**Fonts with ttf files**

Demonstrations of using X3D’s <Text> and <FontStyle> nodes. This allows X3D to use .ttf (true type font) files and set the size, style (plan, bold italic, bold italic) and justification (left, center, right).

To run these demonstrations, place the .ttf files into Android Studio’s assets folder, same location as texture maps and .x3d files.

**font\_multipleFonsts.x3d**

Demonstrates multiple fonts in a scene.



The Cheap Sign Font has a 40 second animation from (0,0,-2) to (0,0,-3), (0,0-4), (0,0,-5) to (0,0,-10), stopping 4 seconds at each position. This helps see if there are any rendering issues as the image gets smaller. Markers along the way identify its location (0,0,-1.9), (0,0,-2.9), etc.

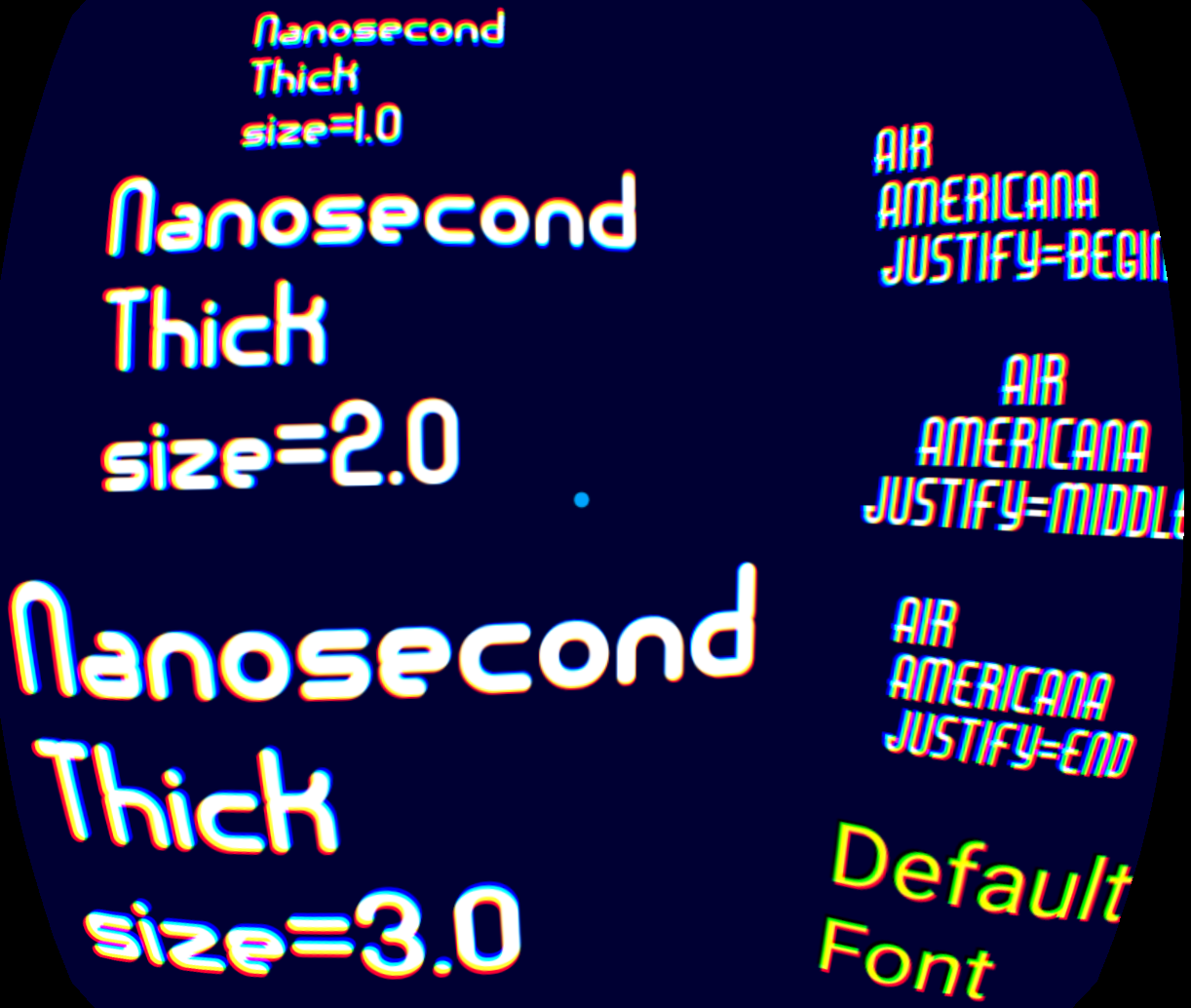


An animated green Cone was added to test with a non-text object.

