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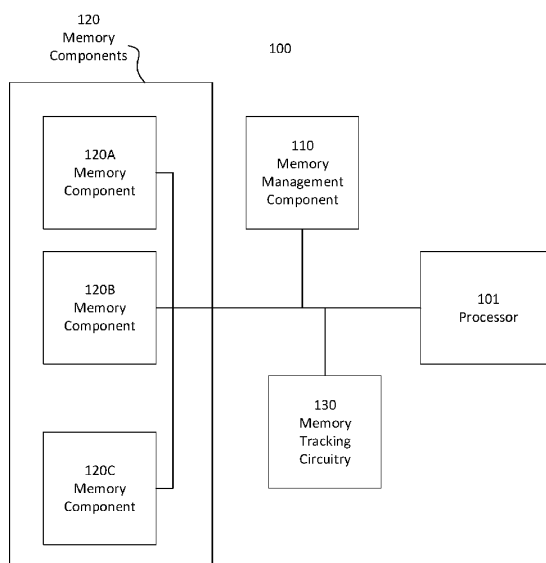


FIG. 1

(57) Abstract: An apparatus for executing a software program, comprising: a processing unit; a plurality of memory components, each connected to the processing unit and mapped to at least one range of memory addresses of a plurality of memory address ranges of the processing unit; and at least one memory tracking circuitry connected to the processing unit and to the at least one memory component. The memory tracking circuitry is configured for: in each iteration of a plurality of iterations, updating at least one statistical counter of a plurality of statistical counters in response to receiving a memory access command from the processing unit; and providing one or more of the plurality of statistical counters to a memory management component for the purpose of mapping application memory of the software program to the at least one memory component.

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