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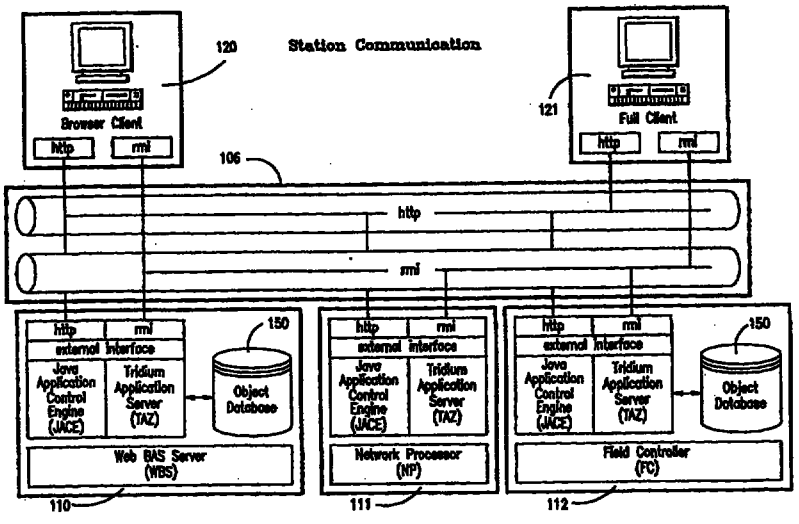
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(54) Title: SYSTEM AND METHODS FOR OBJECT-ORIENTED CONTROL OF DIVERSE ELECTROMECHANICAL SYSTEMS USING A COMPUTER NETWORK



(57) Abstract

A control system methodology uses object-oriented software to integrate multiple control systems into a common object model. Object-oriented techniques are used to construct distributed Java-based applications in a multi-vendor open system environment for use in controlling and monitoring systems of varying size and configuration. The system provides both a browser client (101) (running on a Java-enabled browser) and a server client (121). The present invention has multiple stations: a Web BAS Server (110), a Network Processor (NP) (111), and a Field Controller (FC) (112). The NP and FC are preferably Java Virtual Machines implemented in a plug-in Java Modular Environment. Information is brought into a common object model and made available throughout the system. A custom programming language based on Java is provided for object creation, with access to objects controlled through a multi-level security protocol. Data flow is governed by a real-time information synchronization manager.