Varihue

Varihue is a subtractive coloring system invented in YE 41 that is found in paints and inks which use microscopic beads to represent any color in the CMYK color space. By using electrical signals, these tiny beads can be dilated and fixed into a given color until reset or reprogrammed. This is often used to draw an image on a surface that can be readily reprogrammed on everything from a piece of paper, to clothing, to a ship's hull. It is best suited to the humanoid eye with a refresh rate of 15 frames per second. It is inferior to Omnihue, but supported as a niche product and is more likely to become a generic technology.

This color system was invented by Kage Yaichiro in YE 41 for use in a hypothetical Star Army Uniform. The idea was that the uniform could use this system to display patches/rank and alter its panel color to whatever was necessary for the soldier wearing it. This would make future modernizations simple, would eliminate the need for sewn-on patches, and would simplify overall production by consolidating it into a single panel type. It was developed in parallel with the more advanced Omnihue technology as a secondary option, in case Omnihue's technological hurdles proved insurmountable. Once Omnihue was ironed out, however, it proved itself in almost every way superior. Varihue became a niche product, destined to be support for legacy equipment that used CMYK inks as well as a nanomachine-free technology for less technologically advanced markets(or markets that use the inferior technology to make knock offs instead of paying for Omnihue).

Each otherwise transparent and microscopic bead has within it a tiny bit of cyan, magenta, yellow, black, or white pigment in the center along with limited microtechnology that allows it to function. This pigment can be shrunken to be so small as to be nearly imperceptible, or expand to color the entire bead's internal surface area. Selecting either of these modes of dilation or any intensity in between is possible by a specific type of electrical pulse. By varying the intensity of each bead's dilation, it is possible to emulate any color in the CMYK color space used for typical printing. As the pigment is then fixed in position until the next electrical pulse is applied, it only consumes power when changed.

Varihue does not have the best color representation possible, nor is it power efficient when employed with high refresh rates. Efforts to use the system to display video at refresh rates above 15 frames-per-second can lead to ghosting.

- Producers: Yugumo Corporation, Ketsurui Zaibatsu, Other Manufacturers
- Cost: Inexpensive

Properties Breakdown

- Adds the ability to program images and colors with microscopic precision
- Covers the CMYK color space
- Retains image until reprogrammed
- Inexpensive to produce
- Provides no protective armor benefit on its own

OOC Notes

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