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A method for covertly embedding encrypted information into raster images using coordinate masking

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The paper proposes a method for hidden encryption of text information that combines the symmetric AES algorithm and elements of visual steganography. The text is encrypted using a 128-bit key presented in hexadecimal format, and the encryption result is also converted into hexadecimal blocks. A JPG image is used as a container, which is segmented into fragments. The coordinates for embedding encrypted data are determined based on paired key values. Each block of encrypted text is encoded as a color value and embedded in the corresponding image segment. The proposed approach provides an additional level of security by combining cryptographic and steganographic protection.

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