matches includes calculating a main difference pair for the target, and characterizing the set of exact matches by the main difference pair. The target value may be fully differentiated by determining the ordinal position of the target within the set of exact matches.

The target value may be represented using the following values: the SMB of the target, the SMOB of the target, the SMB of each of the one or more armatures, the SMOB of each of the one or more armatures, the main difference pair, and the ordinal position of the target within the set of exact matches.

The details of one or more implementations are set forth in the accompanying drawings and the description below. Other features and advantages will be apparent from the description and drawings, and from the claims.

DESCRIPTION OF DRAWINGS

FIG. 1A is a block diagram of a relational differentiation encoding system.

FIG. 1B is a diagram of a computer system using relational differentiation encoding to encode data for transmission and/or storage.

FIG. 2 is flow chart of the encoding process in a relational differentiation encoding system.

FIG. 3 is a diagram illustrating the bit characteristics of active candidates in a relational differentiation encoding system.

FIG. 4 is a diagram illustrating the calculation of the armatures in a relational differentiation encoding system.

FIG. 5 is a flow chart of the decoding process in a relational differentiation encoding system.

DETAILED DESCRIPTION

Relational differentiation encoding is a technique that may be used to encode a bit string in a compact data representation. Referring to FIG. 1A, a relational differentiation encoding module 100 receives a bit string 102 as input. The bit string 102 will typically be a binary bit string representing data or information to be transmitted across a communications medium or stored in a data storage medium. For