

# **The Making of Roboto Delta**

**Fully Parametric AVAR2, with blended axes  
Weight, Width, Optical Size, Grade,  
Thick Stroke (XOPQ), Thin Stroke (YOPQ),  
Counter Width (XTRA), and their sub-axes.  
Spacing (SPAC) and other typographic  
special treatments.**

# Default's character Set

Latin, Cyrillic, Greek,  
with combination  
marks, and many  
parts.

**27 Blended Locations, Registered Axes, Fully Parametric**

**100**  
Roboto Delta  
Roboto Delta  
Roboto Delta

**400**  
Roboto Delta  
Roboto Delta  
Roboto Delta

**1000**  
**Roboto Delta**  
**Roboto Delta**  
**Roboto Delta**

**14 pt**  
Roboto Delta  
Roboto Delta  
Roboto Delta

Roboto Delta  
**Roboto Delta**  
Roboto Delta

**Roboto Delta**  
**Roboto Delta**  
**Roboto Delta**

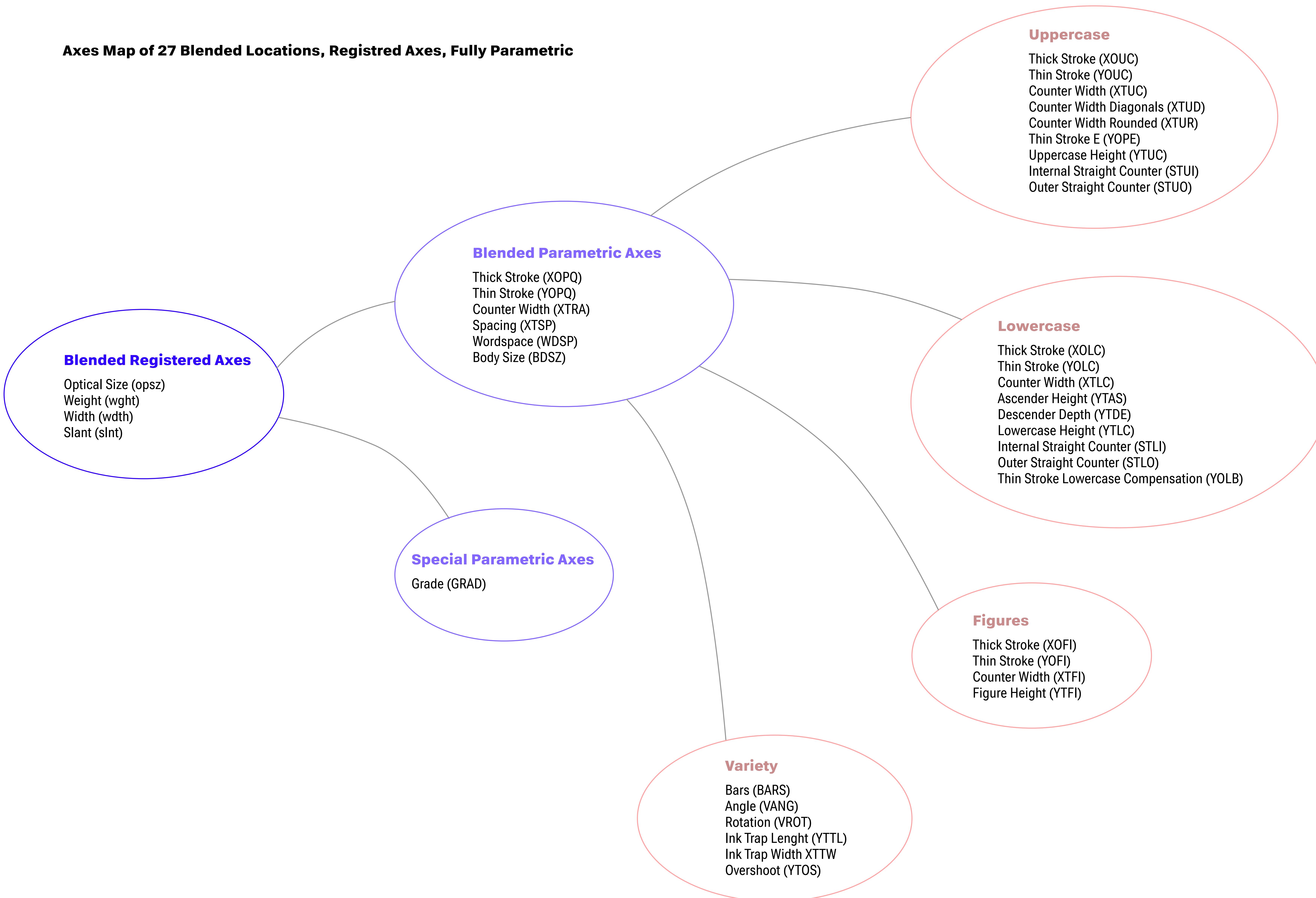
**144 pt**  
Roboto Delta  
Roboto Delta  
Roboto Delta

Roboto Delta  
Roboto Delta  
Roboto Delta

**Roboto Delta**  
**Roboto Delta**  
**Roboto Delta**

Full designspace,  
Optical Size 8–144  
Weight 100–1000  
Width 25–151

## Axes Map of 27 Blended Locations, Registered Axes, Fully Parametric



The main advantage of AVAR2 is the ability to blend axes, meaning you can make an axis as a combination of multiple ones.

In Roboto Delta, the user axes Optical Size, Weight, & Width are a blend of the parametric axes XOPQ, YOPQ, & XTRA, which are also a blend of sub-axes split into Uppercase, lowercase, & figures.

Additionally there are more axes which adds more typographic flexibility, like Spacing, Wordspace, Grade, Lowercase Height, Ascender Height, Descender Depth.

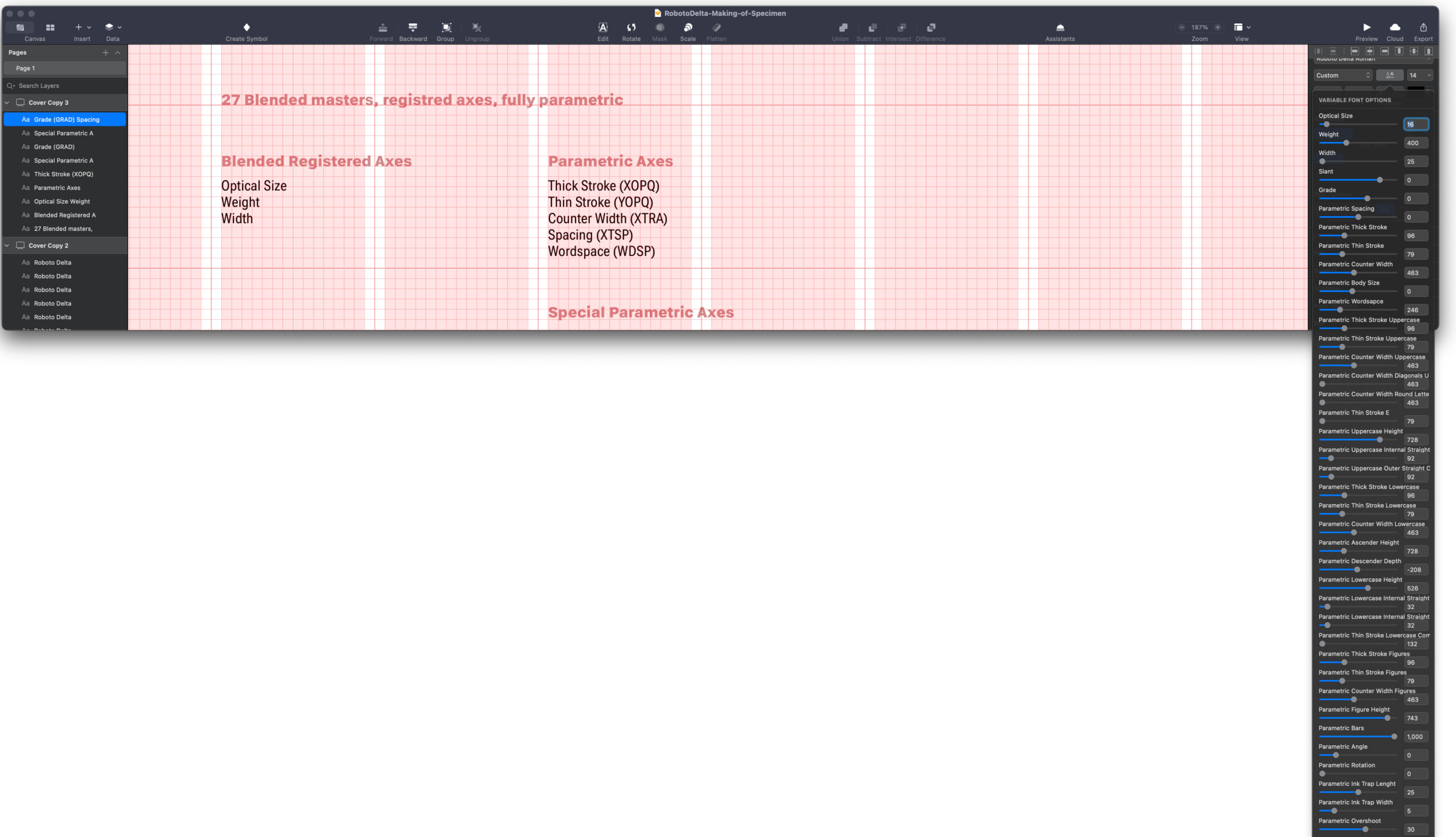
There are some axes that are enabled only to support extreme cases, like the Light Condensed Display (144 25 100), in this case STUI, STUO, STLI, & STLO helps to add the squareness needed at this location, on top of all the other parametric blends.

Also, in the Black Condensed Display, the diagonals need to be a little more open than the XTRA controls at that location, XTUD helps with it. At another location (144 151 400) XTUR helps with the rounded glyphs.

In the Black Display locations, YOLB helps adding more weight in the middle bars of a & e related glyphs.

Other variety of axes helps in micro typography details, like overshoots, ink traps, angle, open or close bars (\$).

**Axes have been renamed to match the public version of Roboto Flex, with some more additions.**



Currently, the only applications that supports AVAR2 due to their integration with the OS are these Apps & Webapps:

Affinity  
Sketch (Where this document was made)

