



ABSTRACT OF THE DISCLOSURE

A method for prefetching structured data, and more particularly a mechanism for observing address references made by a processor, and learning from those references the patterns of accesses made to structured data. Structured data means aggregates of related data such as arrays, records, and data containing links and pointers. When subsequent accesses are made to data structured in the same way, the mechanism generates in advance the sequence of addresses that will be needed for the new accesses. This sequence is utilized by the memory to obtain the data somewhat earlier than the instructions would normally request it, and thereby eliminate idle time due to memory latency while awaiting the arrival of the data.

