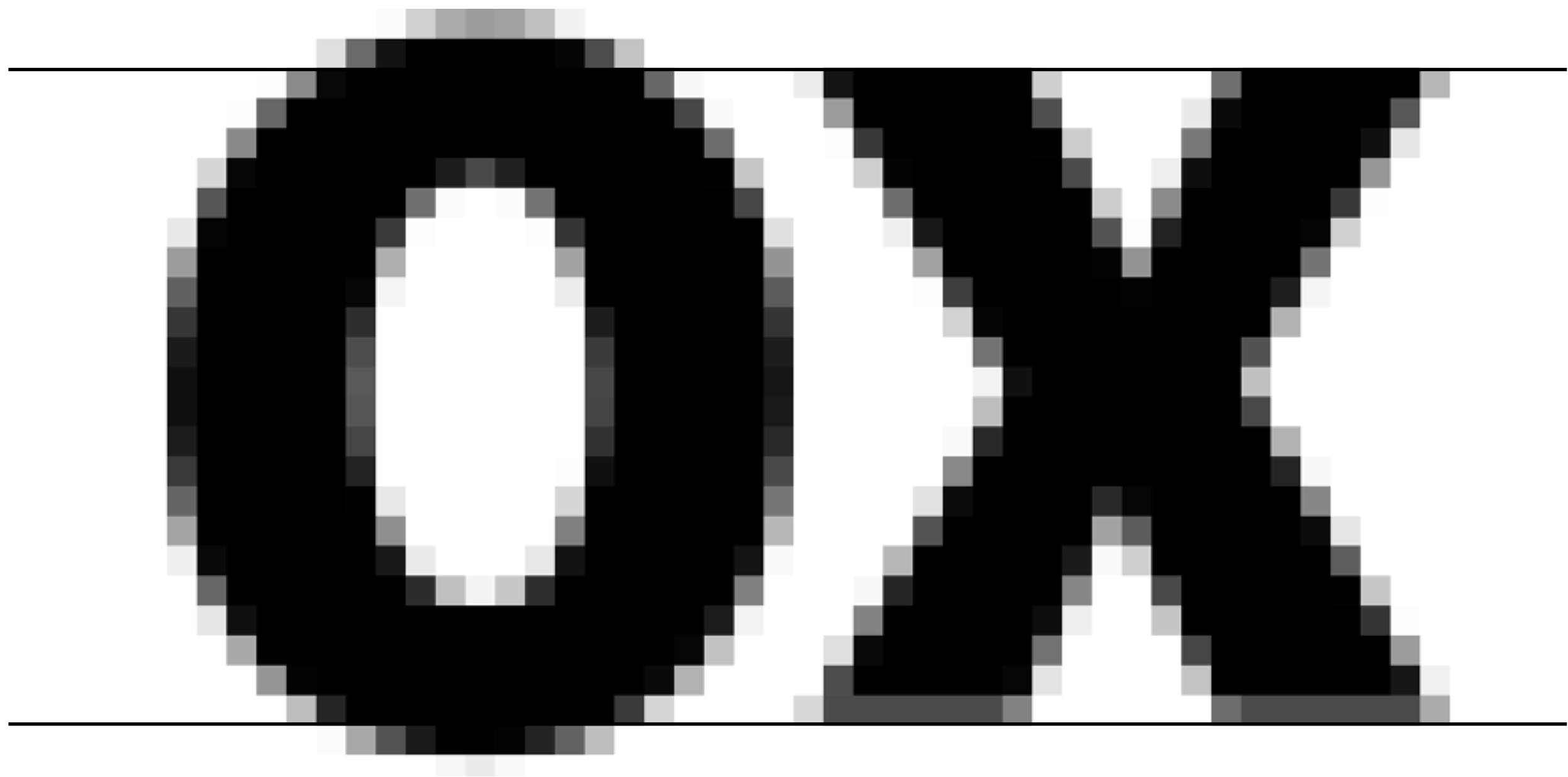


# PostScript Hints

Miguel Sousa

**OX**

OX



**OX**

о х о н ъ в

BlueValues

oxOHISb

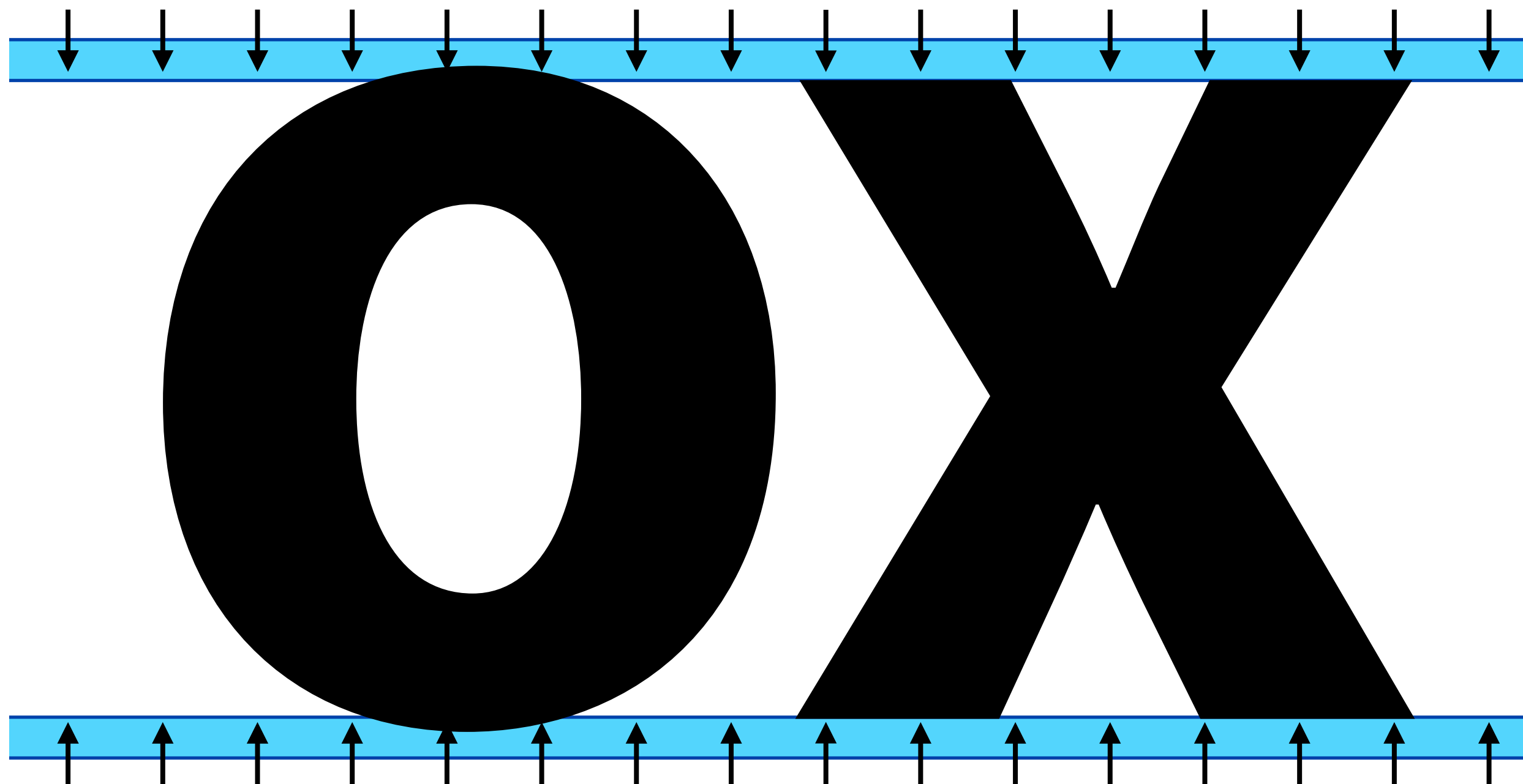
gp 23 कल



gp 23 क

OtherBlues

OXOH



# BlueValues

*Top alignment zones (+ baseline zone)*

# OtherBlues

*Bottom alignment zones*



## *Alignment zone rules*

- Zones cannot overlap
- Minimum distance between zones is 1 unit
- Up to 6 top zones (+ baseline zone)
- Up to 5 bottom zones

og

og

FamilyBlues

The diagram illustrates the difference in letter height between two font families. On the left, the letters 'o' and 'g' from 'FamilyBlues' are shown within a set of three blue horizontal guidelines. The 'o' is tall, reaching the top line, while the 'g' is shorter, reaching the middle line. On the right, the letters 'o' and 'g' from 'FamilyOtherBlues' are shown within a similar set of blue guidelines. The 'o' is significantly shorter than the one on the left, reaching only the middle line. The 'g' is also shorter, reaching the bottom line. Three curved arrows point from the top of the 'o' in 'FamilyBlues' to the top of the 'o' in 'FamilyOtherBlues', indicating the reduction in height. Additionally, a thin grey line is visible above the top blue line on the right side, representing the x-height of the 'FamilyOtherBlues' font.

o g o g

FamilyOtherBlues

If the difference between a font's zones and its family's zones is less than 1 pixel, then the family alignments will be used instead of the font's own alignments.

