGHIJKLM NOPQRSTUVWXY Z&abcdefghijklm

A B C D E F G H I J K L M

NOPQRSTUVWXY Z&abcdefghijklm opsz 14 YTUC minimum

ABCDEFGHIJKLM NOPQRSTUVWXY z&abcdefghijklm

opsz 14 YTUC maximum

ABCDEFGHIJKLM NOPQRSTUVWXY Z&abcdefghijklm

opsz 14 @24pt

ABCDEFGHIJKLM NOPQRSTUVWXY Z&abcdefghijklm nopqrstuvwxyz0 123456789.,:;!? ()[]{}/|\#\$%@'"* ~^ =+<>-

opsz 14 YTAS minimum

ABCDEFGHIJKLM NOPQRSTUVWXY Z&abcdefghijklm

opsz 14 YTAS maximum

ABCDEFGHIJKLM NOPQRSTUVWXY Z&abcdefghijklm opsz 14 YTLC minimum

ABCDEFGHIJKLM NOPQRSTUVWXY Z&abcdefghijklm

opsz 14 YTLC maximum

ABCDEFGHIJKLM NOPQRSTUVWXY Z&abcdefghijklm

psz 14 XOPQ minimum

ABCDEFGHIJKLMN OPQRSTUVWXYZ&a bcdefghijklmnopqrs

opsz 14 XOPQ maximum

ABCDEFGHIJK LMNOPQRSTUV WXYZ&abcdefg Together with the wght and wdth masters, (grey), and the default in the middle, the combination of five masters define their combinations, (black). The parametric axes were used to make minor adjustments to for the completed style sof the 14 point master.

opsz 14 wght 900 wdth 50 @24pt

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
&abcdefghijklmn
opqrstuvwxyz012
3456789.,:;!?()[]
{}/\#\$%@'"*~^-

opsz 14 wdth 50 @24pt

ABCDEFGHIJKLMN OPQRSTUVWXYZ&a bcdefghijklmnopq rstuvwxyz0123456 789.,:;!?()[]{}/|\ #\$%@'"*~^_`=+< >-

opsz 14 wght 100 wdth 50 @24pt

ABCDEFGHIJKLMNO
PQRSTUVWXYZ&abc
defghijklmnopqrstu
vwxyz012345678
9.,:;!?()[]{}/[\#\$%
@'"*~^_`=+<>-

opsz 14 wght 900 @24pt

ABCDEFGHIJKL
MNOPQRSTUVW
XYZ&abcdefghi
klmnopqrstuvw
xyz012345678
9.,:;!?()[]{}/|\#\$
%@'"*~^_=+<>-

opsz 14 @24pt

ABCDEFGHIJKLM NOPQRSTUVWXY Z&abcdefghijklm nopqrstuvwxyz0 123456789.,:;!? ()[]{}/|\#\$%@'"* ~^ =+<>-

opsz 14 wght 100 @24pt

ABCDEFGHIJKLMN OPQRSTUVWXYZ& abcdefghijklmnop qrstuvwxyz01234 56789.,:;!?()[]{}/| \#\$%@'"*~^_`=+

opsz 14 wght 900 wdth 125 @24pt

ABCDEFGHIJK
LMNOPQRSTUV
WXYZ&abcdef
ghijklmnopqr
stuvwxyz0123
456789.,:;!?()[]
{\|\#\$%@\"*~^

opsz 14 wdth 125 @24pt

ABCDEFGHIJKL
MNOPQRSTUVW
XYZ&abcdefghi
jklmnopqrstuv
wxyz012345678
9.,:;!?0[{}/\/#\$
%@'"*~^_`=+<>-

opsz 14 wght 100 wdth 125 @24pt

ABCDEFGHIJKLM NOPQRSTUVWXY Z&abcdefghijkIm nopqrstuvwxyz0 123456789.,:;!? ()[]{}/|\#\$%@'"* ~^`=+<>-

AXES IN ALPHA VF

The specification began with envisioning and designing a range of size masters upon which to base the weight and width axes, so as to provide more weight change at larger sizes, where it's possible to use very bold and very light instances, and less range as the optical size of use gets smaller.

