

Hendeka: Making Art Using Modulus 11

Artworks

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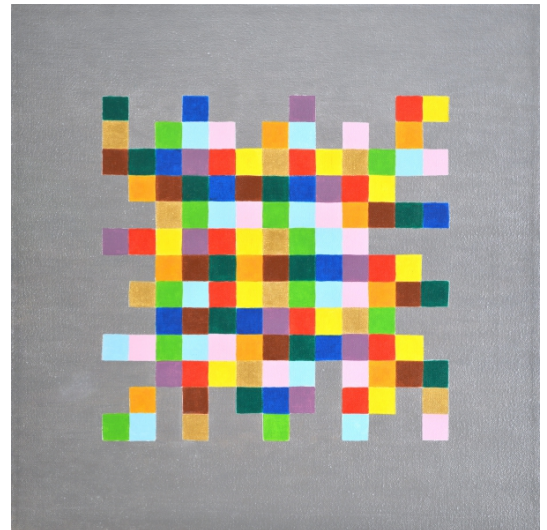


HendeKar: The artist wrote an algorithm to calculate Modulus 11 and to render a color for the check digit. Starting with her license plate of the car, it calculates the next 124 numbers. If it finds a 10, it renders gold. The visual result is the artwork Hendeka.

Abstract

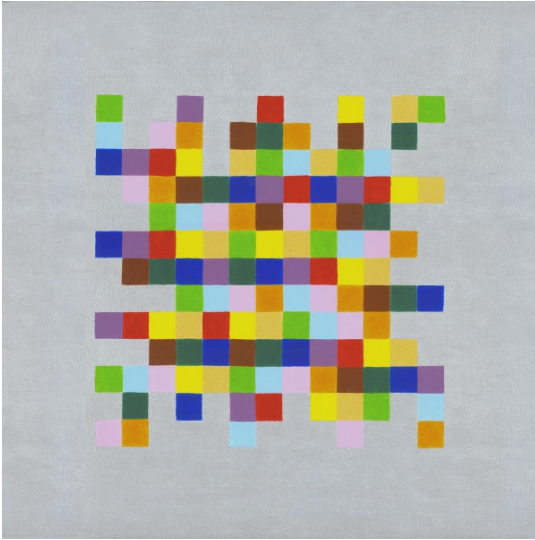
A check digit is an authentication mechanism used to verify and validate the authenticity of a series of characters such as a single mistyped digit or a permutation of two successive digits, thus avoiding typing errors.

The last number of every Chilean id card is the check digit that is calculated using Modulus 11 [1]. Each digit in the base number is assigned a multiplication factor. The sum of the products is divided by 11. If the remainder is zero, the check digit is zero. For all others, the remainder is subtracted from 11. The result is the check digit. Also, the check digit of Chilean cars license plates is calculated using the same algorithm and uses a conversion table to convert letters to numbers [2].



Hendeka

Hendeka: Is the artwork resulting from using her Chilean id card as a seed for the same algorithm. She started with her id number and calculated the next 124 check digits.



HendeKar

Key words: Math Art, Generative Art, Modulus 11

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References

- [1] Ministerio de Justicia- Registro Civil
[https://www.registrocivil.cl/PortalOI/Manuales/Validacion de Run.pdf](https://www.registrocivil.cl/PortalOI/Manuales/Validacion_de_Run.pdf)
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