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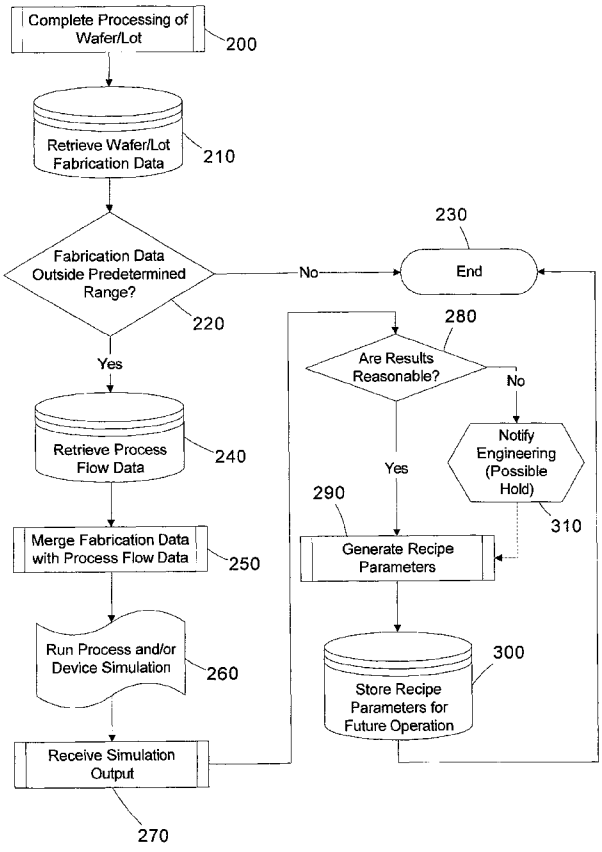
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(54) Title: METHOD AND APPARATUS FOR PROVIDING FIRST-PRINCIPLES FEED-FORWARD MANUFACTURING CONTROL



(57) Abstract: A method includes processing a workpiece in a manufacturing system (10) including a plurality of tools (30). Workpiece fabrication data related to the processing is retrieved. Future processing in the manufacturing system (10) is simulated based on the workpiece fabrication data. At least one process parameter for the future processing is predicted based on the simulating. The workpiece is processed in at least one of the tools (30) based on the predicted process parameter. A system (10) includes a plurality of tools (30) configured to process a workpiece and a simulation unit (110). The simulation unit (110) is configured to retrieve workpiece fabrication data related to the processing, simulate future processing for the workpiece based on the workpiece fabrication data, and predict at least one process parameter for the future processing based on the simulating, wherein at least one of the tools (30) is configured to process the workpiece based on the predicted process parameter.

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