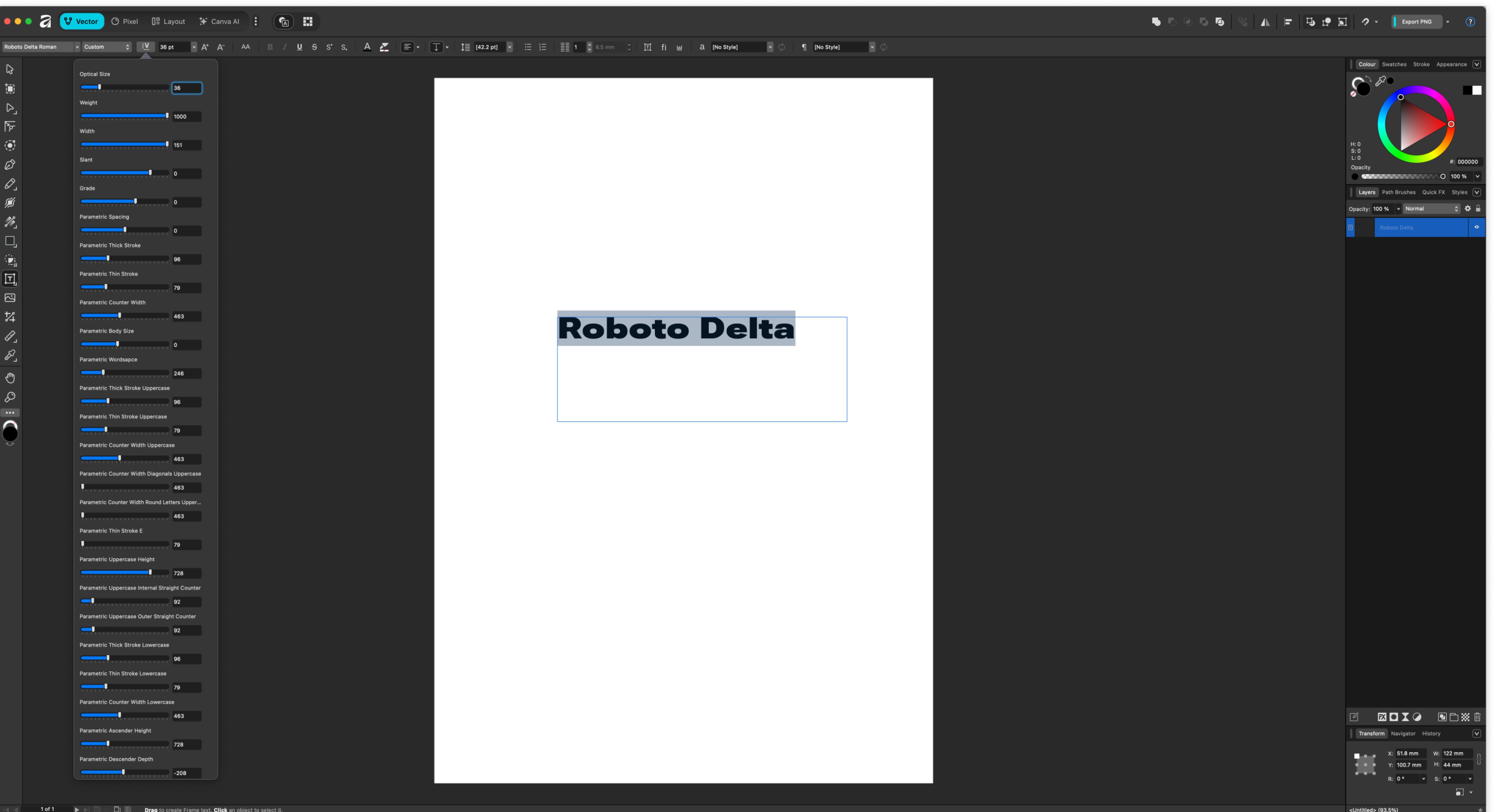
Fun Fact, Adobe InDesign crashes completely if there's an AVAR 2 font installed in the OS, it crashes and cannot be opened, and if you have it open, as soon as Roboto Delta is activated in FontBook, InDesign crashes immediately.

It can also be previewed in our web tools:

<https://fontbureau.github.io>TypeRoof/shell>  
<https://videoproof.appspot.com/>

And in Fontra.

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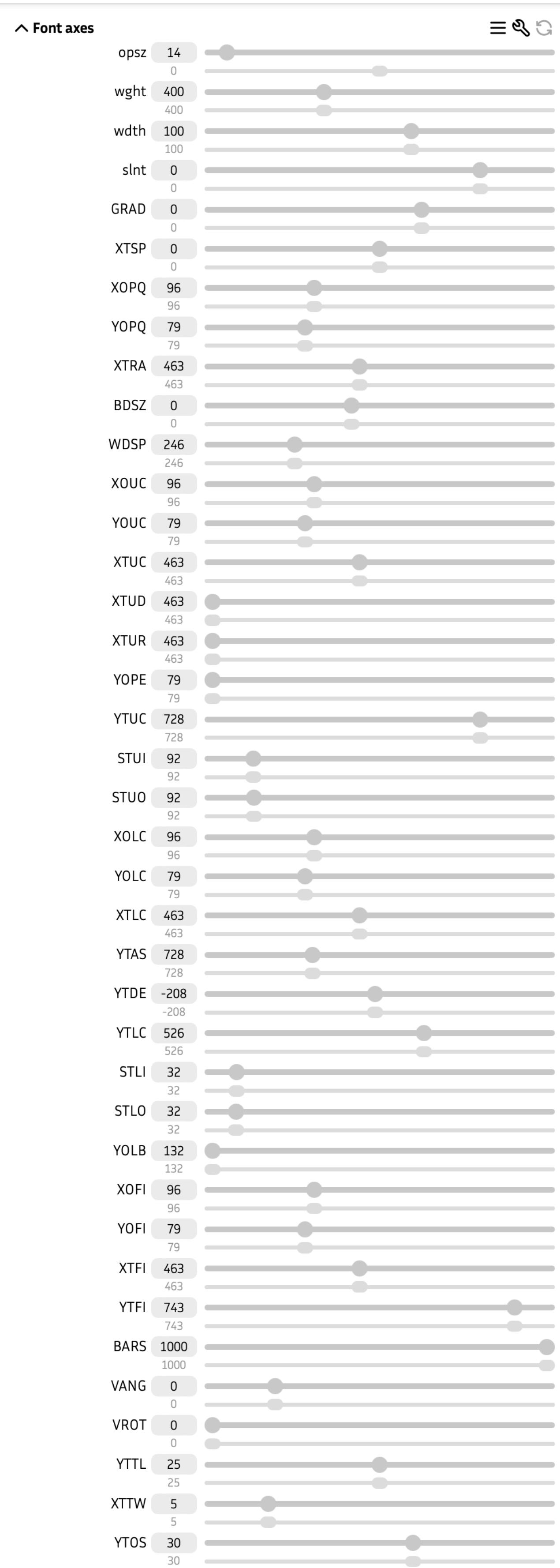
It can also be previewed in our web tools:

<https://fontbureau.github.io>TypeRoof/shell>  
<https://videoproof.appspot.com/>

And in Fontra.

### **Default Location, 14-100-400**

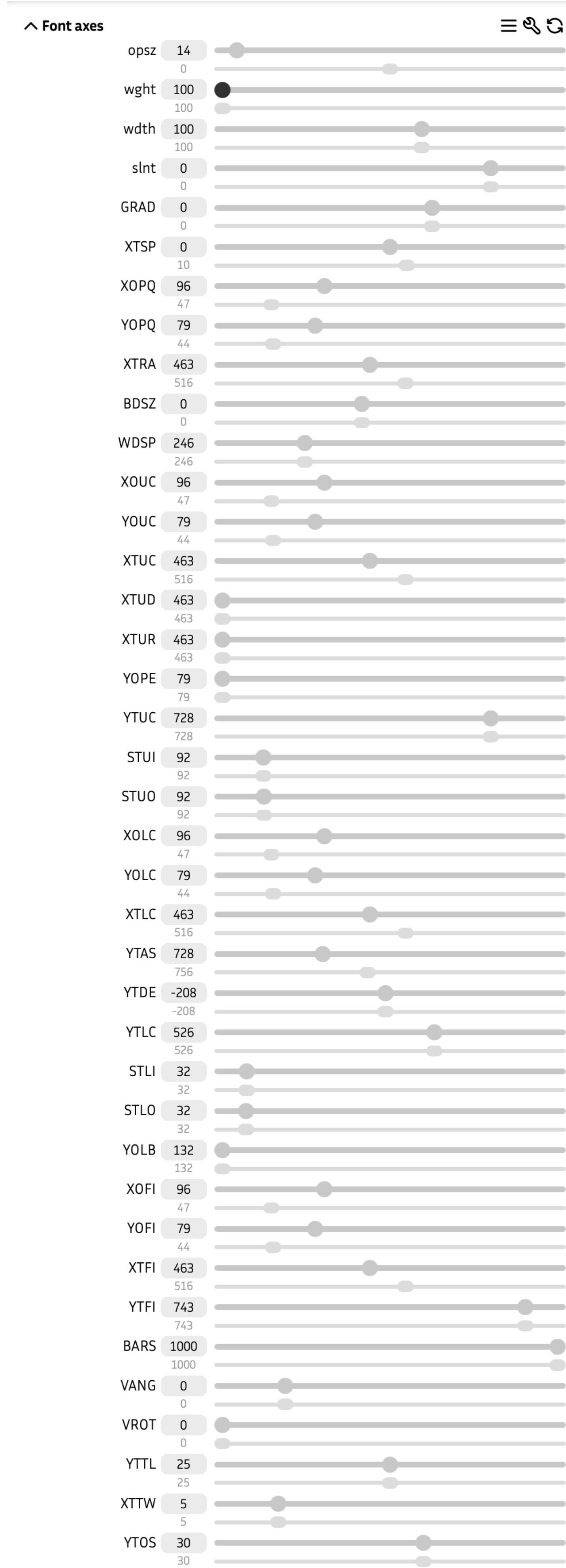
Our starting point is the Default Roboto Flex,  
Optical Size 14, Weight 400, Width 100.  
In Fontra, on the right side we have all axes at  
their default value, by activating “Show  
effective location” we can see the blend  
changes in detail.



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

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
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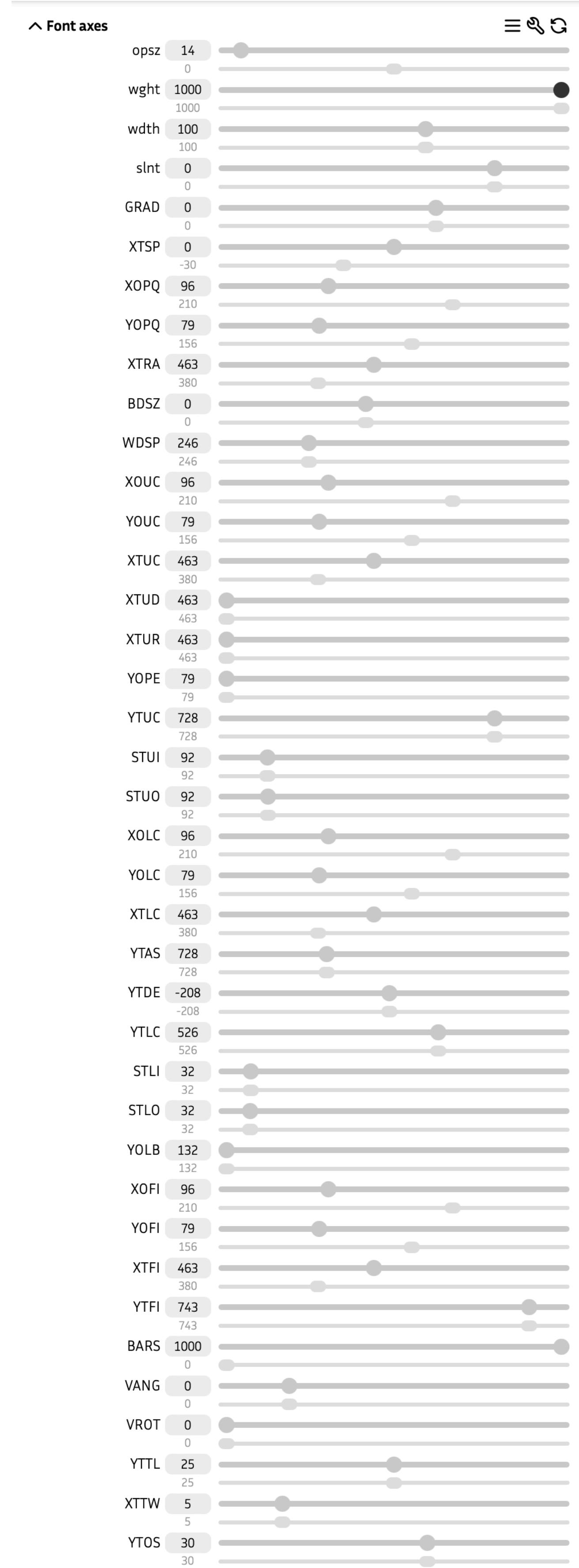
**Blended Location, 14-100-100**



