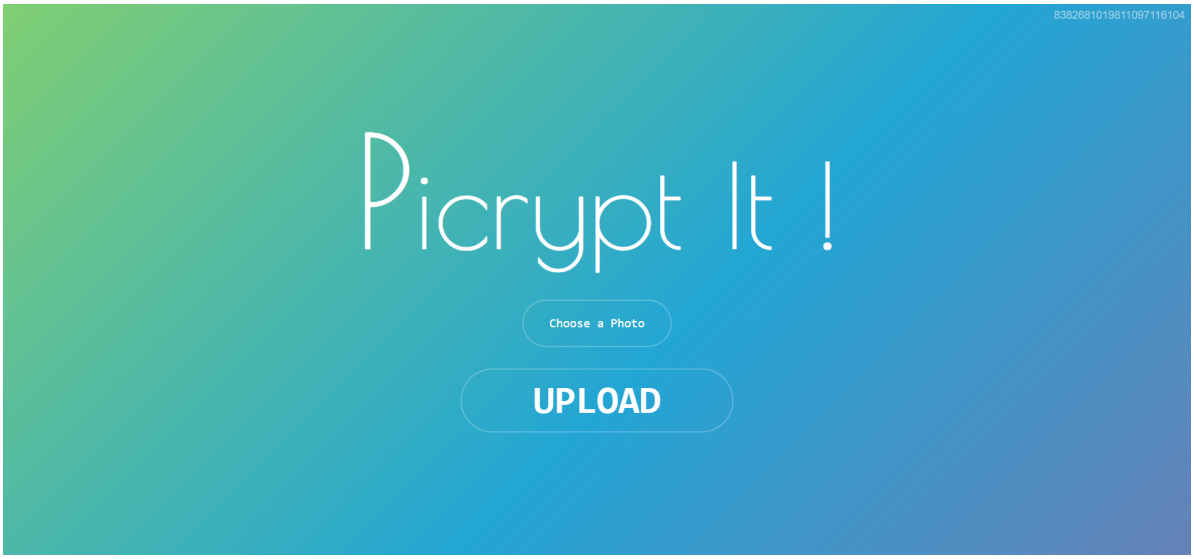

Abstract

Inspired by the idea “why to send less, when you can send more”, Picrypt is user-friendly, click-to-go-like software with a clean and simplistic user interface, which allows a user to inscribe a digital color image with passcode protected messages. This image then can be downloaded and saved locally, which then can be sent anywhere across the globe digitally, while the data message remains protected and preserved throughout. The passcode with which the messages are inscribed acts as the key for the successful decryption of the messages inscribed within the image.

Project Description

Billions of images are shared among people every day. Sometimes, however, we often require sharing a description of the image as well. For example, a journalist often has to report to their higher authorities with a detailed description of the situation, along with the corresponding photographs. Picrypt brings up a method that does not require sending the description of the image separately, rather, the image itself could be inscribed with its description, or any other message, which then can also be locked with a passcode, to protect the message from being read by the unintended users. Thus, the journalist now just can inscribe the image with its description, and just need to share the image with the higher authority. Also, there is no scope of reaching the data to unintended authorities, since the data in the image is password protected, there is no way that unintended authorities can access the data inscribed within the image. Picrypt has proved to be a simple, button-based, click-to-go mechanism based software, which allows its users to inscribe images with texts, with few mouse-clicks. Picrypt comes pre-packed with all the required dependencies for inscribing an image with password-protected texts. Picrypt also facilitates the decryption of images for the inscribed message with the correct password. In the backend, Picrypt uses the state of pixel intensity values of a color image for inscribing encrypted data into the image pixel-by-pixel, while preserving the original components, details, quality, and aspect ratio of the image. While no raw data is inscribed into the image, rather, the data is encrypted with Vernam Cipher and Playfair Cipher before inscribing. Also, an odd/even parity check is implemented in order to maintain the consistency of the data.

Installation Instructions

1. Download the repository as a ZIP file
2. Extract the downloaded file
3. Run Picrypt-It.exe