*Adobe Type 1 Font Format, page 38*



BlueValues

*Top alignment zones*

OtherBlues

*Bottom alignment zones*

FamilyBlues

*Top alignment family zones*

FamilyOtherBlues

*Bottom alignment family zones*

BlueFuzz

BlueScale

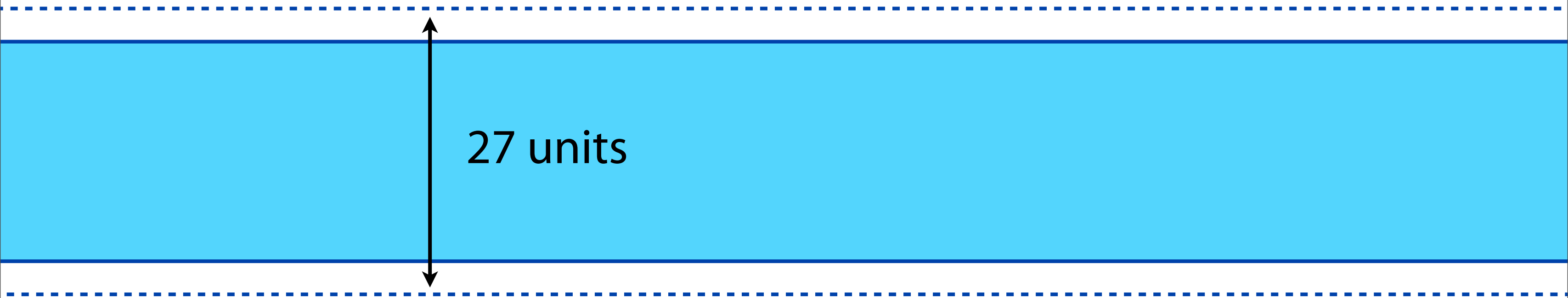
BlueShift

# BlueFuzz



25 units

BlueFuzz = 1



# BlueFuzz

*Recommended value: **zero***

# BlueScale



25 units

# BlueScale



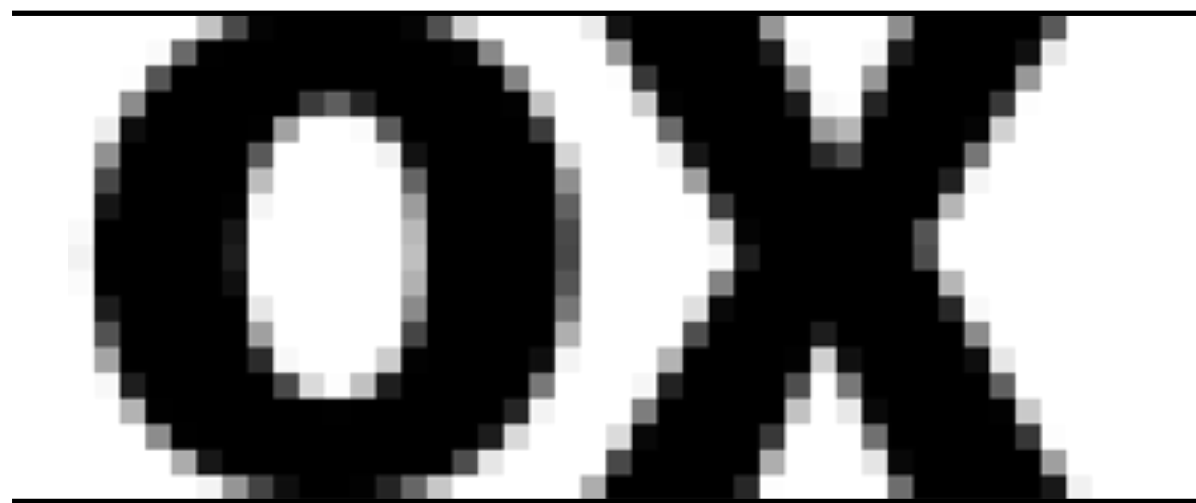
25 units ► 1 pixel @ 40pt

*1000 UPM & 72 ppi*

# BlueScale

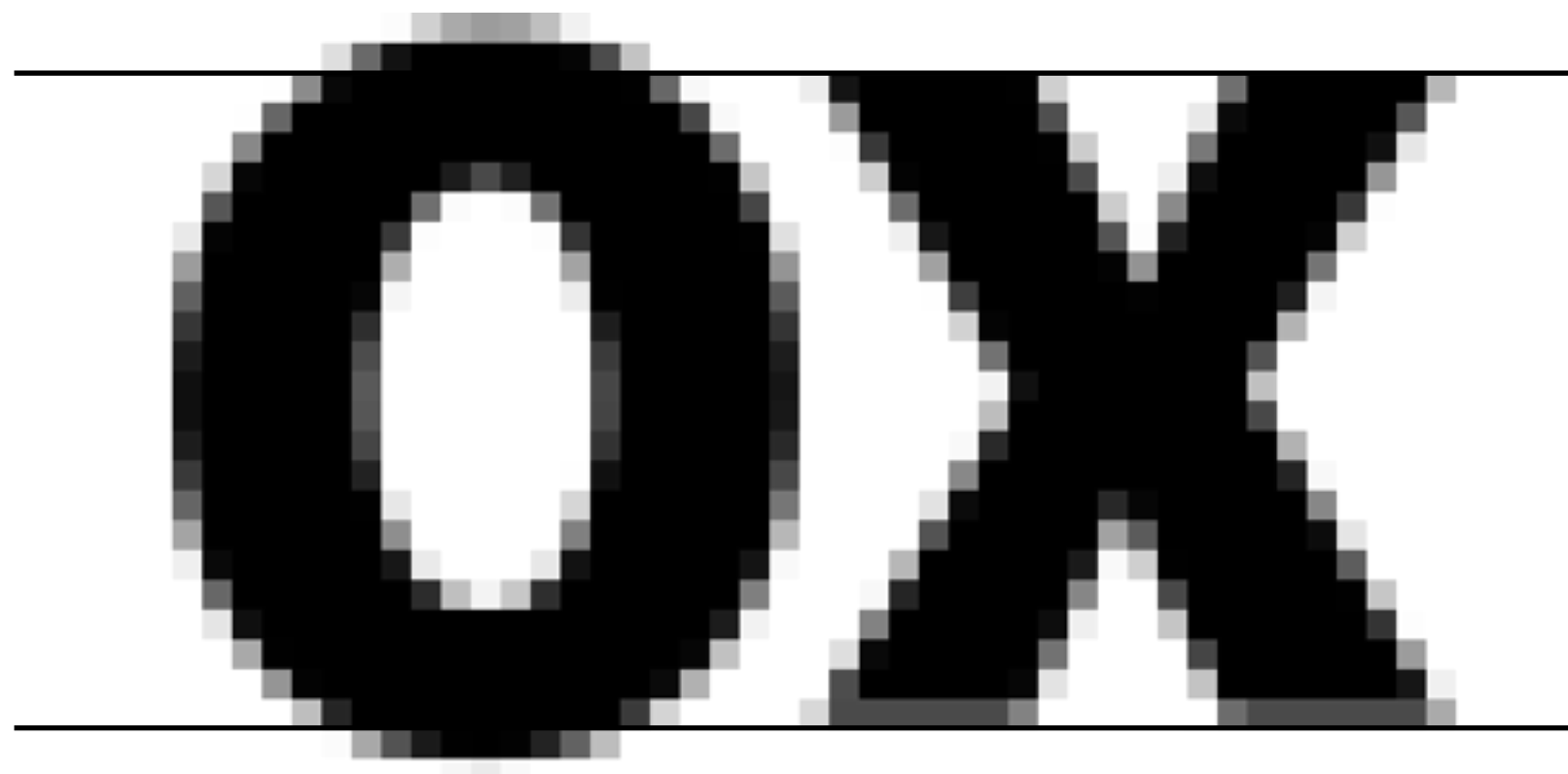
20 pt

25 units ▶ ½ pixel



40 pt

25 units ▶ 1 pixel



*1000 UPM & 72 ppi*



Q: What happens to the overshoot  
for the sizes between 20 and 40pt?

