BROOKS AUTOMATION

AUTOMATION SYSTEMS GROUP

Fusion™ Controls

TOOL AUTOMATION

Fusion™ Controls, Brooks Automation's innovative automation control platform, provides integrated hardware and software components for controlling the company's high-performance product families.

Features

- Single, unified automation control solution
- Industry-leading motion control technology
- Intuitive graphical interfaces for configuration and customization
- Flexible and extensible motion network
- Visualization and emulation for offline development
- AutoTeach™ tool for one-button re-teach

Benefits

- Faster time to market
- Ease of set-up and maintenance
- Flexible configuration for meeting application and fab-specific requirements
- Superior tool performance and efficiency
- Coordinated, optimized motion and I/O behavior for high throughput
- Offline development and optimization
- Maximum tool uptime

The Fusion Controls Advantage

As the semiconductor market matures and fabrication processes grow more complex, assembling and integrating solutions from multiple vendors is no longer a viable alternative for manufacturers looking to reduce costs and increase tool reliability. In order to meet escalating performance demands and control costs, users are seeking complete, integrated solutions that solve all their automation needs, while providing open, intuitive interfaces for fast, easy customization and optimization. That's why Brooks Automation's Fusion Controls platform is the automation control solution for today's leading OEM tool manufacturers.

Brooks Automation's innovative Fusion Controls platform is the industry's most flexible and complete automation control solution. Fully customizable and remarkably easy to use, Fusion Controls delivers maximum performance and uptime, while accelerating time to market and tool profitability.

Product Description

Fusion Controls is a complete automation control platform for Brooks Automation's high-performance product lines. It combines Brooks' extensive domain expertise and best-in-class technology with commercial off-the-shelf components to provide the industry's most scalable, flexible, and customizable automation control solution. Featuring easy-to-use graphical interfaces, an extensible motion network, offline visualization and emulation, pre-packaged templates for repeatable tool configuration, and robust data collection tools, Fusion Controls delivers optimal efficiency at all phases of the tool lifecycle.

Fusion Controls comprises the following hardware and software components:

Hardware

Central to the Fusion Controls platform is the Fusion Compact Controller. The Fusion Compact Controller utilizes a high-speed FireWire® network that enables real-time synchronization and coordination of all axes of motion. This extensible motion network provides reusable building blocks

Service Interface screens

that enable flexible control of many motion and I/O applications, including robots, aligners, and custom axes. Fusion Controls also supports Ethernet and RS232 for host communications and integration of other devices.

For more information, see the Fusion Compact Controller datasheet.

Software

Fusion Controls provides powerful software tools—featuring easy-to-use graphical interfaces—for initialization, set-up, configuration, and operation of Brooks Automation's tool automation products.

The SEMI E95-compatible Service Interface enables users to set-up, operate, and troubleshoot tool equipment with ease, and to configure components, such as load ports and aligners, with the simple click of a button. With the powerful AutoTeach tool, users can quickly teach new tools and sequences for accelerated tool set-up, or automate re-teaching of stations after maintenance for reduced downtime. Offline visualization and emulation capabilities enable users to validate equipment safely and to optimize tool configuration without impacting production. Intuitive diagnostics and powerful data collection tools facilitate troubleshooting for maximizing tool uptime. Portable configuration files—captured as part of the Fusion Controls Workspace—enable fast, efficient tool replication.

The Configuration Interface includes the object–oriented, drag-and-drop Sequence Editor, which allows users to customize robot behavior without writing a single line of code. The Sequence Editor supports customization of motion and I/O sequences to maximize throughput and simplify teaching. Configuration tools enable users to easily define advanced properties of Workspace elements, such as robots, stations, and sequences, and to configure capabilities of the Service Interface to reflect different access privileges. Plus, offline emulation and visualization capabilities allow users to set up and optimize the system long before the hardware is available.

For more information, see the Fusion Controls Software Manual.

*Recommended System Requirements for Software Tools**

CPU	1.6 GHz Pentium M or 2.8 GHz P4 Celeron
Memory	512 MB RAM
Storage	200MB
Operating System	Windows XP Professional SP2, with Microsoft .Net 2.0 & DirectX 9.0
Communications	1 Ethernet port
Video	DirectX 9 Support

* For installing Fusion Controls interfaces and offline emulation server

For more information, please contact your local Brooks Automation sales representative or visit www.brooks.com.

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