

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

36. A data encoding system comprising:

a data receiving module for receiving a target value; and

a data encoding module,

5 wherein the data encoding module is operable to encode data using a senior most bit of the target value and a number of on bits of the target value.

37. The data encoding system of claim 36 wherein the data encoding module is a hardware-implemented module.

10 38. The data encoding system of claim 36 wherein the data encoding module is a software-implemented module.

39. The data encoding system of claim 36 wherein the data encoding module includes:

a hardware-implemented module; and

15 a software-implemented module, the software-implemented module using the hardware-implemented module to increase the performance of the data encoding system.