ABSTRACT

To provide a data hiding method of hiding media data in message data and a data extraction method of extracting the hidden data wherein message data is dispersively hidden in media data such as an image or sound to prevent a third person from modifying the message data easily.

A data hiding method in which media data is expressed as a media array while message data is expressed as a message array so that the array elements of the message array can be dispersively hidden in the message array based on a state values specifying a particular array element of the media array, comprises the steps of:

(a) determining the j-th ($j \geq 0$) state value S_j;

(b) determining (j + 1)-th state value S_{j+1} based on the j-th state value, the array element of the media array indicated by the j-th state value, and the array element of the message array; and

(c) hiding data with respect to the array element of the media array indicated by the (j + 1)-th state value S_{j+1}.