A: It will be displayed, or not, depending  
on the **BlueScale** value.

$$\frac{1}{2 \times \text{MaxZoneSize}} \leq \text{BlueScale} < \frac{1}{\text{MaxZoneSize}}$$

*½ pixel* *1 pixel*

$$\text{MidBlueScale} = \frac{3}{4 \times \text{MaxZoneSize}}$$

$$\text{OvershootPointSize} = \frac{\text{BlueScale} \times 72 \times \text{UPM}}{\text{ppi}}$$

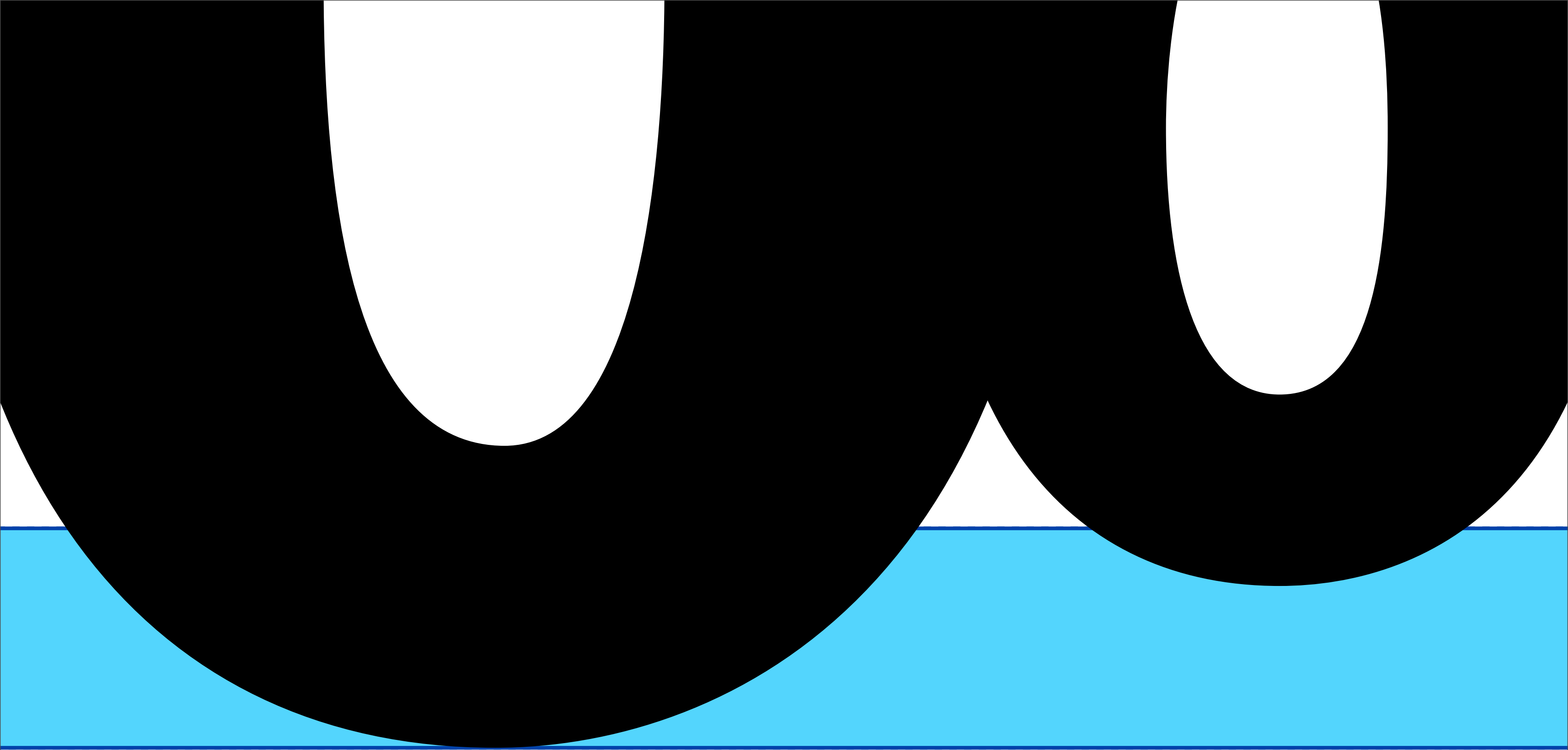
# BlueScale

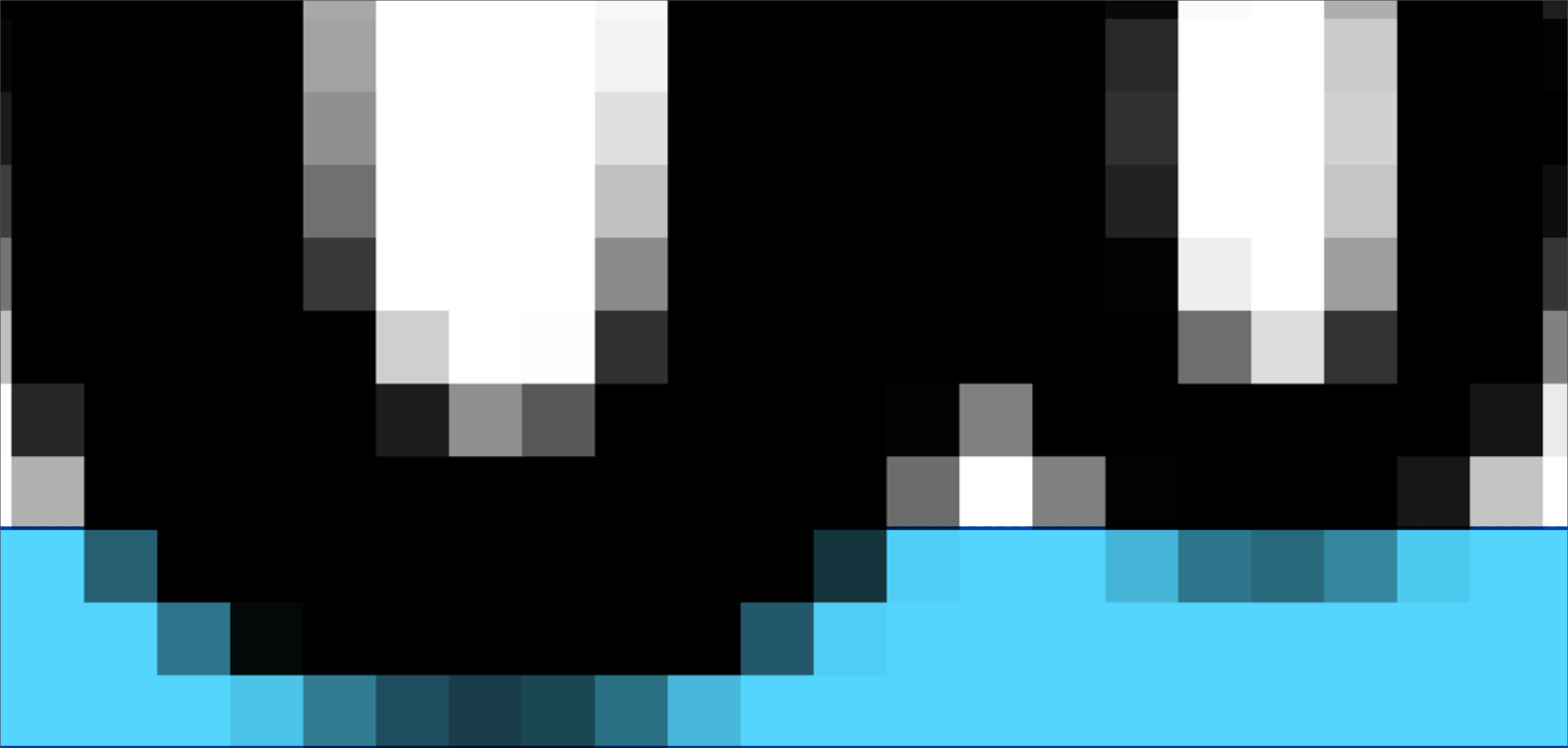
*Determines when the overshoot  
becomes visible*

