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[54] **METHOD FOR PACKING A PLURALITY OF PACKED DATA ELEMENTS IN RESPONSE TO A PACK INSTRUCTION**

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Related U.S. Application Data

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[51] **Int. Cl.**[6] **G06F 9/30**

[52] **U.S. Cl.** **395/800.22**; 395/562; 395/564

[58] **Field of Search** 395/562, 564, 395/800.22

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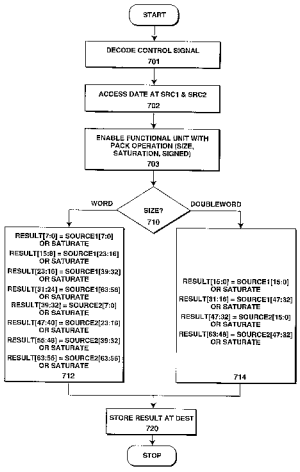
[57] **ABSTRACT**

A method for manipulating packed data in a computer system. The method includes the steps of decoding a Single Instruction Multiple Data (SIMD) pack instruction. The instruction identifies a first and second packed data respectively including a first plurality of data elements and a second plurality of data elements. Each data element consists of a separate multiple bit data field, wherein each data element in the first plurality of data elements corresponds to a data element in the second plurality of data elements in a respective position. The method further includes the step of simultaneously copying, in response to the pack instruction, a part of each data element in the first plurality of data elements and a part of each corresponding data element in the second plurality of data elements into a third packed data as a plurality of separate result data elements.

16 Claims, 17 Drawing Sheets