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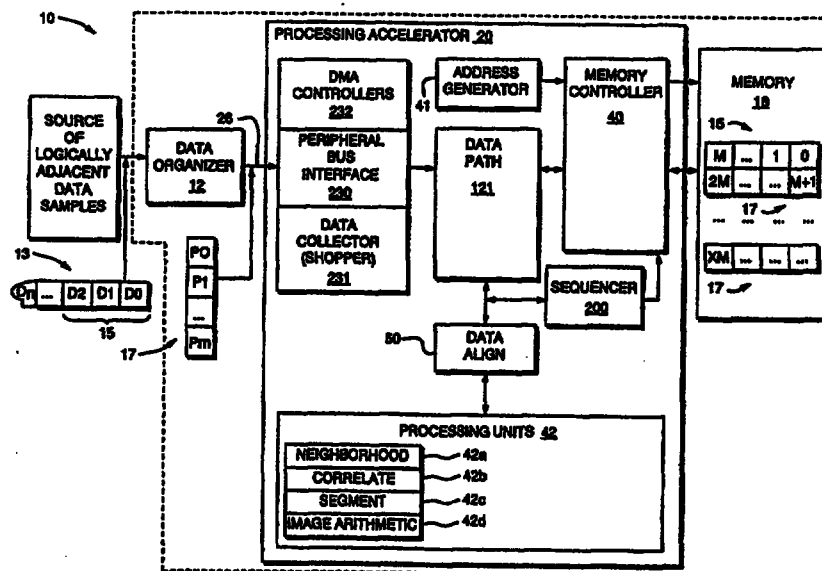
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(54) Title: DATA PROCESSING SYSTEM FOR LOGICALLY ADJACENT DATA SAMPLES SUCH AS IMAGE DATA IN A MACHINE VISION SYSTEM



(57) Abstract

A data processing system (10) including a data processor (20) processes at least one processor word (17) each clock cycle. Each processor word (17) includes multiple complete data samples (13) which are received individually as part of a sequential stream of logically adjacent or related data samples. A predetermined number of the data samples are stored together, as a processor word (17), in dedicated memory (18). The system also includes a data aligner (50) which allows the data processor to process at least one processor word (17) comprised of at least one data sample from other two processor words. The aligner (50) controls data sample alignment such as pixel alignment in a vision system to facilitate image data processing.