# BlueShift

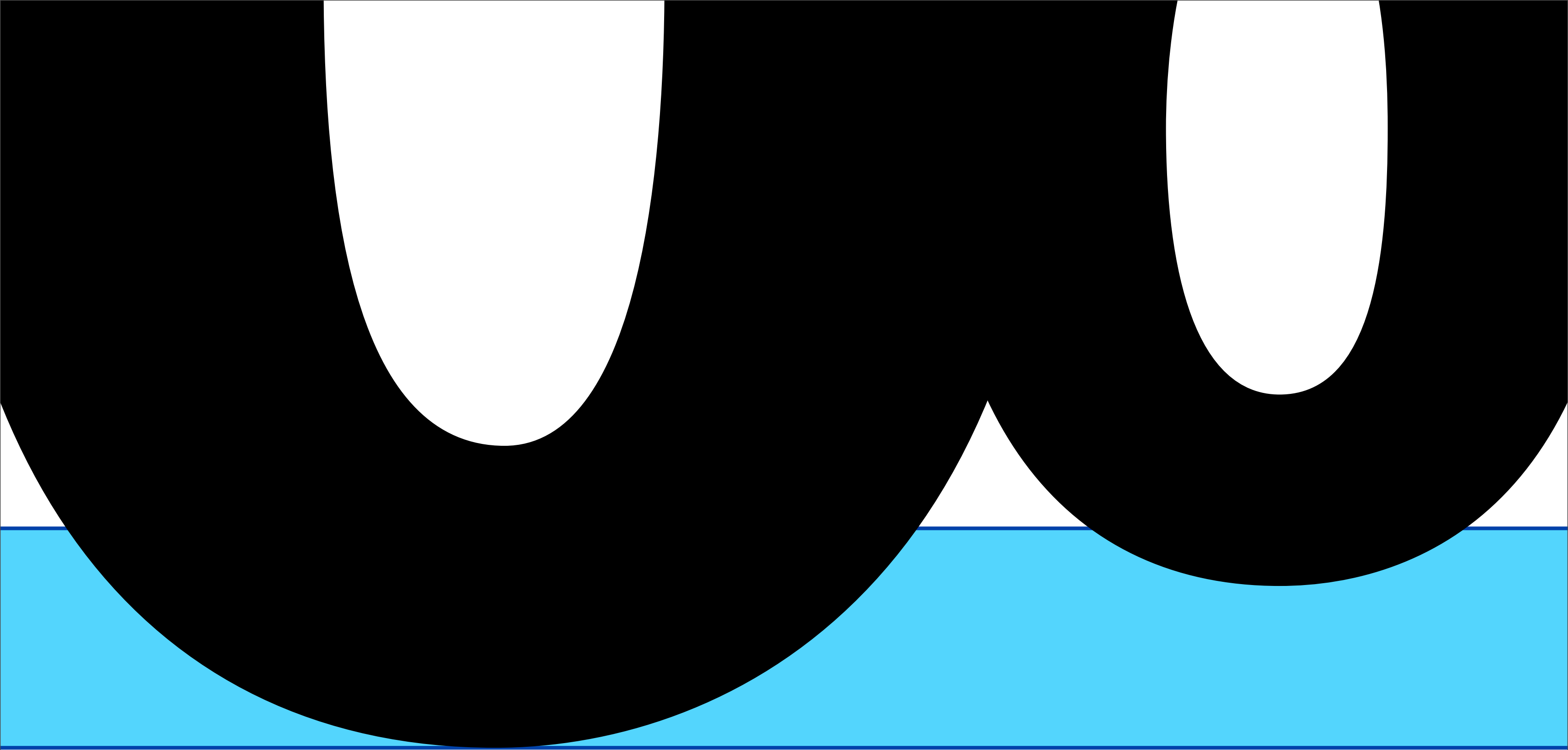


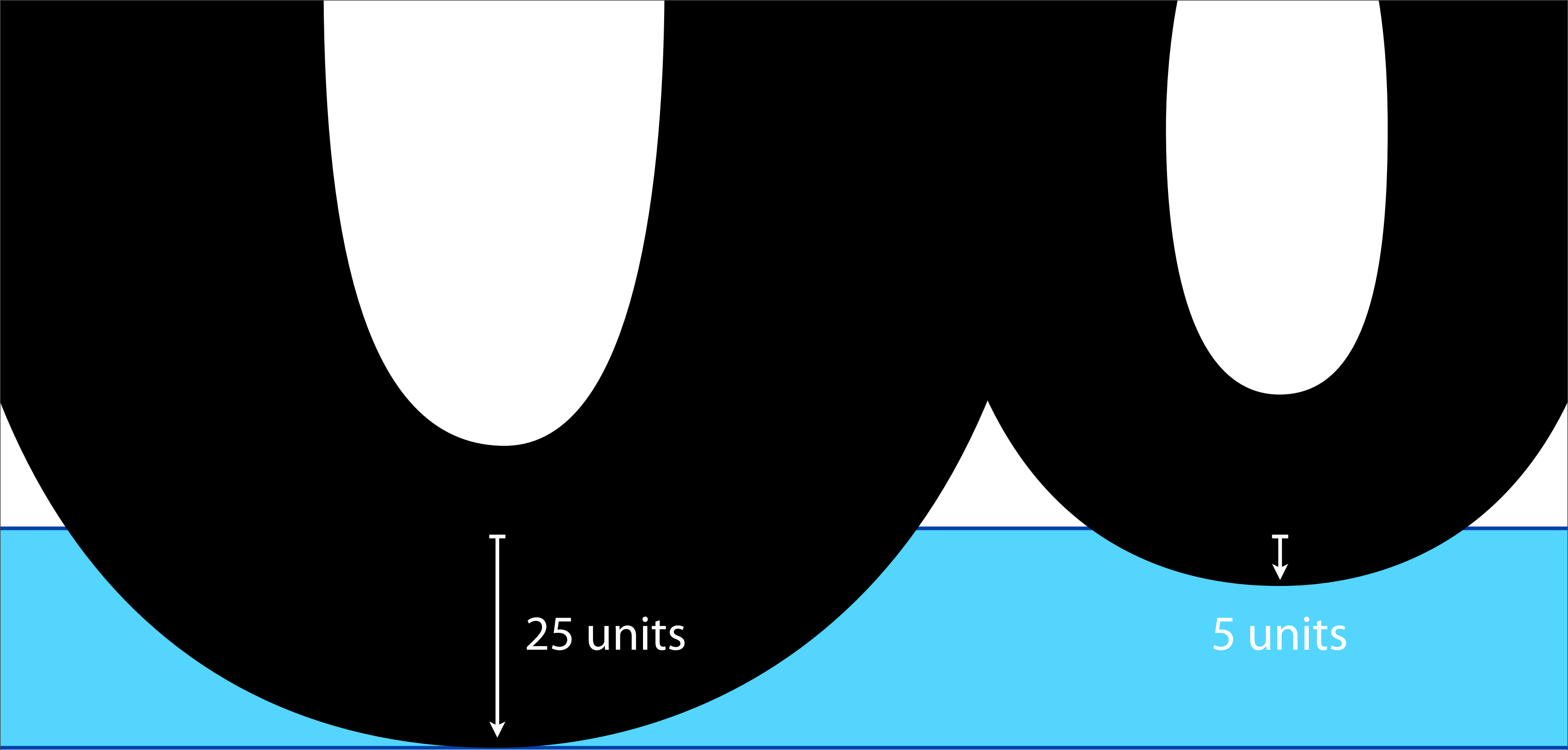
25 units

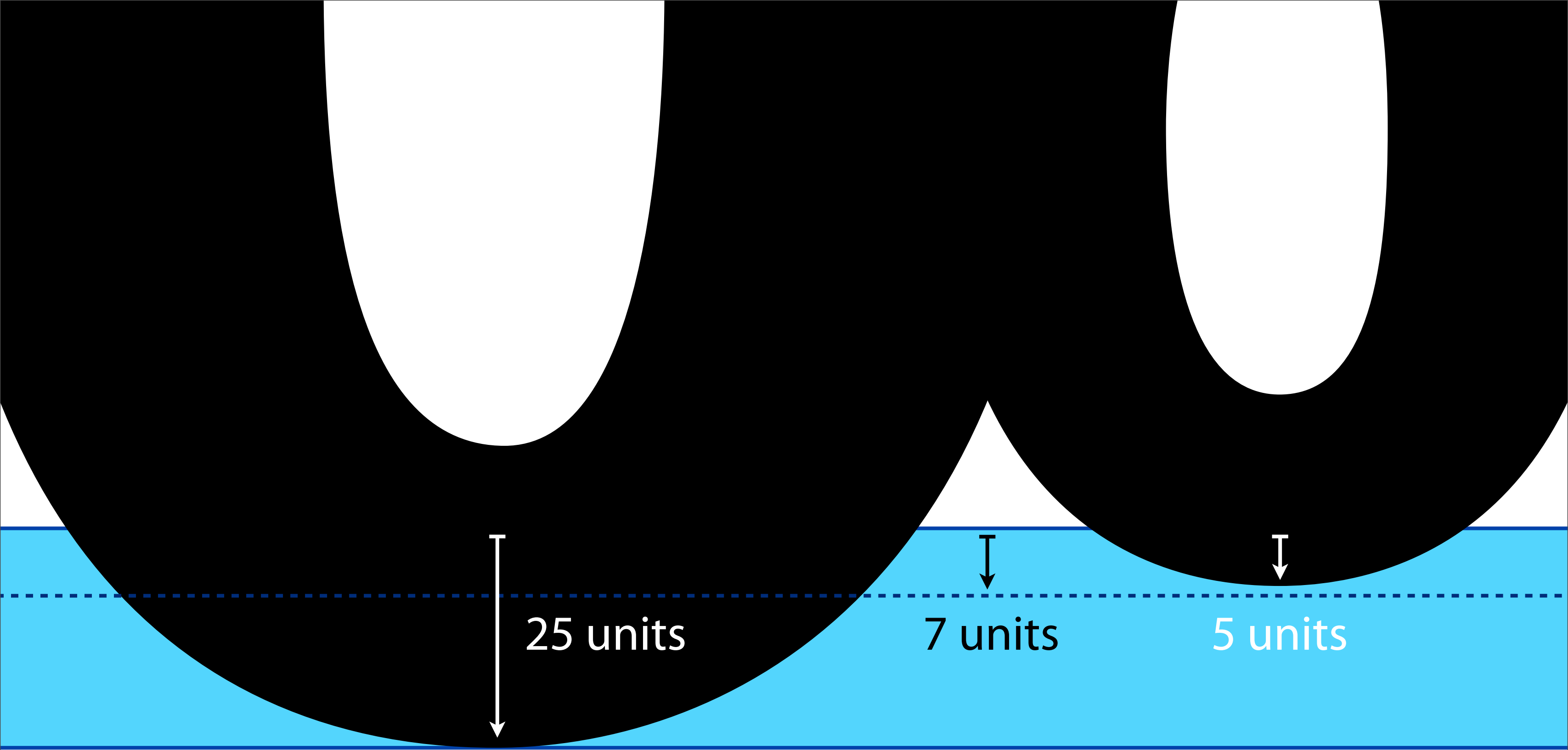




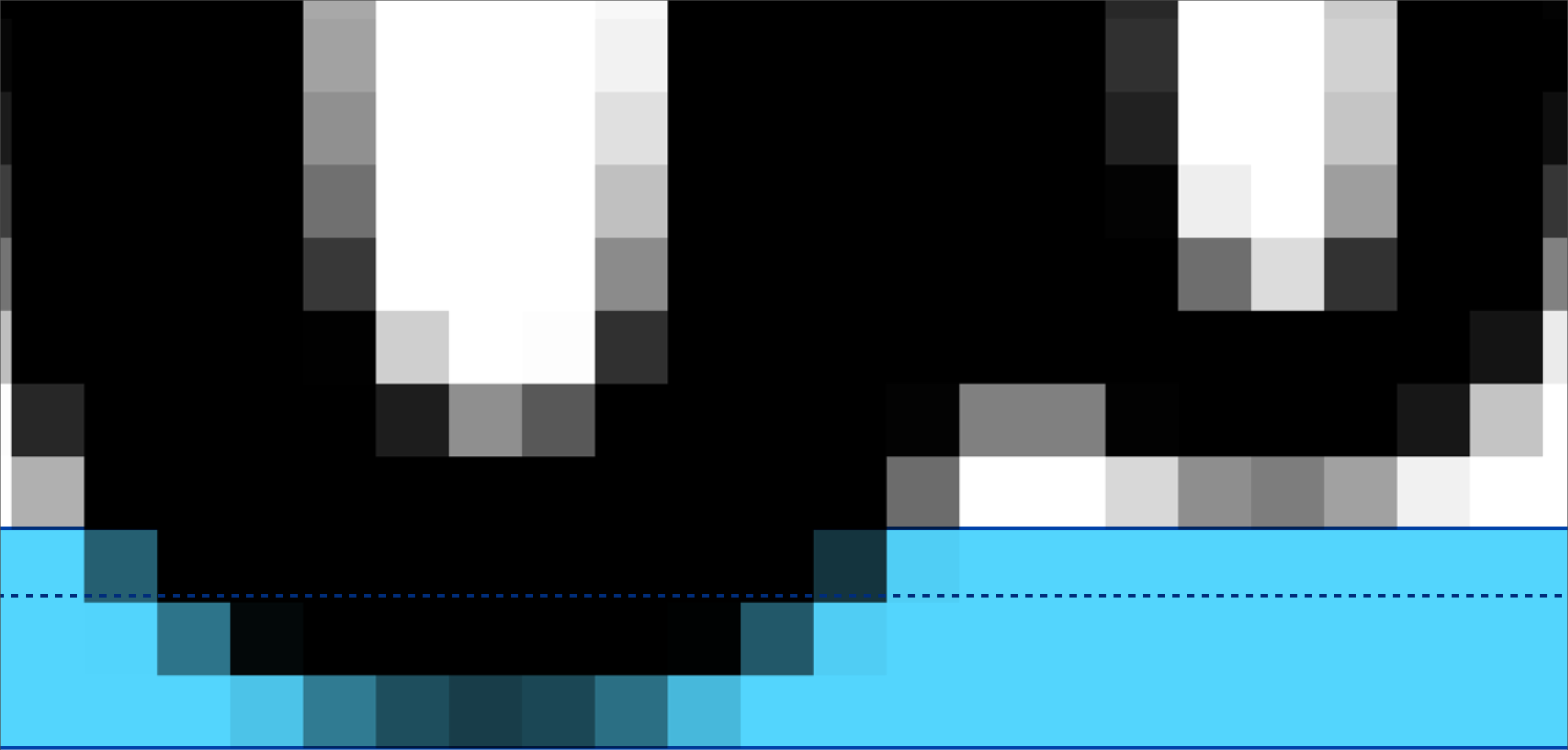








BlueShift = 7



BlueShift = 7

# BlueShift

*Default value: **7** font units  
