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(54) **METHOD FOR HIDING BINARY DATA IN A DIGITAL IMAGE**

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(57) **ABSTRACT**

A method for hiding primary digital information in an initial digital document begins by first breaking down the initial digital document by determining a reference digital document as a function of the initial digital document by a fractal transformation method. Secondary digital information is created as a function of the primary digital information to be hidden and the reference digital document. A modified image is computed by the sum of the reference digital document and the secondary digital information such that the modified digital document approximates the initial document but integrating substantially indiscernible the primary digital information to be hidden. The method enables retrieval of digital information hidden in a multimedia document in a dual manner. The method is based on the concept of auto-similarity and ensures that the input information is not visible but finally be retrieved without providing knowledge of the original documents.

51 Claims, 3 Drawing Sheets



