

Raster and Vector Graphics

1 RASTER

Raster graphics are a group of computer graphics that use pixels and a bitmap to display an image. Currently (2022), this is the most common form of computer graphics that appear on the internet, however, this is subject to change with the rise of vector graphics.

Raster graphics are an adaptation of the technology used in televisions to display stuff, limited by the amount of pixels on a screen: the resolution. These graphics are great at displaying photographs and other non-line art images, as each pixel can be influenced separately from others, rather than having to rely on rudimentary shapes. However, higher resolutions come at the cost of requiring increasingly high storage. On top of that, scaled up images can lead to the appearance of a pixelated image.

There are many raster graphic file types, such as .png, .gif, and .jpeg. Most of these came as a result of trying to fix former file types.

1.1 EXAMPLES

<https://spicata.github.io/mint-fresh-notes/assets/Buns%20-%20Raster%202.png>

<https://spicata.github.io/mint-fresh-notes/assets/Frog%20-%20Raster%204.png>

<https://spicata.github.io/mint-fresh-notes/assets/Place%20-%20Raster%203.png>

<https://spicata.github.io/mint-fresh-notes/assets/Seagull%20-%20Raster%201.png>

<https://spicata.github.io/mint-fresh-notes/assets/Coconut%20-%20Raster%205.png>

2 VECTOR

Vector graphics are a group of images that are rendered through the use of mathematical formulae that define their shape. Due to this limitation, they often simply contain lines, curves, and other rudimentary shapes.

These are the best for designs due to their similarity, however, is not as great for photographs and other complex images. These vector images are most commonly used for fonts and logos, as they can be scaled up without losing resolution, and they also take up less storage.

They are often in the .pdf or in .svg.

2.1 EXAMPLES

<https://spicata.github.io/mint-fresh-notes/assets/Vector%201.svg>

<https://spicata.github.io/mint-fresh-notes/assets/Vector%202.svg>

<https://spicata.github.io/mint-fresh-notes/assets/Vector%203.svg>

<https://spicata.github.io/mint-fresh-notes/assets/Alpha-Particle.svg>

<https://spicata.github.io/mint-fresh-notes/assets/copilot.svg>

3 BIBLIOGRAPHY

- Wikipedia. (2022). Raster graphics. In *Wikipedia*.
https://en.wikipedia.org/w/index.php?title=Raster_graphics&oldid=1112926310
- Wikipedia. (2022). Halftone. In *Wikipedia*. <https://en.wikipedia.org/w/index.php?title=Halftone&oldid=1111951422>
- The Printing Connection. (2011, July 1). Raster Images vs. Vector Graphics. *The Printing Connection*.
<https://www.printcnx.com/resources-and-support/additional-resources/raster-images-vs-vector-graphics/>
- Britannica. (n.d.). *Raster graphics | Definition, Examples, Advantages, & Facts | Britannica*. Retrieved 11 October 2022, from <https://www.britannica.com/technology/raster-graphics>
- Clipping Path India. (2018, June 9). History & the Story of Various Raster Image Formats. *Clipping Path India*. <https://www.clippingpath.in/blog/history-various-raster-image-formats/>
- The Printing Connection. (2011, July 1). Raster Images vs. Vector Graphics. *The Printing Connection*.
<https://www.printcnx.com/resources-and-support/additional-resources/raster-images-vs-vector-graphics/>
- Dvornechuck, A. (2022, March 30). *Vector vs. Raster: Which is Better for Logo?* Ebaqdesign.
<https://www.ebaqdesign.com/blog/vector-raster-logo>

3.1 IMAGES

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