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Adams

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[54] MEDIA-INDEPENDENT DOCUMENT SECURITY METHOD AND APPARATUS

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[57] ABSTRACT

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A method and apparatus for providing media-independent security for a document may be programmed to create a document file having two or more components. In one embodiment, a document may include a background object, an image object (e.g. text, graphic, both, or the like), and a watermark object. When output, the image object is directly interpretable by a user. Meanwhile, in the background object, watermark object, or both, a high-resolution pattern may be stored to be output with all copies of the document. Encoded in some binary symbol in the pattern is security data. Resolution is high enough that the binary symbols are undetectable by a human eye. A processor may be programmed to recognize (e.g. read) the pattern, decode the pattern into binary data, and decode the binary data to characters directly interpretable by a user. Information relating to creation and control of a document, signature, or the like, may all be encoded independent from the principal image (e.g. text, graphic), to be virtually undetectable by human eyes, yet non-removeable by copying methods, including photocopying, scanning, electronic storage, and the like.

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[51] Int. Cl.⁶ **H04L 9/00**

[52] U.S. Cl. **713/200; 380/51; 358/448**

[58] Field of Search 395/186, 133, 395/508; 380/51; 382/173; 358/426, 468, 444, 401, 300; 713/200, 201, 202

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35 Claims, 7 Drawing Sheets

