

Rapid Detection of Stego Images Based on Identifiable Features

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Abstract—An increasing number of images in the Internet brings forward a higher requirement on the speed of steganalysis. For the problem of real-time detection of stego images, a method of images steganalysis rapidly based on identifiable features is proposed, where the identifiable features are specific character sequences left in stego images by steganography tools. According to finding whether an image contains these features can judge reliably the image is stego or cover. Meanwhile, for multiple identifiable features appearing on the same location of an image, an algorithm of identifiable features recognized based on AC (Aho-Corasick) multi-features matching algorithm is proposed, which can improve the detection speed. Experiment shows that the steganalysis method proposed can achieve a perfect detection precision, and the detection speed can be improved significantly comparing with traditional methods (matching bytes one by one).

Keyword—Steganalysis, Identifiable features, Steganography tools, AC algorithm, Stego image detection.



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