**font\_sizeStyleJustification.x3d**

Demonstrates changing the font size, justification and style.

On the left is setting the ‘Nanosecond Thick’ font size to 1.0, 2.0 and 3.0.



On the right is the Prisma font style set to plain, bold, italic and bold-italic from top to bottom.

In the center is the justification set to begin (left edge), middle / centered, and to the end (right edge) using the ‘Air Americana’ font. The right edge doesn’t appear to work in GearVR, however, an internally build 2d Android app showing fonts the settings used in our code is correct.



At the bottom is a default font and no X3D <FontStyle> settings. Material diffuseColor = (1, 1, 0) yellow.

**font\_def\_use.x3d**

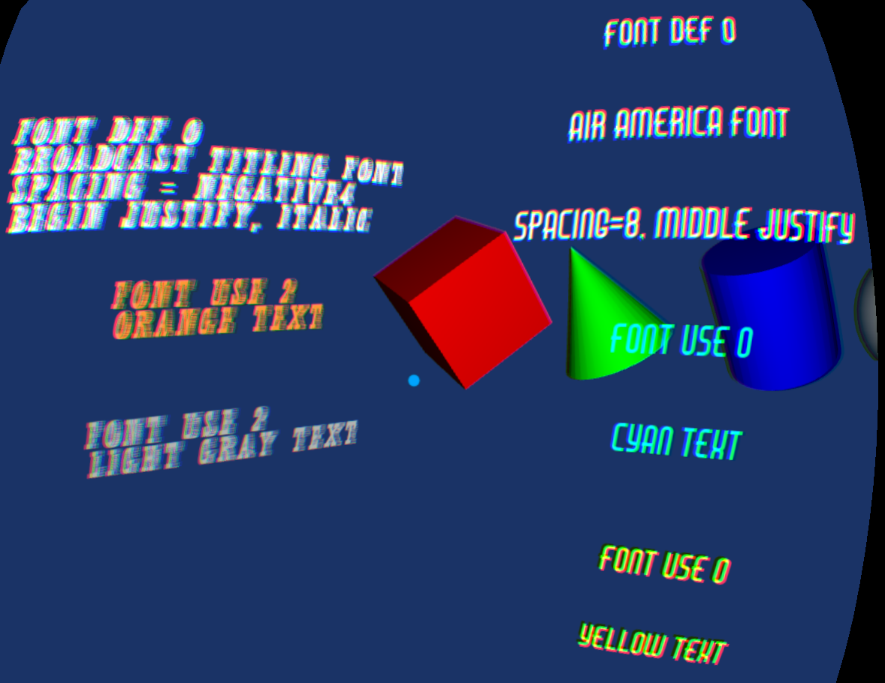
Demonstrates sharing the <FontStyle> node for several declarations of Text using X3D’s DEF and USE command on the <FontStyle> node. Thus, defining one <FontStyle> can be shared in multiple places.

On the right side, we are using the ‘Cheap Sign’ font and sizing 1.5 (default size is 1), plus right justifying so each set of text lines up against its right edge. Note that doesn’t mean the 3 text boxes will line up as they are independent of each other. The top text defines the Font Style, and the lower two text boxes which set their text diffuse color to red and green are sharing the font style.

The center set of text uses ‘Air Americana’ font, center justified and spacing between lines as 8. The cyan and yellow text fellow uses the same font style.



The left side uses ‘Broadcast Tiling’ font with spacing = -4 (thus the text looks squished) and justify left.



The red, green, blue and gray box, cone, cylinder and sphere in the scene are interspersed throughout the demo just to randomize the scene a bit.