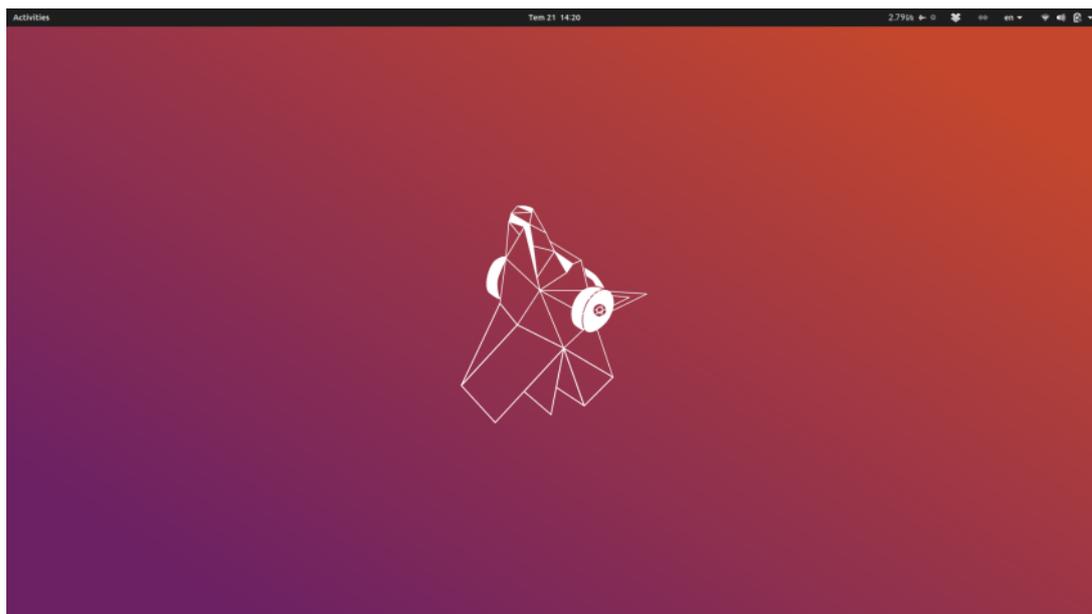# The Status of Fractional Scaling (HiDPI) Between Windows & Linux

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There?s a special type of displays commonly called ?HiDPI?, which means that the number of pixels in the screen is doubled (vertically and horizontally), making everything drawn on the screen look sharper and better. One of the most common examples of HiDPI are Apple?s Retina displays, which do come with their desktops and laptops.

However, one issue with HiDPI is that the default screen resolutions are too small to be displayed on them, so we need

what?s called as ?scaling?; Which is simply also doubling the drawn pixels from the OS side so that they can match that of the display. Otherwise, displaying a 400×400 program window on a 3840×2160 display will give a very horrible user experience, so the OS will need to scale that window (and everything) by a factor of 2x, to make it 800×800, which would make it better.

Fractional scaling is the process of doing the previous work, but by using fractional scaling numbers (E.g 1.25, 1.4, 1.75.. etc), so that they can be customized better according to the user?s setup and needs.

Now where?s the issue, you may ask? Windows operating system has been supporting such kind of displays natively for a very long time, but Linux distributions do lack a lot of things in this field. There are many drawbacks, issues and other things to consider. This article will take you in a tour about that.

[4]

Also: Vulkan 1.1.116 Published With Subgroup Size Control Extension [5]

GNU Graphics/Benchmarks Linux

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**Source URL:** http://www.tuxmachines.org/node/126125

**Links:**
[1] http://www.tuxmachines.org/taxonomy/term/144
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