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(54) **METHODS AND APPARATUS FOR LOCAL MEMORY COMPACTION**

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(52) **U.S. Cl.**
USPC **717/151**

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USPC 717/151
See application file for complete search history.

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(57) **ABSTRACT**

Methods, apparatus and computer software product for local memory compaction are provided. In an exemplary embodiment, a processor in connection with a memory compaction module identifies inefficiencies in array references contained within in received source code, allocates a local array and maps the data from the inefficient array reference to the local array in a manner which improves the memory size requirements for storing and accessing the data. In another embodiment, a computer software product implementing a local memory compaction module is provided. In a further embodiment a computing apparatus is provided. The computing apparatus is configured to improve the efficiency of data storage in array references. This Abstract is provided for the sole purpose of complying with the Abstract requirement rules. This Abstract is submitted with the explicit understanding that it will not be used to interpret or to limit the scope or the meaning of the claims.

39 Claims, 9 Drawing Sheets
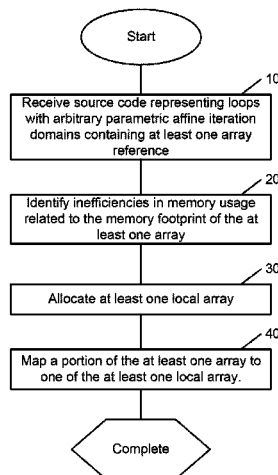
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