(1000 UPM font)*

# BlueFuzz

*Expands the zones*

# BlueScale

*Determines when the overshoot  
becomes visible*

# BlueShift

*Defines the minimum overshoot distance  
that can become visible*

# Standard Stems

**HE**

# Standard Stems

**H**

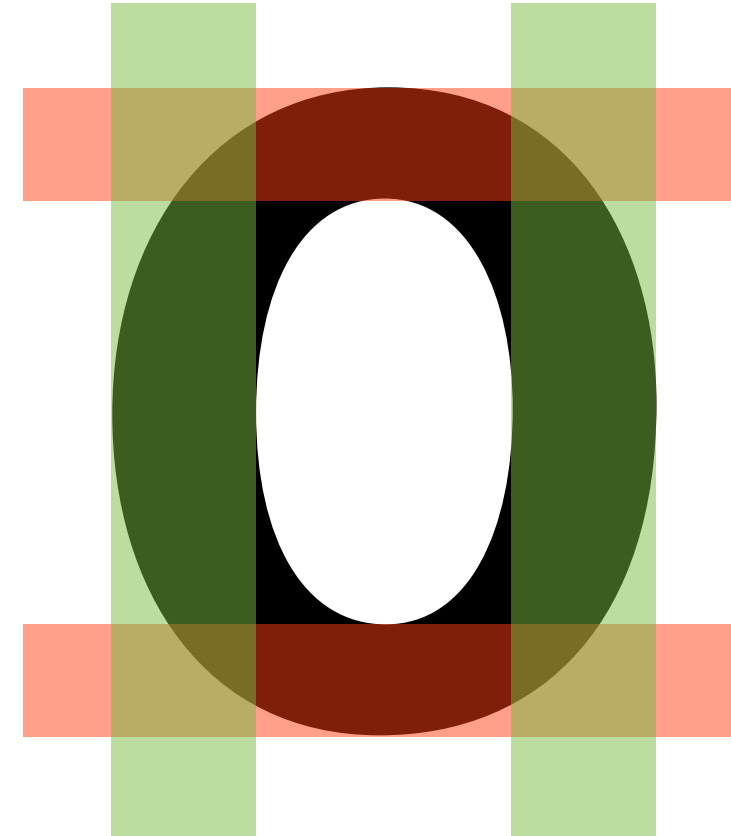