opsz 14, wght and wdth masters @24pt

opsz 72 wght 100 wdth 125, 100 & 25 @72pt

MEMORABLE Planning sessions
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MEMORABLE Planning sessions
MEMORABLE Planning sessions

opsz 14, wght and wdth masters @14pt

MEMORABLE Planning sessions
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MEMORABLE Planning sessions

MEMORABLE Planning sessions MEMORABLE Planning sessions MEMORABLE Planning sessions

ABCDEFGHIJKLMNOPQFTUVVXYZ&
ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz



The specification began with envisioning and designing a range of size masters upon which to base the weight and width axes, so as to provide more weight change at larger sizes, where it's possible to use very bold and very light instances, and less range as the optical size of use gets smaller.

opsz 144 @24pt

ABCDEFGHIJKLMNOPQ RSTUVWXYZ&abcdefg hijklmnopqrstuvwxyz0 123456789.,:;!?()[] {}/|\#\$%@'"*~^_`= +<>-

opsz 14 @24pt

ABCDEFGHIJKLM
NOPQRSTUVWXY
Z&abcdefghijklm
nopqrstuvwxyz0
123456789.,:;!?
()[]{}/|\#\$%@'"*
~^`=+<>-

opsz 8 @24pt

ABCDEFGHIJKL
MNOPQRSTUVW
XYZ&abcdefghij
klmnopqrstuvwx
yz012345678
9.,:;!?()[]{}/|\#\$
%@'"*~^_`=+<>

ABCDEFGHIJF MNOPQRSTU WXYZ&abcde

opsz 144 wght 100 wdth 125, 100 & 25 @144pt

AXES IN Beta VF

The specification began with envisioning and designing a range of size masters upon which to base the weight and width axes, so as to provide more weight change at larger sizes, where it's possible to use very bold and very light instances, and less range as the optical size of use gets smaller.

TRANS Alpine meadows in sprintime blossem in rare shades of blue, purple and delicate yelllow

- TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate yellow
- TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate vellow
- TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate vellow
- TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate yellow
- TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate yellow
- TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate yellow
- TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate vellow
- TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate

ABCDEFGHIJKLMNOPQ RSTUVWXYZ&abcdefg hijklmnopqrstuvwxyz0

ABCDEFGHIJKLM NOPQRSTUVWXY Z&abcdefghijklm nopqrstuvwxyz0

TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate yellow

TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate yellow

TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate yellow

TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate yellow

TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate

TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate yellow

ABCDEFGHIJKL MNOPQRSTUVW XYZ&abcdefghij klmnopqrstuvwx yz012345678 9.,:;!?()[]{}/|\#\$

TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and delicate yellow

shades of blue, purple and

TRANS Alpine meadows in sprintime blossem in rare shades of blue, purple and delicate velllow

TRANS Alpine meadows in TRANS Alpine meadows in

TRANS Alpine meadows in sprintime blossem in rare shades of blue, purple and delicate yelllow

TRANS Alpine meadows in sprintime blossem in rare shades of blue, purple and delicate yelllow

AXES IN Beta VF

The specification began with envisioning and designing a range of size masters upon which to base the weight and width axes, so as to provide more weight change at larger sizes, where it's possible to use very bold and very light instances, and less range as the optical size of use gets smaller.

- TRANS Alpine meadows in sprintime blossem in rare shades of blue, purple and delicate yellbow
- sprintime blossom in rare

ABCDEEGHIJKLMNORQ RSTUVWXYZ&abcdefg klmnopgrstuvwxyz0

ABCDEFGHIJKLM NOPQRSTUVWXY Z&abcdefghijklm nopqrstuvwxyz0

TRANS Alpine meadows in sprintime blossom in rare shades of blue, purple and TRANS Alpine meadows in TRANS Alpine meadows sprintime blossom in rare in sprintime blossom in shades of blue, purple and rare shades of blue, delicate yellow

purple and delicate

sprintime blossem in rare

TRANS Alpine meadows rare shades of blue, purple and delicate

ABCDEFGHIJKL XYZ&abcdefghij mnopgrstuvwx

shades of blue, purple and

TRANS Alpine meadows in TRANS Alpine meadows in sprintime blossem in rare sprintime blossem in rare shades of blue, purple and shades of blue, purple and

sprintime blossem in rare | sprintime blossem in rare shades of blue, purple and shades of blue, purple and

TRANS Alpine meadows in

TRANS Alpine meadows in