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

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

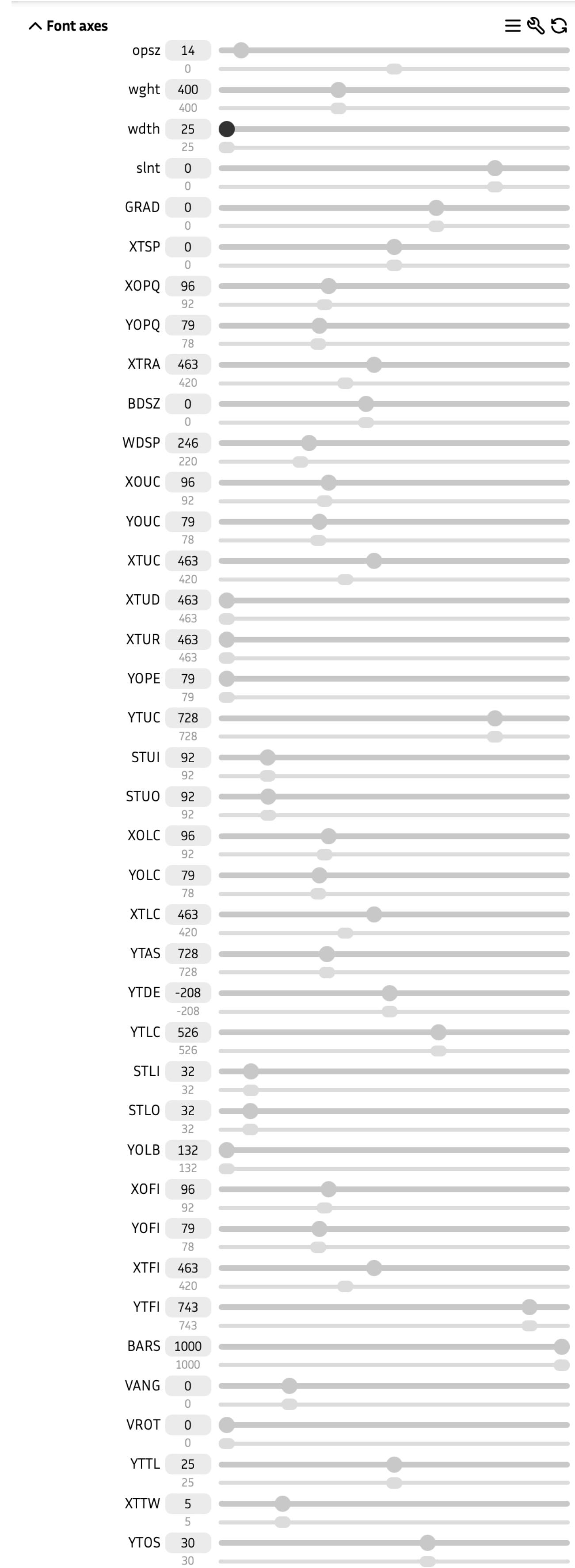
Blended Location, 14-100-1000



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

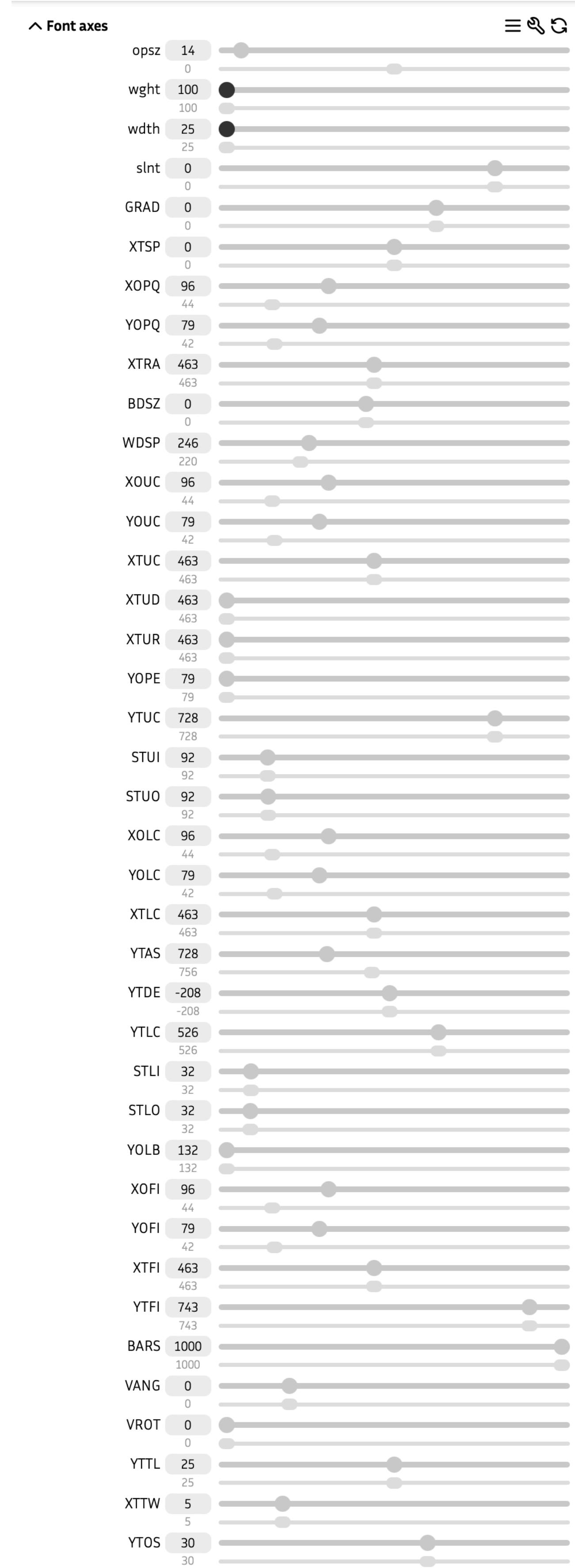
**Blended Location, 14-25-400**



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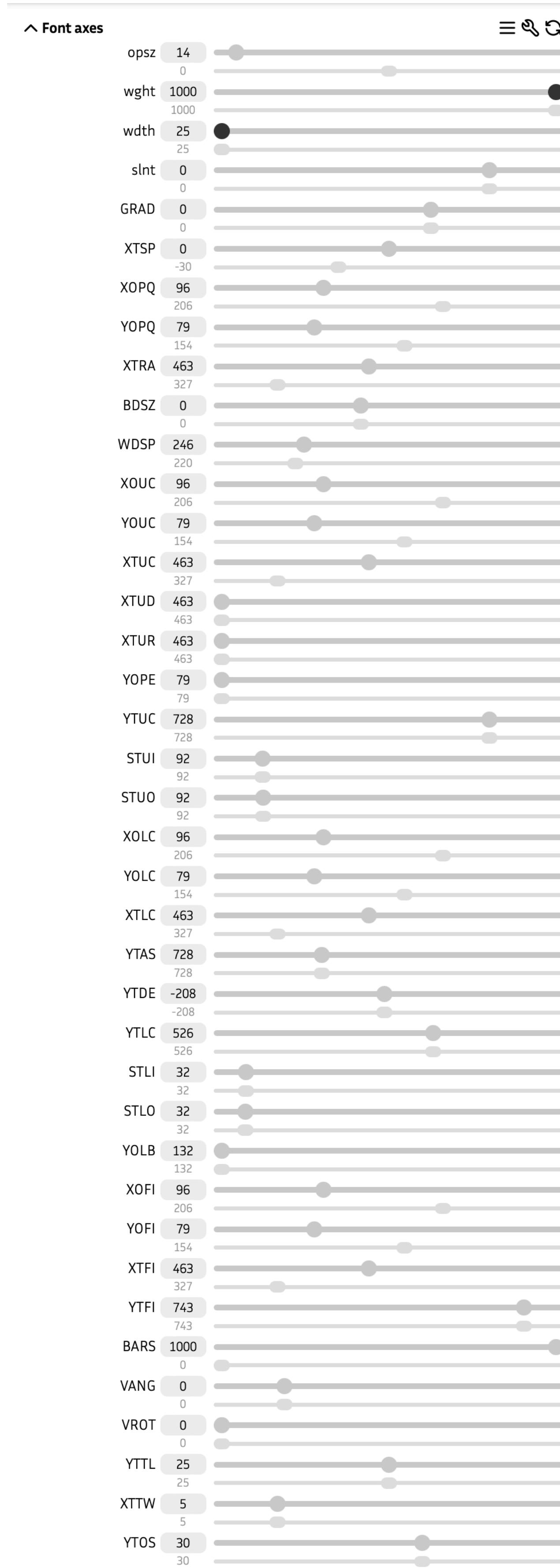
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**Blended Location, 14-25-100**



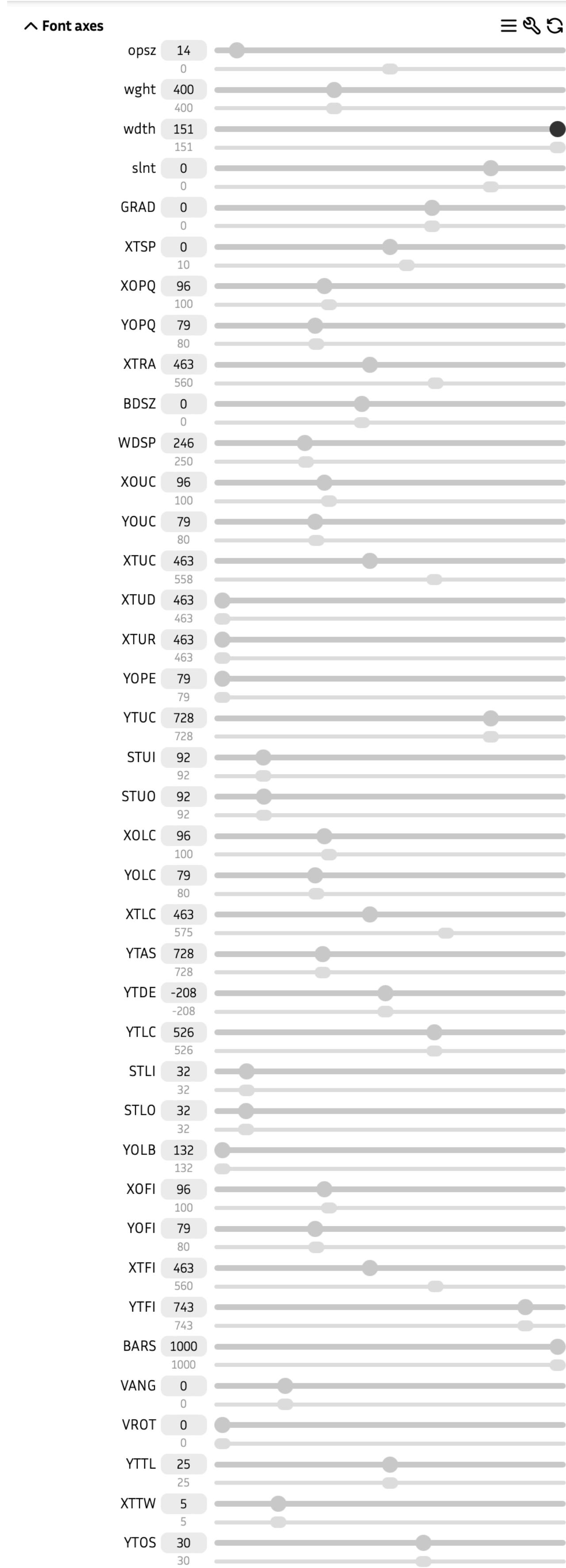
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ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
0123456789  
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**ABCDEFGHIJKLMNPQRSTUVWXYZ**  
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**0123456789**  
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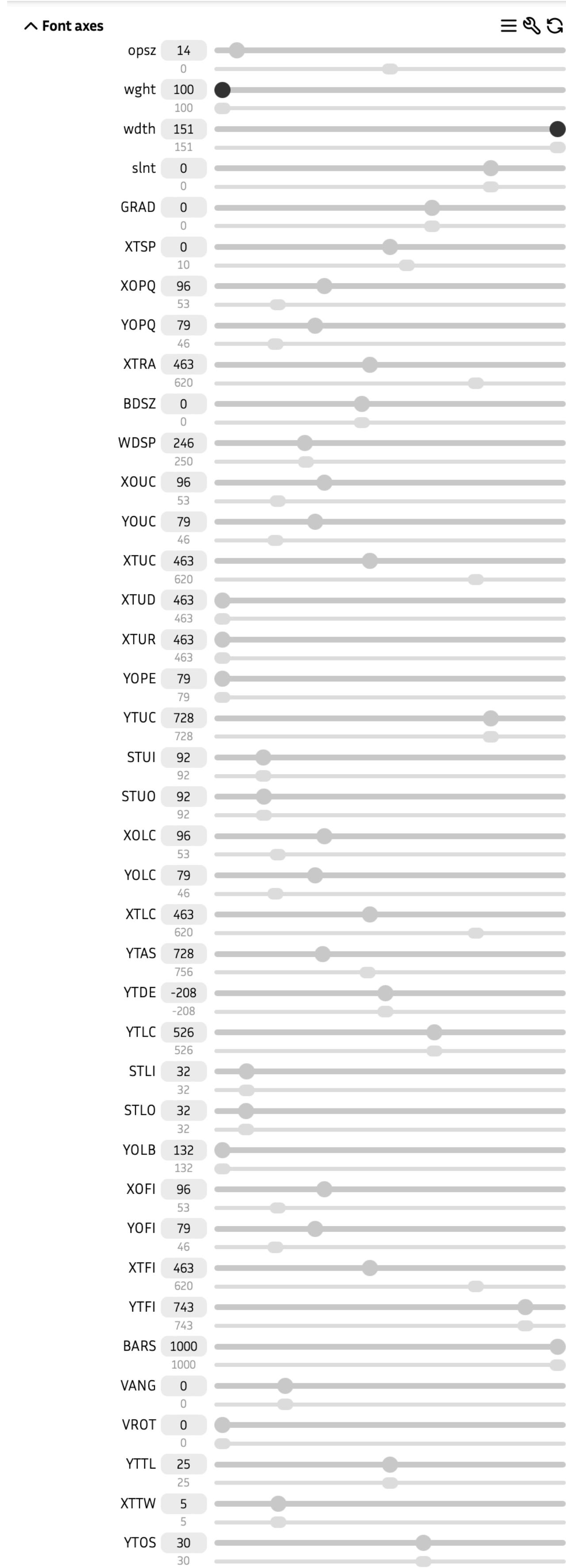
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**0123456789**  
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A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
a b c d e f g h i j k l m n o p q r s t u v w x y z  
0 1 2 3 4 5 6 7 8 9  
! " # \$ % & ' ( ) \* + , - . / : ; < = > ? @ [ \ ] ^ \_ ` { } ~

