Modular Open Platform System

Scientific Motion's Modular Open Platform System (MOPS) allows for maximum flexibility and expansion. The mechanical, software, and control design enable various process module configurations and integration of other manufacturers' equipment. Some of the process modules that can be integrated are spin coaters, bake stations, buffers, and metrology systems. The system uses distributed controls whereby each process module has its own embedded controller. A touch screen PC, that has an intuitive user interface, controls the overall system.

Mechanical

2x2 Cluster Frame

- Allows up to 2 cassette stations or 2 FOUP load ports, or combination of both using a SEMI standard 6 bolt hookup

- Up to 2 process modules can be included

- Each process module is contained in a 20"x20" footprint

- Utilizes a 300mm, 3 axis robot with path planning for access to orthogonal stations

- Pre-aligner or centering ring can be used for centering wafer

- Symmetrical design allows for maximum flexibility

Controls

- Distributed control system

- Overall system controlled by Advantech 12" touch screen PC computer

- Individual modules controlled by 3200 Rabbit embedded controller

- Communications between process modules and PC computer via Ethernet

- Communications between Animatic SmartMotors and Rabbit controller via RS232

- The master software can communicate with up to 256 other process modules (controllers)
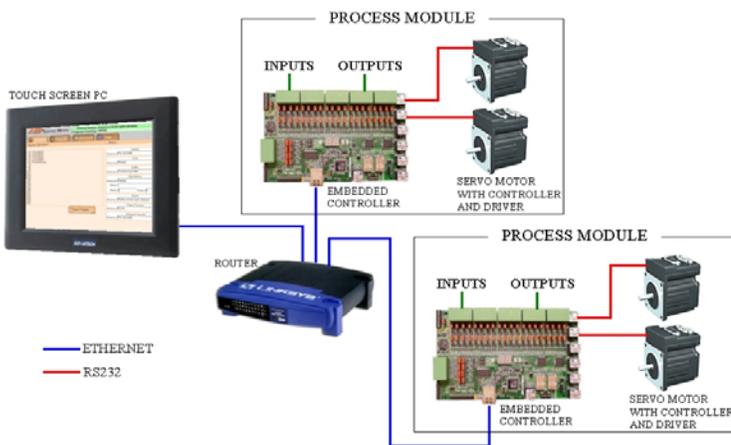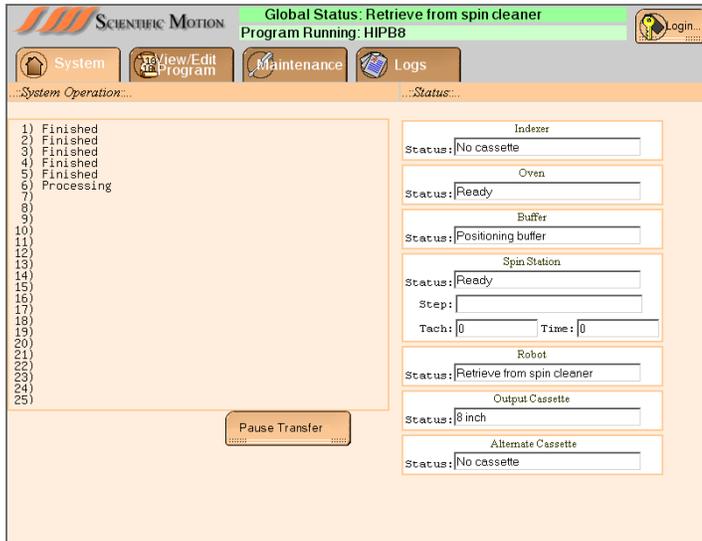
Software

Scientific Motion's automation software package controls a range of wafer processing equipment. The software has an intuitive user interface that allows engineers to easily create and modify recipes through a click and select method. Operators start programs by selecting the name of the recipe from an on-screen push-button style list. The state of every input and output is displayed in the maintenance screen. Outputs can be "toggled" between states to verify the machines operation. Multilevel password protection prevents unauthorized use.

- Web-enabled HTML platform running under Lynux operating system (Visual Basic is also available)

- Intuitive user interface with SYSTEM, PROGRAM, MAINTENANCE, and LOG screens

- The master software can communicate with up to 256 other process modules (controllers)

- Open software system allows for SMEMA, SECS/GEM, Modbus, and ethernet communication

- Remote programming and diagnostics via the internet

- Rabbit 3200 embedded controllers uses C programming language