**E**

**O**



# Standard Stems

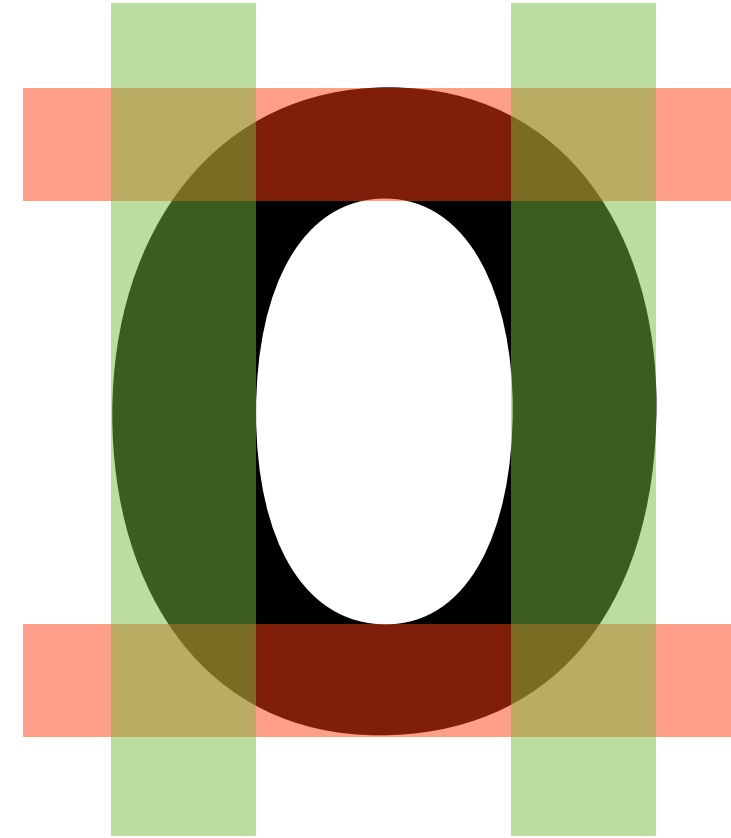
**H E**



# Standard Stems

H

E



a

n

s

# Standard Stems

H

E

O

d

n

s

# Standard Stems

*Vertical*

*Horizontal*

Q: Why are Standard Stems important?

