



BASIC BINARY GRAPHICS

www.basicbinarygraphics.crypto
www.basicbinarygraphics.com

BBG is the first objectively scarce and mathematically limited collection of basic binary graphics, permanently tokenized on the blockchain as immutable NFTs.

I. Pixel

A pixel is the smallest single component of a digital image, the **most basic unit**. It cannot be further divided. In web graphics, one pixel (px) is formally defined as 1/96 of an inch, making it a square with a side of 0.2645833333 mm. The pixel is very small but also ubiquitous, serving as the fundamental building block of every photo or digital graphic.

II. Color

Each pixel can only have one color; it can't be multicolored. The most basic colors are **white and black**. Black and white are also the simplest colors because they can be represented by only one bit of data (0 for black and 1 for white). All other colors require more data.

III. The simplest graphics

Thus, the simplest and most basic form of digital graphics is a single **pixel in either white or black** color. This type of graphic cannot be further simplified, divided into smaller parts, or be multicolored. It is so basic that it is stored as a single "bit" (the smallest unit of information), representing its color with either 0 (black) or 1 (white).

IV. 2x2 pixel square

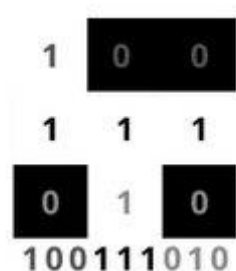
The smallest square that can be created using pixels is a 2x2 pixel square, consisting of a total of 4 pixels. There are **16 possible combinations** of arranging black and white pixels in a 2x2 pixel square (2^4). This means there are only 16 unique 2x2 black and white pixel squares. It's a mathematical limit, and no more 2x2 black and white squares can ever be made, making them rare and limited by nature.

V. 3x3 pixel square

The next smallest square that can be created has a side length of 3 pixels, consisting of a total of 9 pixels (3x3 px). There are **512 possibilities** (combinations) of arranging B&W pixels in a square of this size (2^9), and no more 3x3 black and white pixel squares will ever be created. This limitation is determined by mathematical combinations.

VI. Binary code

Black and white pixels can be represented as **0 or 1**, corresponding to the binary code used to store their color information. So, every black and white graphic can be represented as a sequence of zeros and ones, where 0 is a black pixel, and 1 is a white pixel. Similarly, any graphic can be easily recreated from a sequence of 0s and 1s. E.g., the number **100111010** is a binary code for the following graphic:



VII. The collection

All possible combinations of 2x2 pixel and 3x3 pixel squares (16 and 512 graphics, respectively) were generated, while their original pixel size was maintained. This is how a collection of the most basic graphics was created. The collection is exhaustive: containing every possible variation. No additional black and white graphics of this size can ever be created, making this collection objectively limited and rare. While it is possible to create infinitely larger squares, the number of combinations increases significantly, making them less scarce (65,536 combinations in a 4x4 pixel square).

VIII. Permanence and Immutability

The collection, along with complemented metadata files, was uploaded to an immutable and permanent blockchain storage solution (Arweave). Finally, a contract on Ethereum was deployed, and all of the 'Basic Binary Graphics' were minted as NFTs.

Now, the most basic binary graphics can be owned and transferred.

Own a piece of the Digital Universe.

This whitepaper was uploaded on the Arweave blockchain on 01/11/2023 by PN.