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(54) Title: METHOD AND APPARATUS FOR DATA COMPRESSION ✓

(57) Abstract

A method and apparatus for compression of data. The invention provides for the application of a plurality of compression schemes to the data such that improved compression ratios are achieved. A first embodiment provides for compression of each pixel by one of a plurality of different entropy-based compression schemes based upon a probability cost analysis. A second embodiment provides for compression of each pixel based on a hybrid context formed using a plurality of compression schemes for improved probability determination, and thus improved entropy encoding. In embodiments of the invention, a context compression scheme similar to JBIG is applied, as well as an inverse scheme. The context scheme forms a statistical context from a concatenated sequence of previous pixel values. The inverse scheme provides a gray value estimation method based upon previous pixel values and respective threshold values. Statistics are maintained with respect to the actual current pixel value and the difference between an estimated gray value and the current pixel threshold value.

