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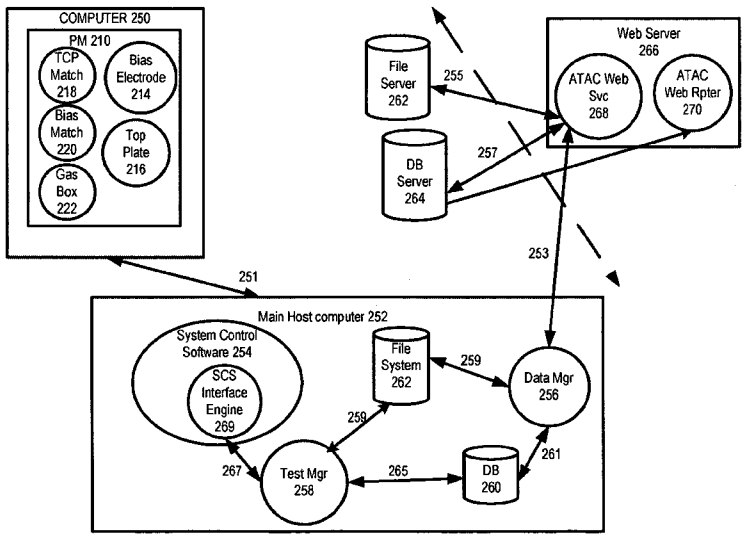
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(57) Abstract: A method for testing a component configured to be installed in a plasma processing system. The method includes providing an ATAC (Automated Test and Characterization) fixture, which includes a system control software package (SCS) that is representative of production system control software, a data manager module configured to obtain specification data from a database over a computer network, A test manager module configured to execute a set of tests designed to test the component, a SCS interface engine configured to provide the set of tests to the SCS, and a data analysis module configured to provide computer-implemented data analysis tool for analyzing test data obtained from the testing the component. The method also includes coupling the ATAC fixture to the component to enable the SCS in the ATAC fixture to test the component utilizing the set of tests and at least a portion of the specification data.

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