title:

Bitwise Splitting and Merging of Pixels / A Sunday Afternoon on the Island of La Grande Jatte

**work website:**

https://kenjikojima.com/bitwiseSunday/

artist:

kenji kojima (he/him)

abstract:

The ability to make countless genuine copies is the most significant advantage of digital art. This artwork video can be shared freely. The project is about manipulating the colors of binary. All forms of media today are represented in binary. The artist thought about possibly exchanging or transforming their data into alternative formats. When we represent these media in digital works, we inevitably return to the realm of binaries. The artwork was inspired by Georges Seurat, who sought to engage the viewer's eye by optically blending colors rather than physically mixing them. The algorithm uses bitwise XOR with random numbers and splits the original image into two mosaics using encryption. The project's algorithm, which uses bitwise XOR operations with random numbers, splits the original image data into two mosaics using an encryption technique known as a one-time pad. Kojima, an artist, is based on the idea that the outside world is like a code and that human senses can decipher and feel it. Conceptually, the resulting pair of mosaic images can be compared to a cipher and a key. It also converts pixel color values into musical notes using Kenji Kojima's RGB Music method. The project video shows first the merging of the two mosaic data sets back into the original image, and then the splitting of the original image.
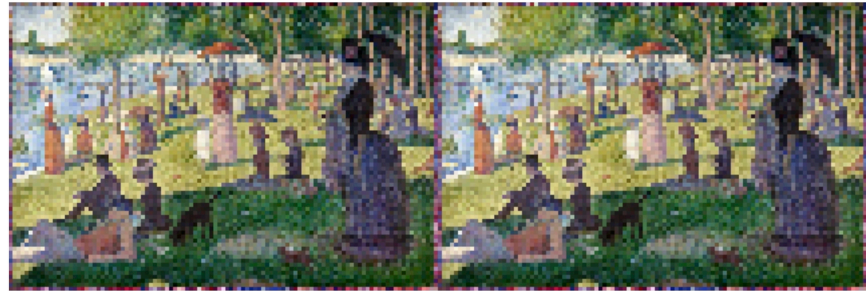
Red:
Left Pix 01011001
11010001 Right Pix
10001000

Green:
Left Pix 01011010
11010110 Right Pix
10001100

Blue:
Left Pix 11001001
01011110 Right Pix
10010111

Red:
Left Pix 01100101
11011110 Right Pix
10111011

Green:
Left Pix 10100100
01100010 Right Pix
11000110

Blue:
Left Pix 11011010
00010010 Right Pix
11001000