A: Because they tell the rasterizer how heavy the font is.

Q: But why does it need to know that?

A: Because at small sizes the rasterizer makes the stems darker.

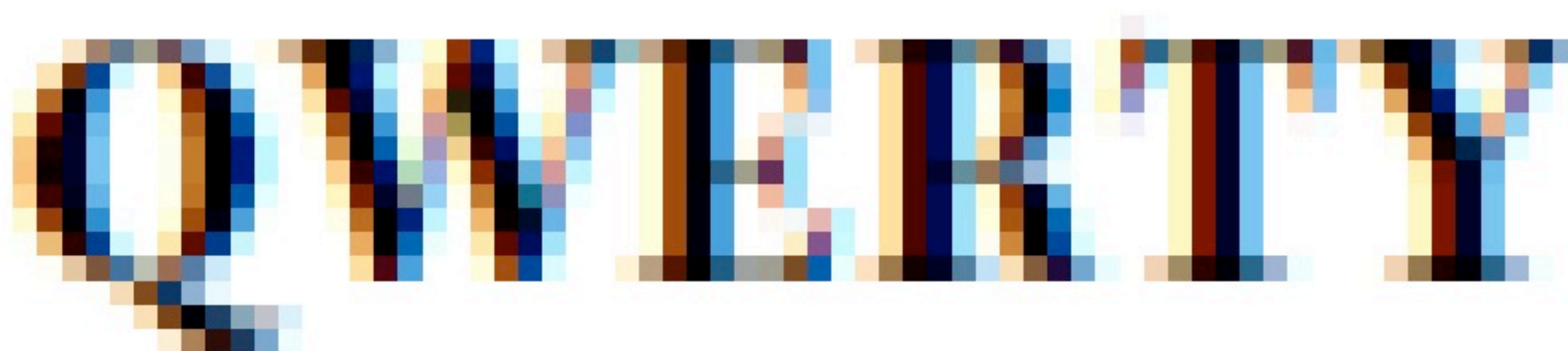
IR

IR

IR



IR



QWERTY



QWERTY

And that's all

**Thanks!**