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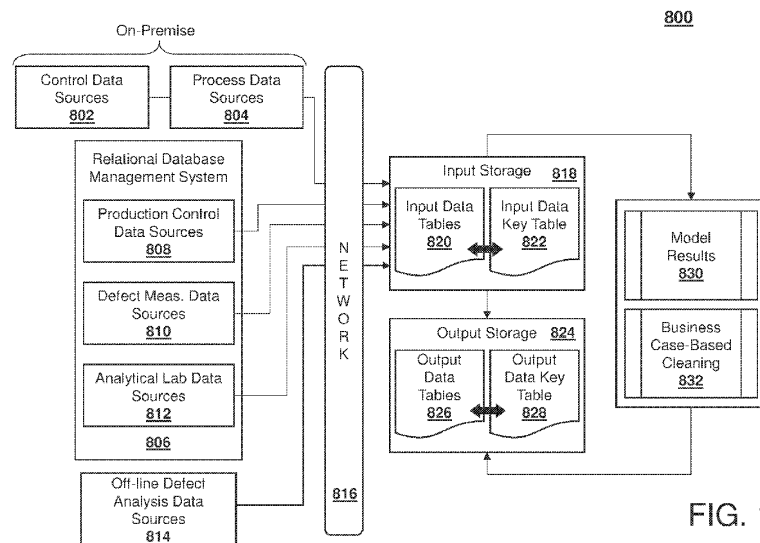


FIG. 1

(57) Abstract: Provided are a system, method, and computer program product for optimizing a manufacturing process. The method includes receiving manufacturing data associated with a manufacturing process for manufacturing a product. The manufacturing data may include data from a plurality of data sources associated with a plurality of stages of the manufacturing process, and the manufacturing data may include values for a plurality of parameters including at least one process parameter value and at least one quality parameter value. The method includes generating a time-sequenced data structure including the manufacturing data and transforming the time-sequenced data structure to a positionally-dimensioned data structure based on timing data associated with the plurality of stages. The method includes determining a new value for the at least one process parameter value based on the positionally-dimensioned data structure and at least one algorithm and optimizing the manufacturing process based on the new value.

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