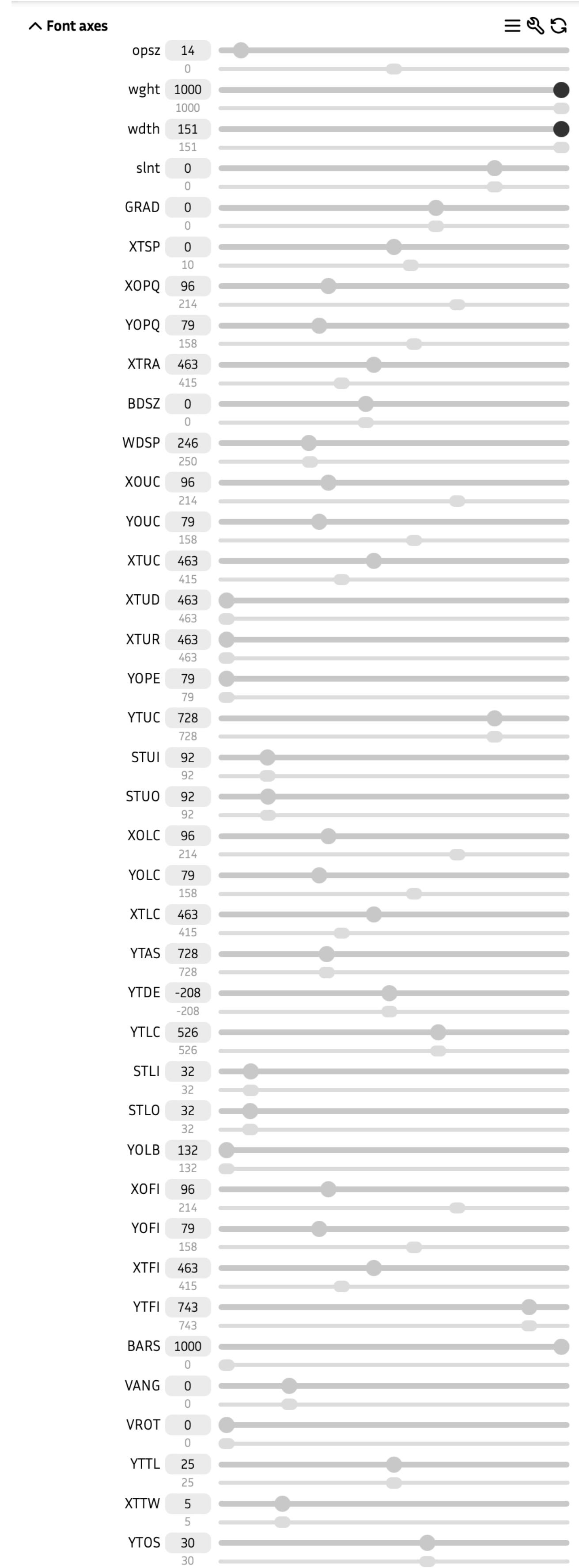
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0 1 2 3 4 5 6 7 8 9  
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**Blended Location, 14-151-100**



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 v w x y z  
0 1 2 3 4 5 6 7 8 9  
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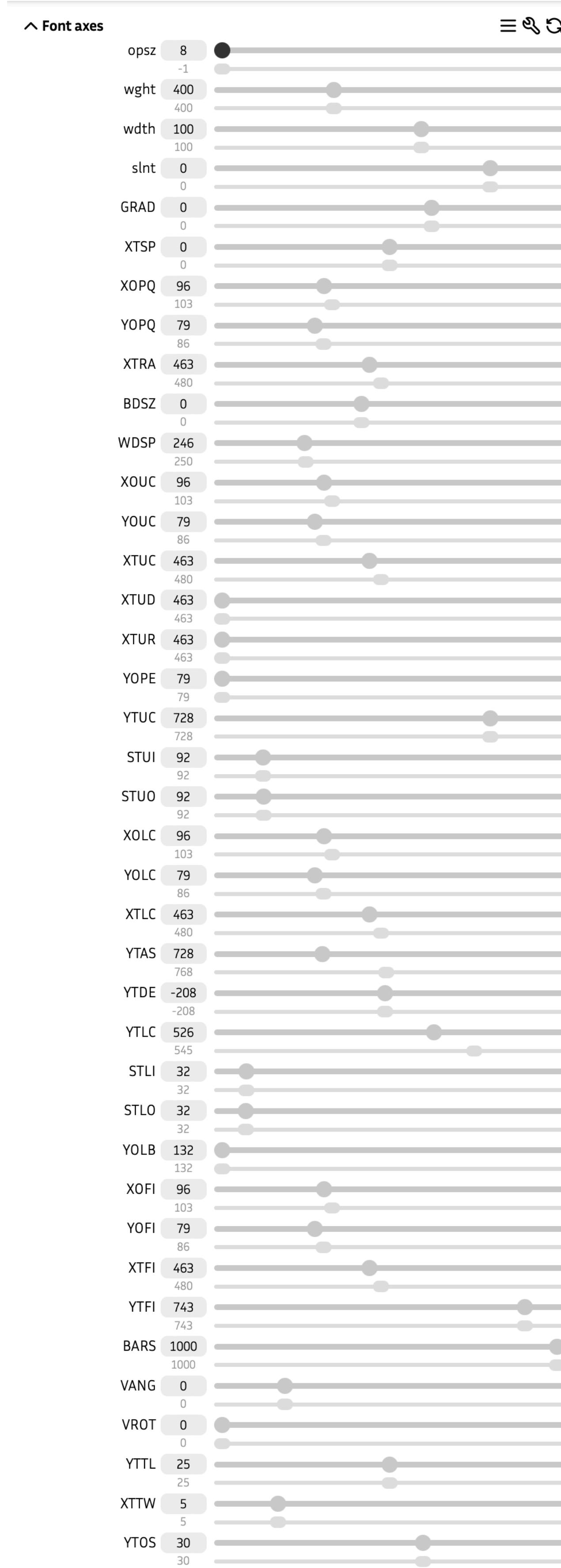
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0 1 2 3 4 5 6 7 8 9  
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**A B C D E F G H I J K L M N O P Q R S T U V W X Y Z**  
**a b c d e f g h i j k l m n o p q r s t u v w x y z**  
**0 1 2 3 4 5 6 7 8 9**  
**! " # \$ % & ' ( ) \* + , - . / : ; < = > ? @ [ \ ] ^ \_ ` { } ~**

**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 v w x y z**  
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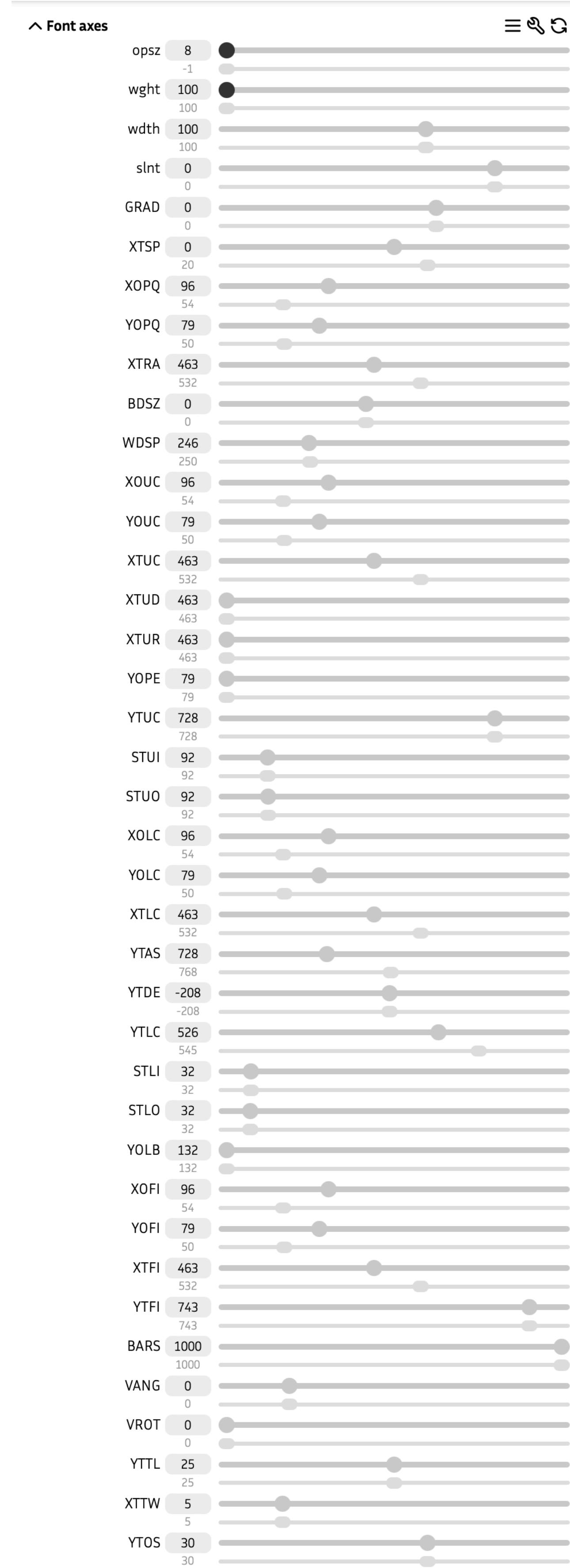
**Default Location, 8-100-400**



