16. The computer-implemented method of claim 15 wherein constructing a set of exact matches includes:

calculating a main difference pair for the target; and

characterizing the set of exact matches by the main difference pair.

17. The computer-implemented method of claim 16 wherein differentiating the target value further includes determining the ordinal position of the target within the set of exact matches.

18. The computer-implemented method of claim 17 wherein differentiation descriptor includes:

a senior most bit of the target;

a number of on bits of the target;

a senior most bit of each of the armatures;

a number of on bits of each of the armatures;

the main difference pair; and

the ordinal position of the target within the set of exact matches.

19. A computer program for performing relational differentiation encoding comprising:

a receiving code segment that receives data to be encoded using relational differentiation encoding, and creates a target value from the received data;

an encoding code segment operable to perform relational differential encoding on the received data, the encoding code segment including:

a series construction code segment operable to construct a set of active candidates including the target value;

a differentiation code segment operable to differentiate the target value from other values within the set of active candidates.

20. The computer program of claim 19 wherein the receiving code segment creates a target value from the received data by representing the received data as a single binary number.