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(54) Title: EXECUTING GRAPH-BASED PROGRAM SPECIFICATIONS

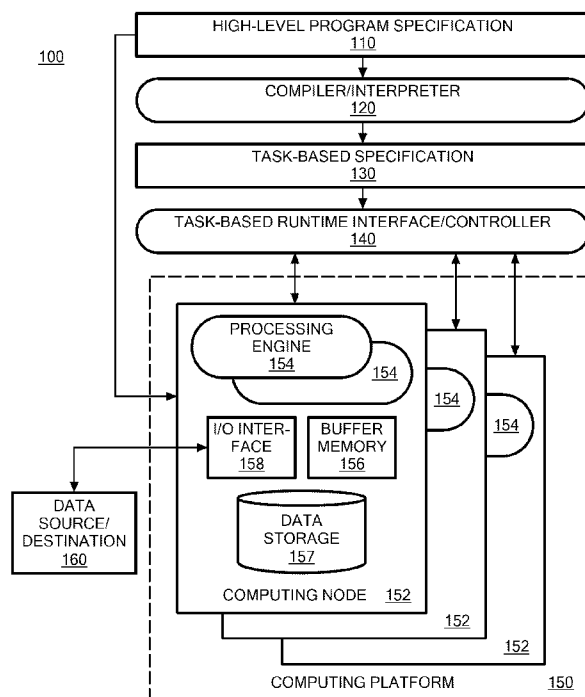


FIG. 1

(57) Abstract: A graph-based program specification (110) includes components corresponding to tasks and directed links between ports of the components, including: a first type of link configuration defined by respective output and input ports of linked components, and a second type of link configuration defined by respective output and input ports of linked components. A compiler (120) recognizes different types of link configurations and provides in a target program specification occurrences of a target primitive for executing a function for each occurrence of a data element flowing over a link of the second type. A computing node (152) initiates execution of the target program specification, and determines at runtime, for components associated with the occurrences of the target primitive, an order in which instances of tasks corresponding to the components are to be invoked, and/or a computing node on which instances of tasks corresponding to the components are to be executed.



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