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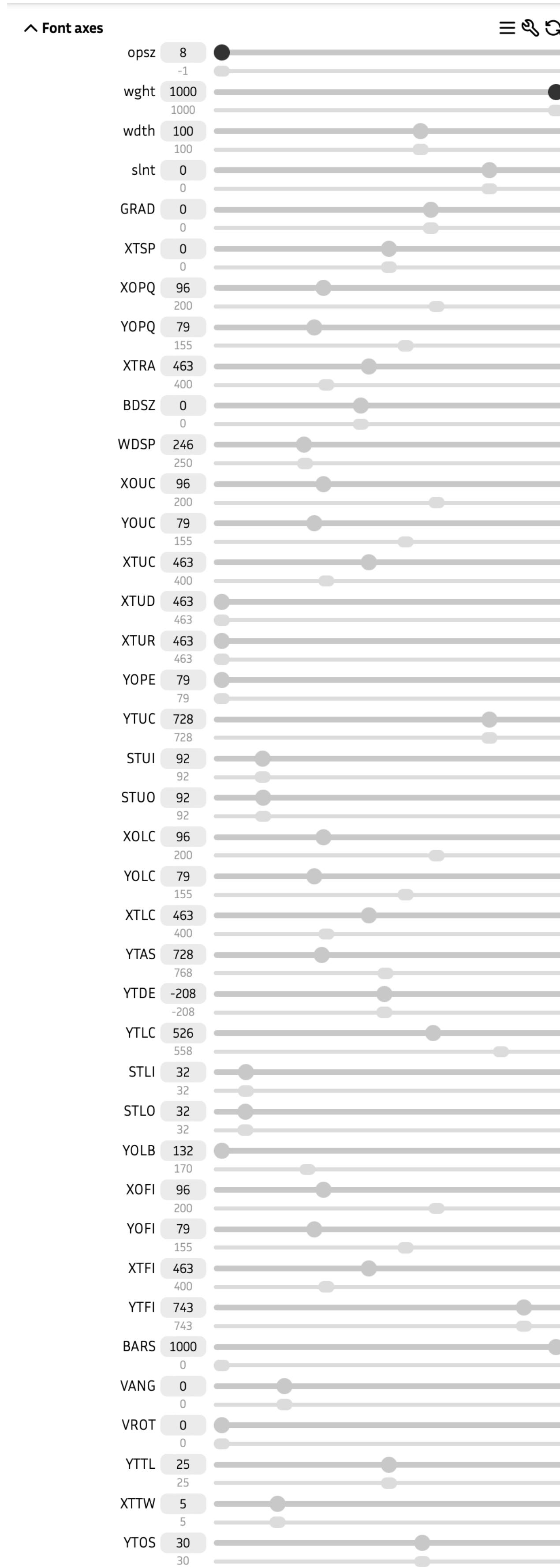
**Blended Location, 8-100-100**



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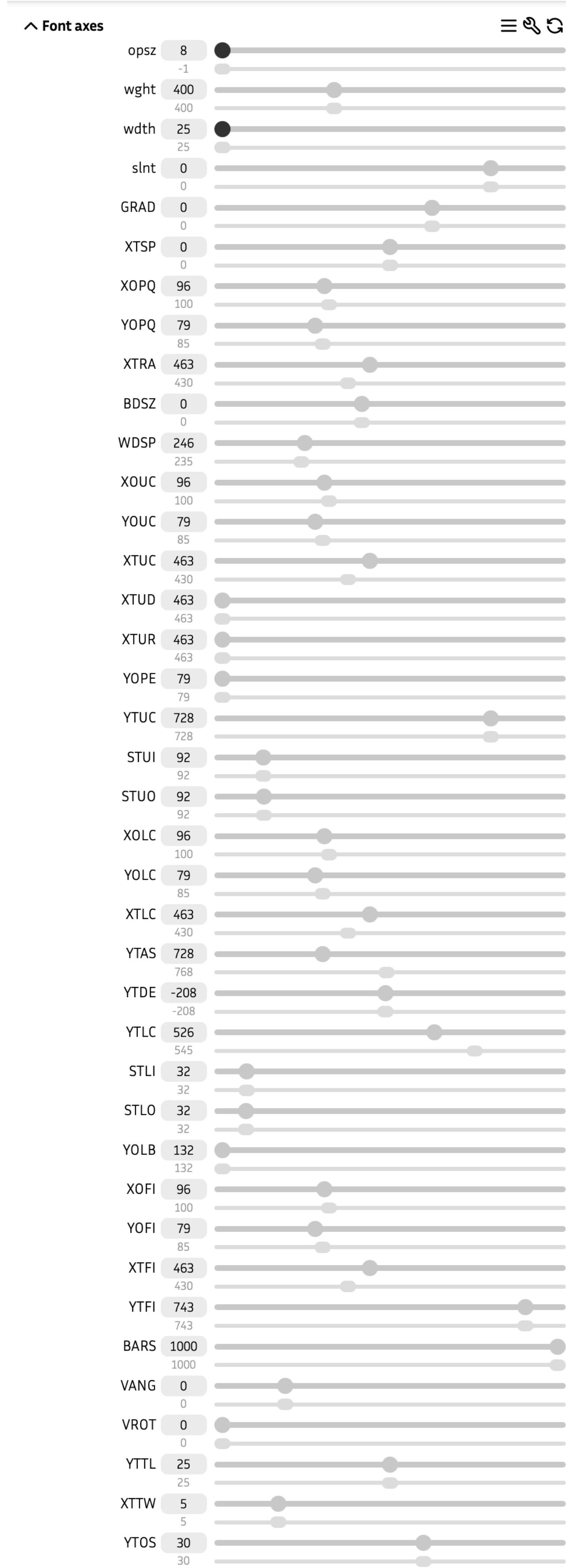
Blended Location, 8-100-1000



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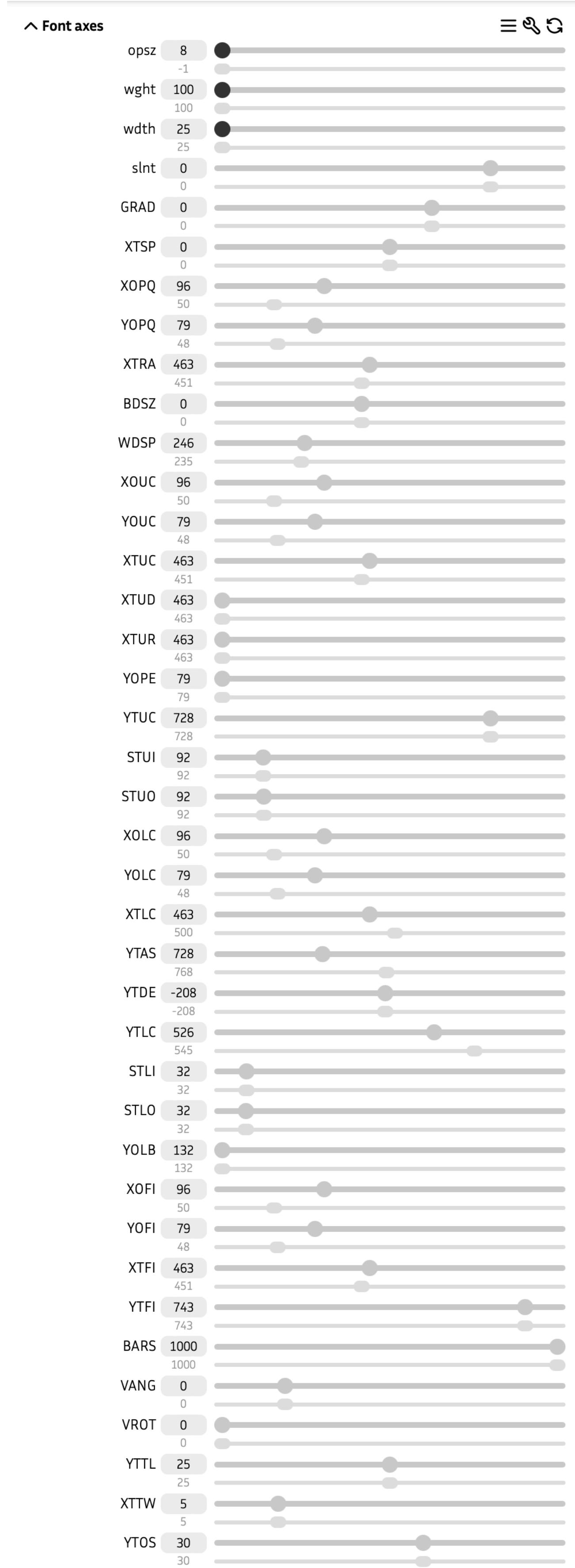
**Blended Location, 8-25-400**



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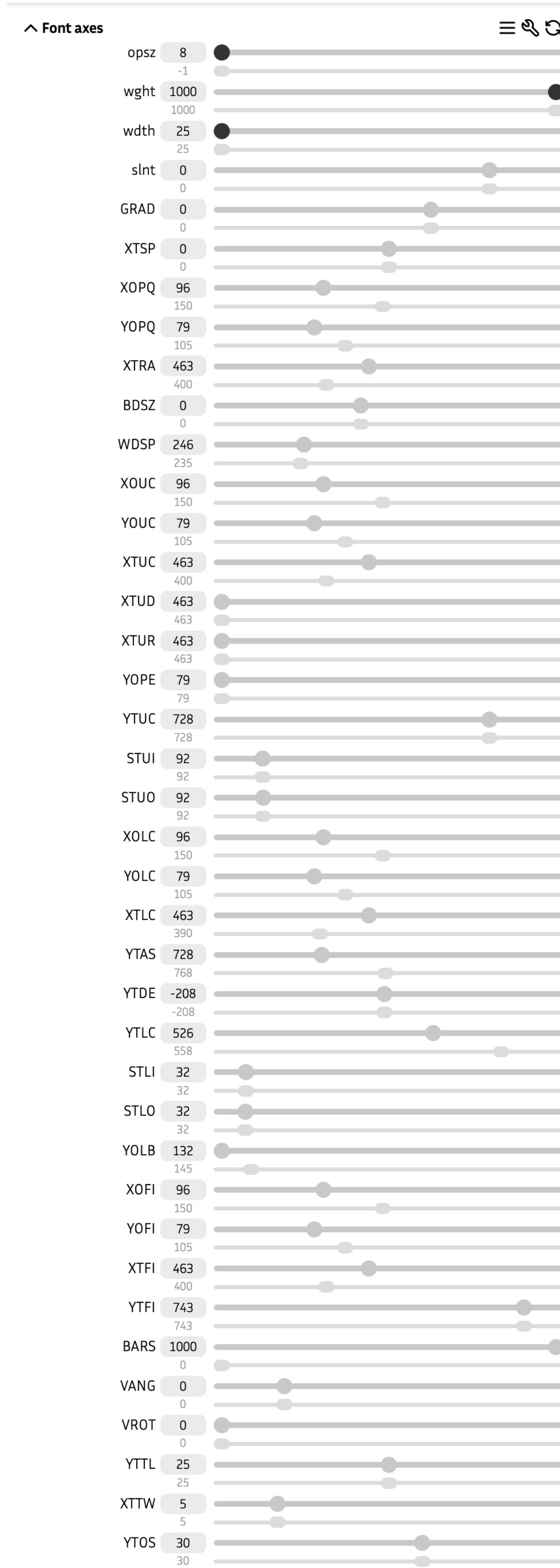
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**Blended Location, 8-25-100**



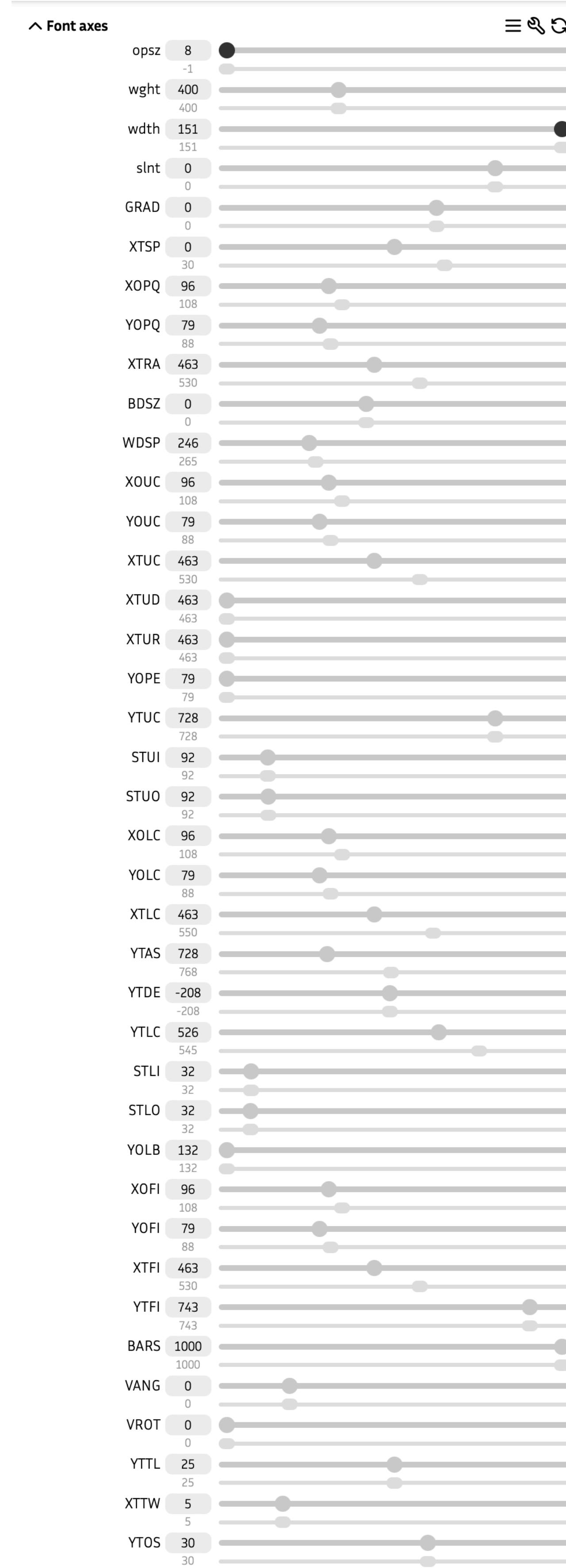
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ABCDEFGHIJKLMNOPQRSTUVWXYZ  
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ABCDEFGHIJKLMNPQRSTUVWXYZ  
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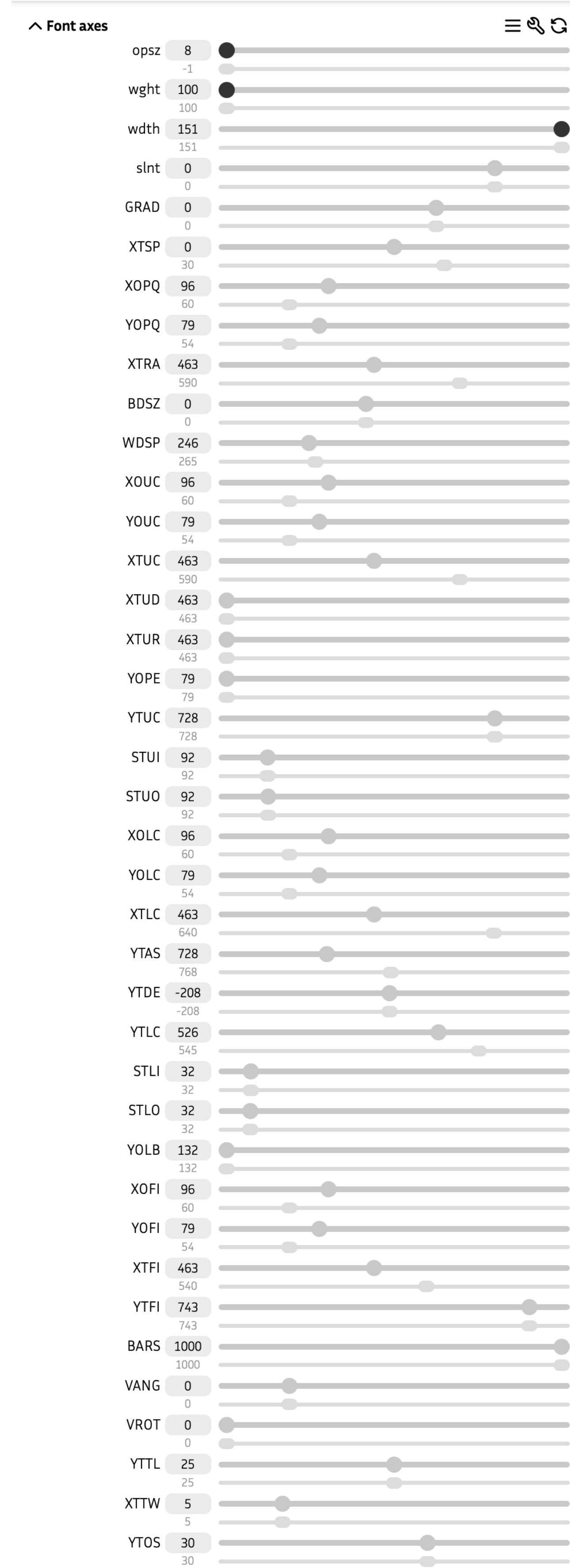
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0123456789  
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A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
a b c d e f g h i j k l m n o p q r s t u v w x y z  
0 1 2 3 4 5 6 7 8 9  
! " # \$ % & ' ( ) \* + , - . / : ; < = > ? @ [ \ ] ^ \_ ` { | } ~

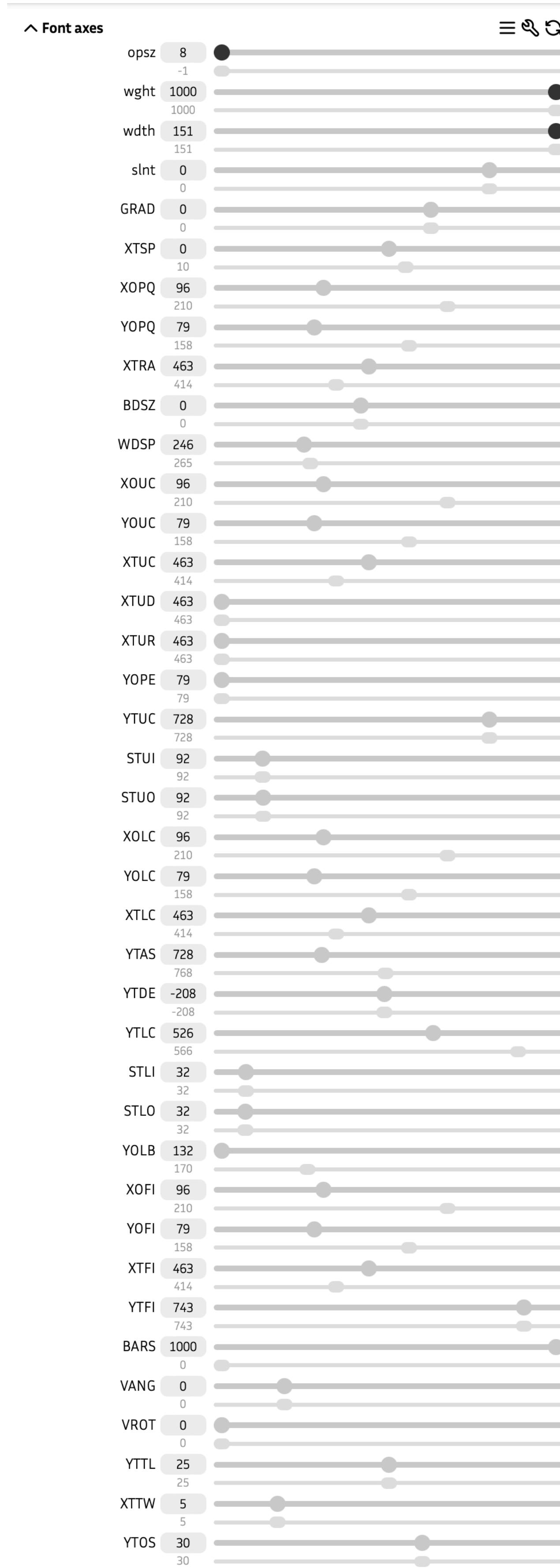
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
a b c d e f g h i j k l m n o p q r s t u v w x y z  
0 1 2 3 4 5 6 7 8 9  
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**Blended Location, 8-151-100**



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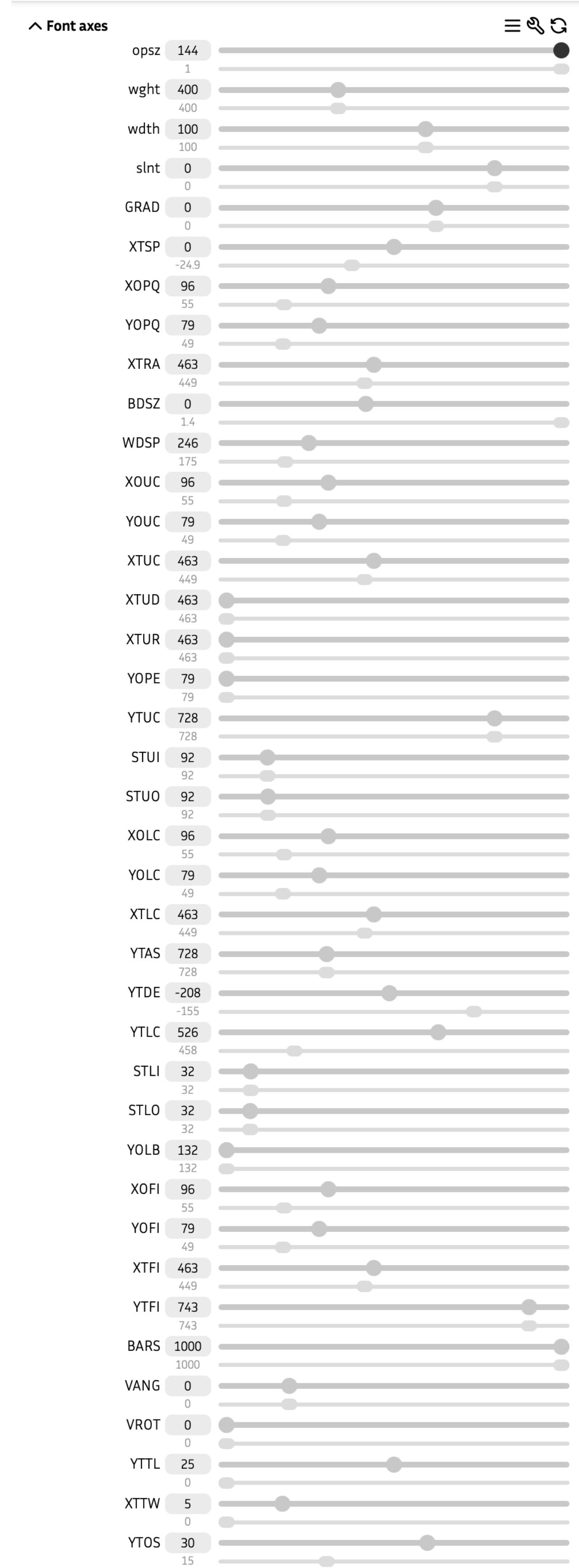
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0123456789  
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**ABCDEFGHIJKLMNPQRSTUVWXYZ**  
**abcdefghijklmnopqrstuvwxyz**  
**0123456789**  
**!"#\$%&'()\*+,./:;<=>?@[{}^\_`{|}~**

**ABCDEFGHIJKLMNPQRSTUVWXYZ**  
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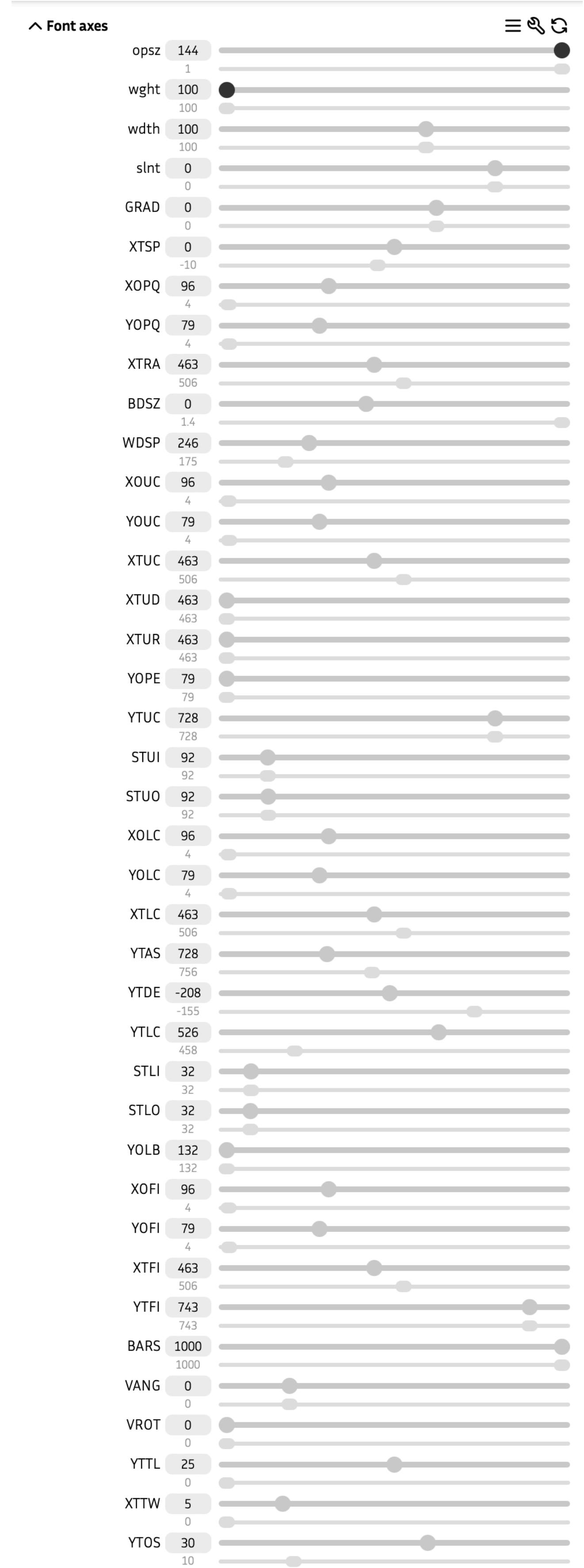
**Blended Location, 144-100-400**



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

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
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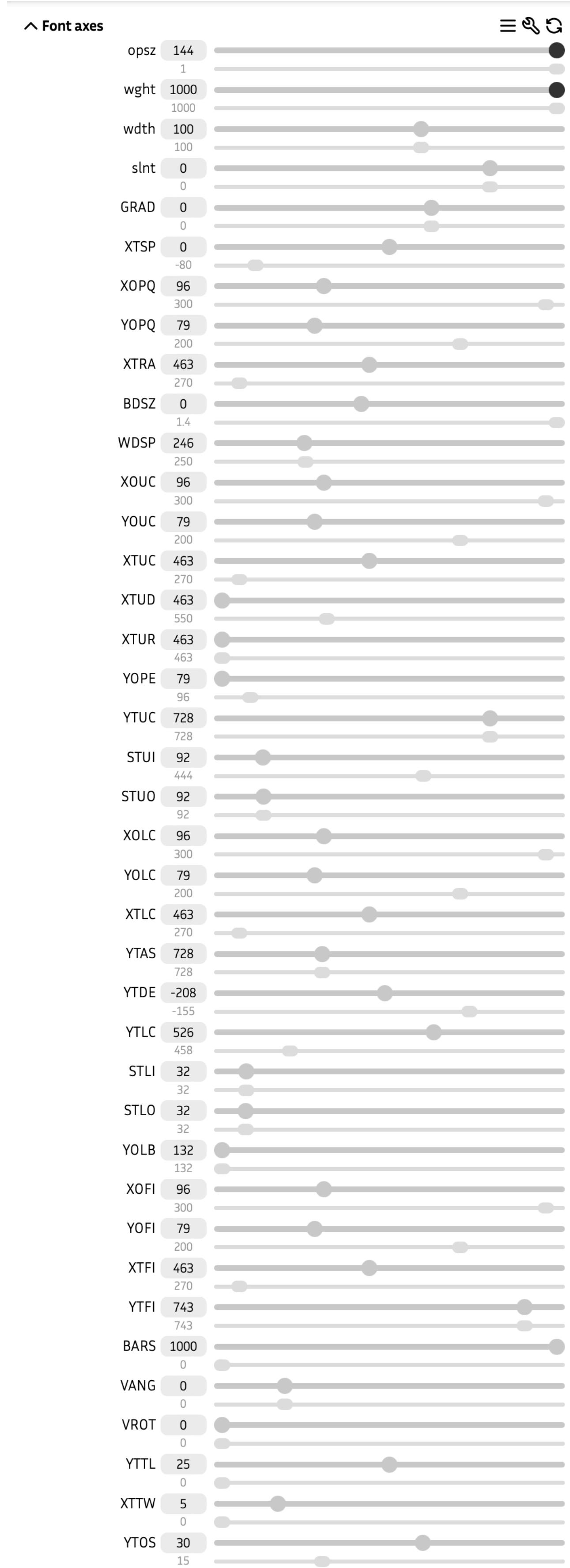
**Blended Location, 144-100-100**



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 v w x y z  
0 1 2 3 4 5 6 7 8 9  
! " # \$ % & ' ( ) \* + , - / ; < = > ? @ [ ] ^ \_ ` { } ~

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 v w x y z  
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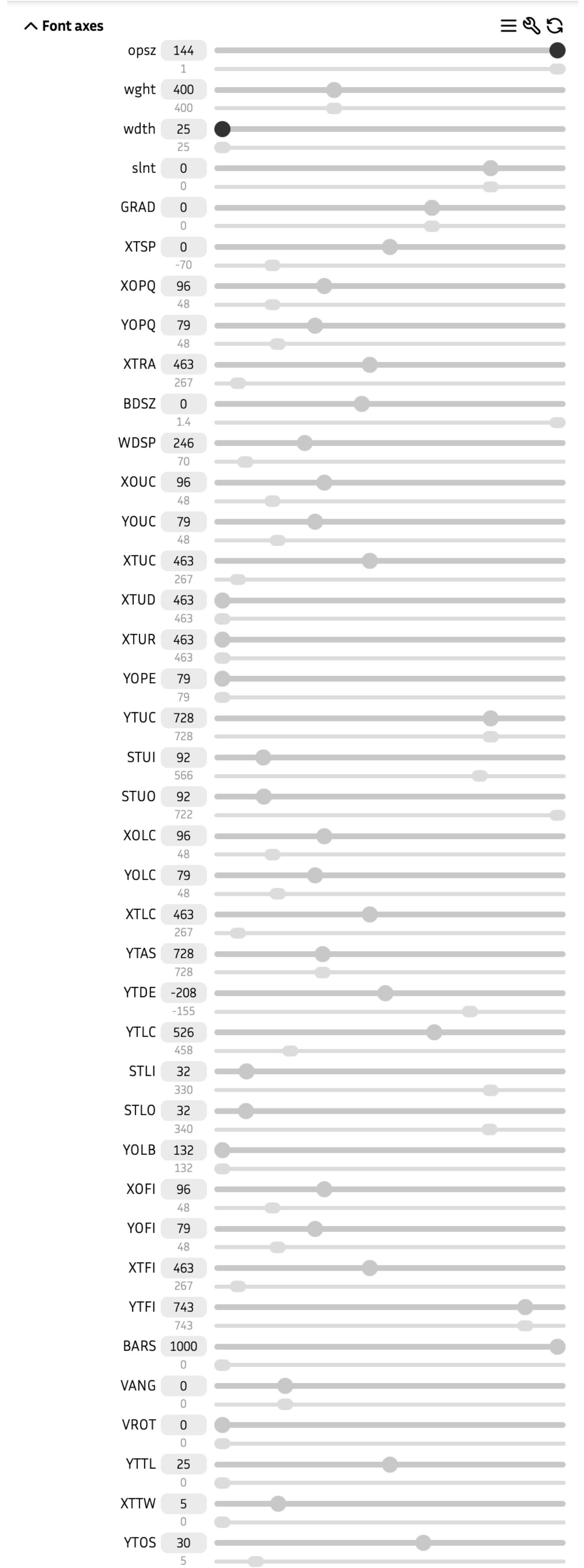
Blended Location, 144-100-1000



**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 v w x y z**  
**0 1 2 3 4 5 6 7 8 9**  
**! " # \$ % & ' ( ) \* + , - . : ; < > ? @ [ ] ^ \_ { } -**

**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 v w x y z**  
**0 1 2 3 4 5 6 7 8 9**  
**! " # \$ % & ' ( ) \* + , - . : ; < > ? @ [ ] ^ \_ { } -**

**Blended Location, 144-25-400**



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 v w x y z

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! " # \$ % & ' ( ) \* + , - / : ; < = ? @ [ ] ^ ' { } ~

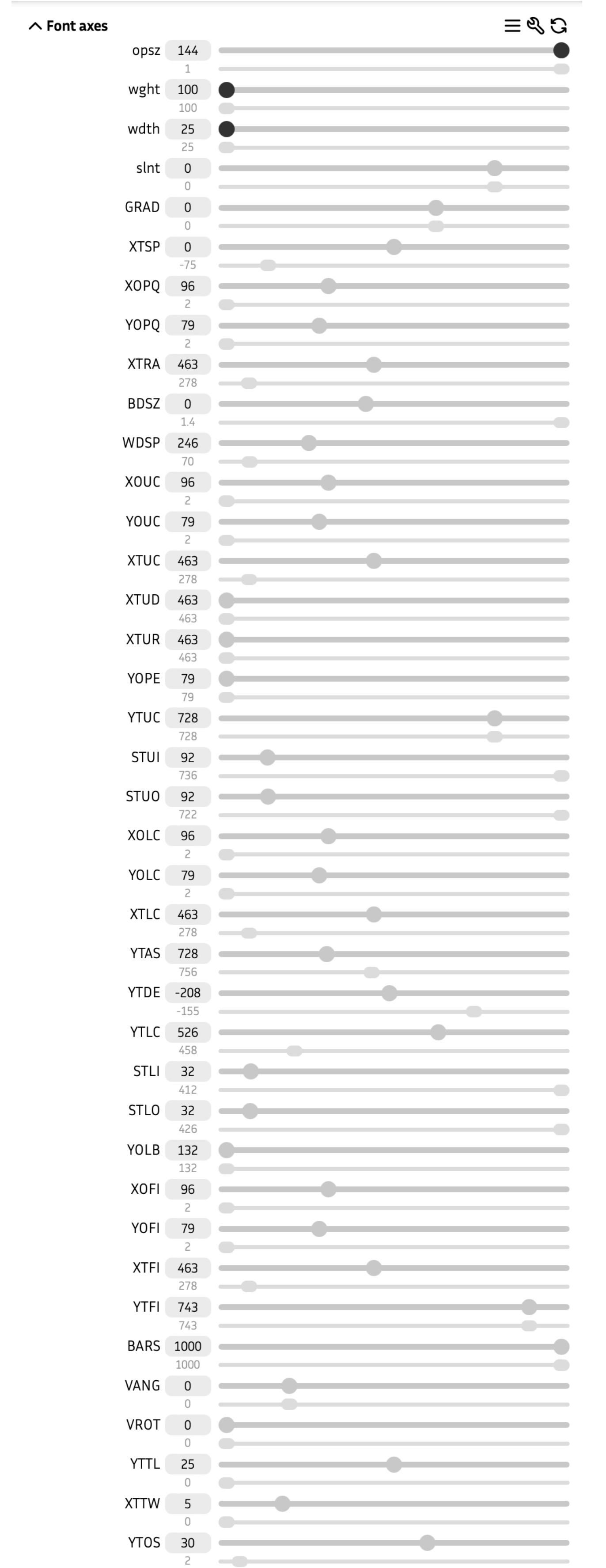
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a b c d e f g h i j k l m n o p q r s t u v w x y z

0 1 2 3 4 5 6 7 8 9

! " # \$ % & ' ( ) \* + , - / : ; < = ? @ [ ] ^ ' { } ~

## Blended Location, 144-25-100



A B C D E F G H I J K L M N O P R S T U V W Y Z

a b c d e f g h i j k l m n o p r s t u v w y z

0 1 2 3 4 5 6 7 8 9

! " # % & \* + - ( = ) ? [ ] ^ { } ~

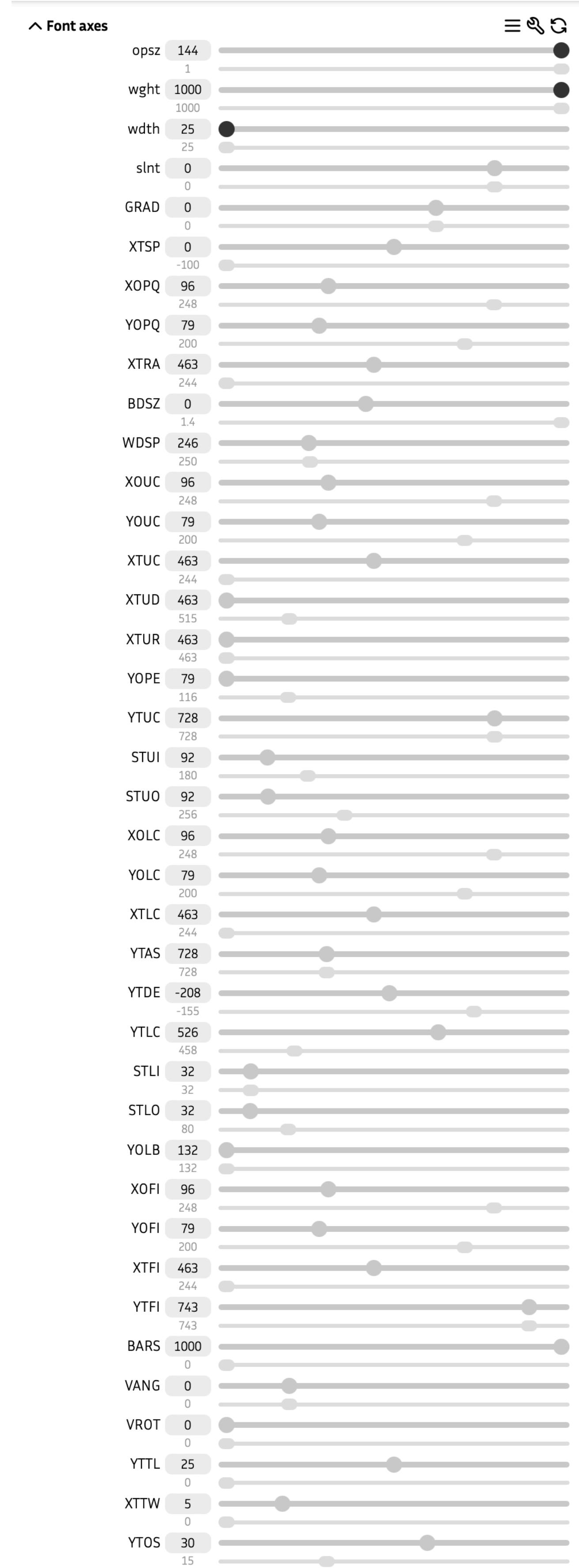
A B C D E F G H I J K L M N O P R S T U V W Y Z

a b c d e f g h i j k l m n o p r s t u v w y z

0 1 2 3 4 5 6 7 8 9

! " # % & \* + - ( = ) ? [ ] ^ { } ~

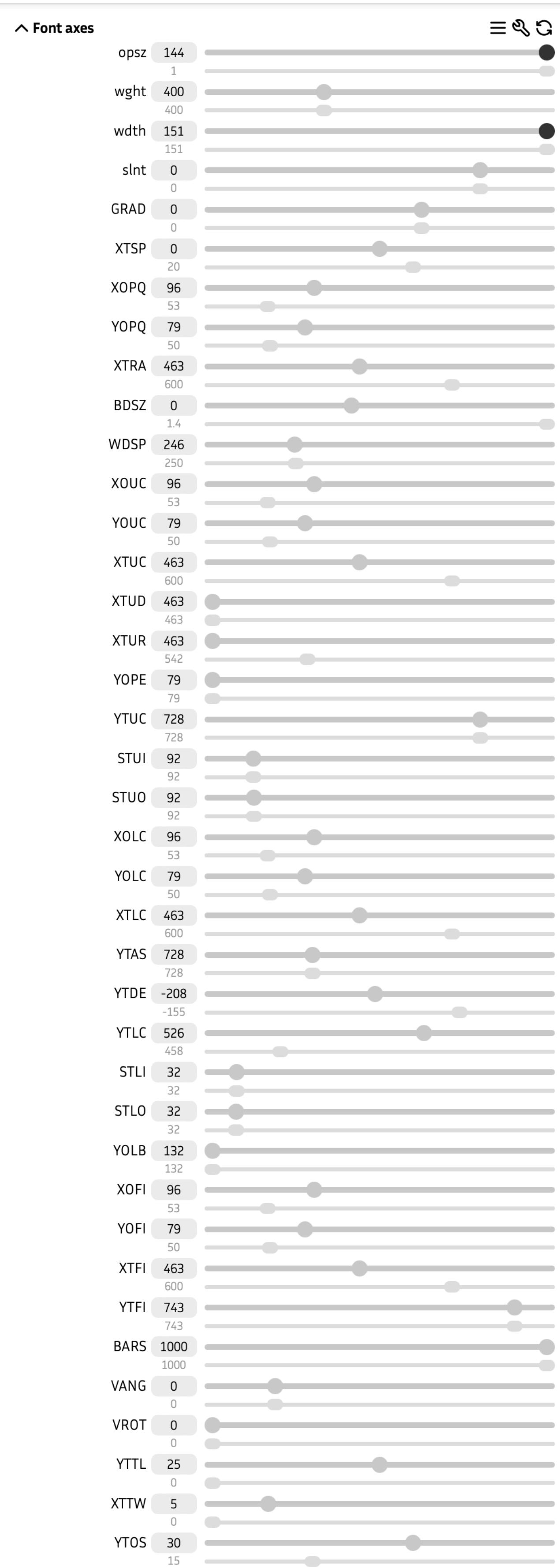
**Blended Location, 144-25-1000**



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**abcdefghijklmnopqrstuvwxyz**  
**0123456789**  
**!#\$%&'@[]^\_-`{-`{`}**

**ABCDEFGHIJKLMNOPQRSTUVWXYZ**  
**abcdefghijklmnopqrstuvwxyz**  
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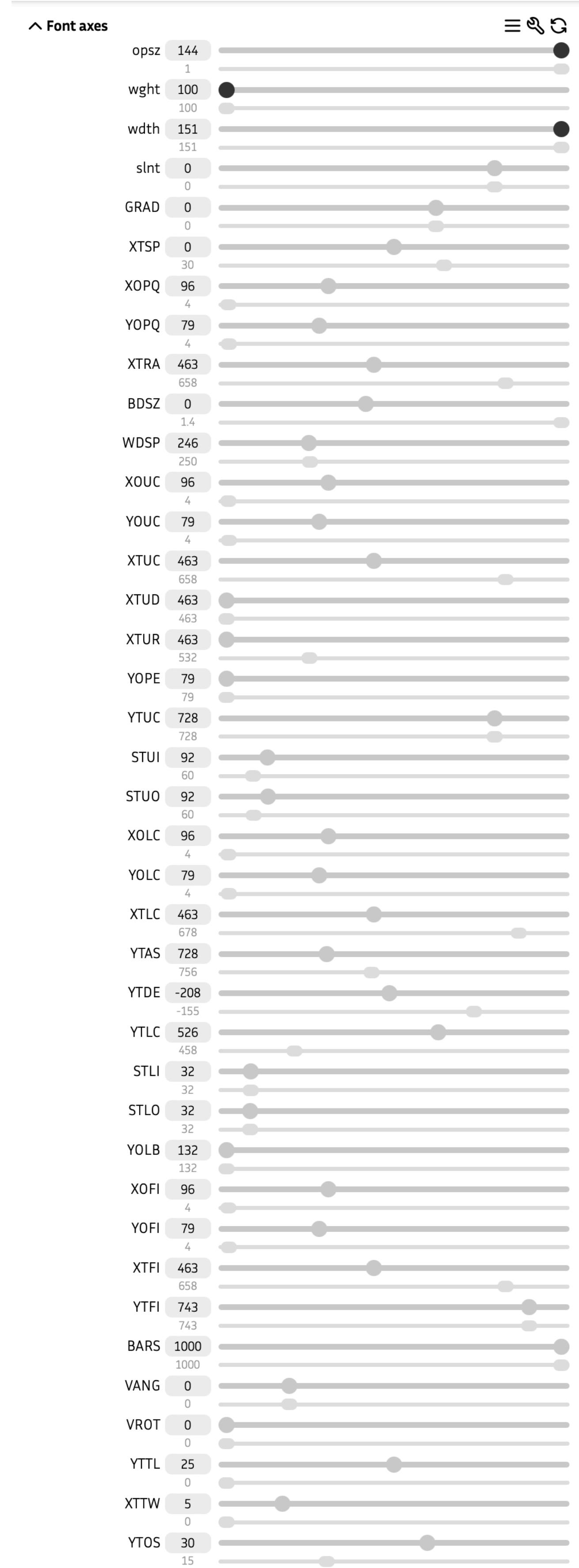
**Blended Location, 144-151-400**



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 v w x y z  
0 1 2 3 4 5 6 7 8 9  
!"#\$%&'()\*+, -./:;<=>?@[\]^\_`{|}~

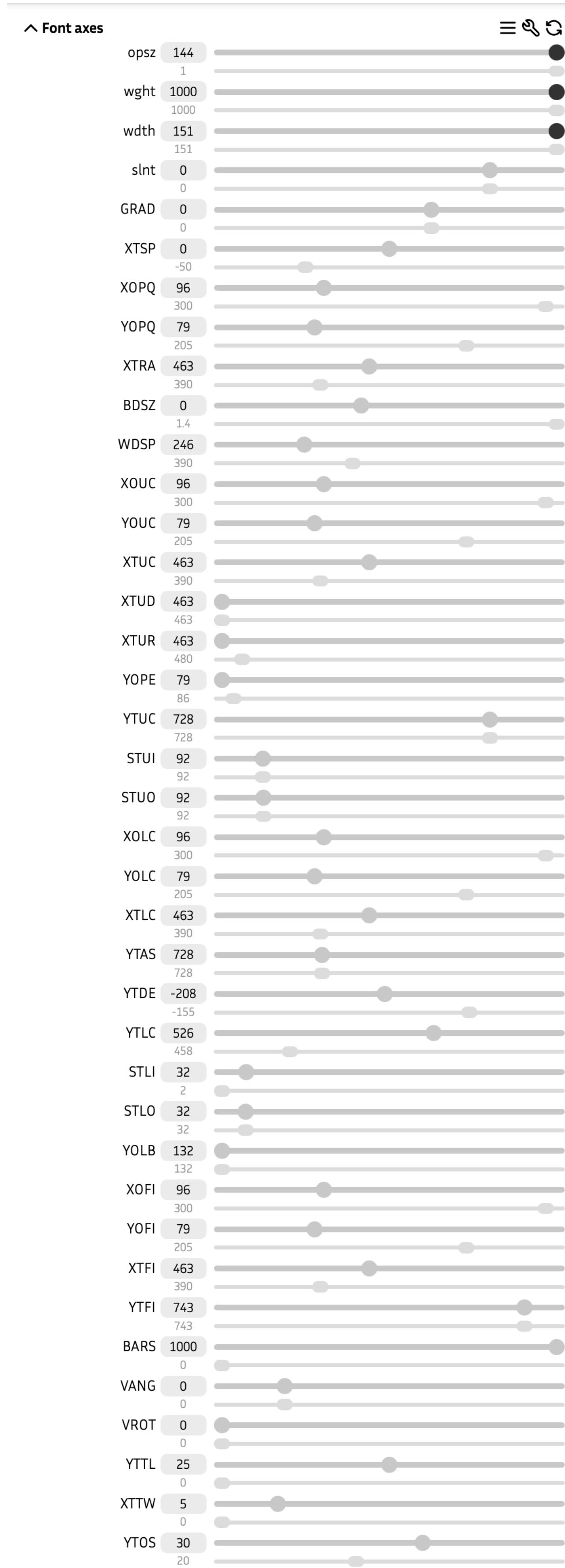
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
a b c d e f g h i j k l m n o p q r s t u v w x y z  
0 1 2 3 4 5 6 7 8 9  
!"#\$%&'()\*+, -./:;<=>?@[\]^\_`{|}~

**Blended Location, 144-151-100**



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 v w x y z  
0 1 2 3 4 5 6 7 8 9  
! " # \$ % & ' ( ) \* + , - / ; < = > ? @ [ \ ] ^ \_ ` { | } ~

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 v w x y z  
0 1 2 3 4 5 6 7 8 9  
! " # \$ % & ' ( ) \* + , - / ; < = > ? @ [ \ ] ^ \_ ` { | } ~



**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 v w x y z**  
**0 1 2 3 4 5 6 7 8 9**  
**! " # \$ % & ' 0 \* + , - . / : ; < > ? @ [ \ ] ^ \_ ` { } ~**

**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 v w x y z**  
**0 1 2 3 4 5 6 7 8 9**  
**! " # \$ % & ' 0 \* + , - . / : ; < > ? @ [ \ ] ^ \_ ` { } ~**