



A²ECF SEMI

Robotic Control, Scheduling and Connectivity for Semiconductor Tools



An operating system for your equipment automation with SEMI standards compliance.

A²ECF SEMI (Agileo Automation Equipment Controller Framework) capitalizes on more than 2 decades of experience in wafer handling, machine control, automation, and process tool management.



A reliable and field-proven solution used by more than 30 different kinds of tools worldwide.

With A²ECF SEMI

- Be in the right "time to market" and Reduce software investments by using existing software solution with documented architecture
- Focus on your core business:
 With built-in SEMI standards compliance and major robotics platform supported, A²ECF SEMI takes care of your equipment automation
- Increase the maintainability and the testability of your equipment software: Standardization of hardware and software simulation for off-site problem analysis and off-line host integration
- Partner with a team able to support you from RFQ answering to worldwide equipment commissioning
- Get prepared to your customers' future needs: 6", 8", 300mm and 450mm compliance based on the same architecture, open to new hardware and following industry standards with planned updates.



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Features

Object oriented, entirely written in C#, A²ECF SEMI is a multilayered application. It has been designed to be easily adapted to the end users' needs, through the implementation of code and component customization.



Manage off the shelf or specific devices

- Major EFEM platforms are supported
- Solution is open to new hardware
- Generic device models to facilitate new hardware integration
- Equipment definition as a tree structure, editable and testable right inside Microsoft Visual Studio ®
- Automatic generation of Device user interface from device programming interface
- OPC support (member of OPC Foundation)

Rapid and professional user interface

- SEMI E-95 compliant user interface
- User management with access rights
- Multilanguage support
- Customizable styles to follow your corporate graphic standards
- User interface components for industrial and semiconductor domain (FOUP, Open cassette, SCARA robot,...)

Create your business logic based on models

- Customizable schedulers with graphical representation based on State Machines
- State Machines directly editable in Microsoft Visual Studio.NET®
- Alarm management and historization
- An equipment model to manage machine variability with cascaded systems and subsystems
- An instruction processor allowing users to customize sequences without further development

Based on widely spread technologies

- 32 bits and 64 bits Windows® OS support
- Solution fully integrated in Microsoft Visual Studio.NET® environment, no need for external tools or compilers
- Use of the C# language: simple, fast and efficient. No side-effects, very simplified memory management compared to languages such as C or C++
- Many skilled developers available

Ready for host integration

- SECS/GEM option with Agil'GEM : SEMI E4 (SECS-I), E37.1 (HSMS-SS), SEMI E5 (SECS-II), SEMI E30 (GEM)
- Advanced automation and connectivity with Agil'GEM300 : SEMI E39 (Object Services), SEMI E87 (Carrier Management), SEMI E40 (Process Job), SEMI E94 (Control Job), SEMI E90 (Substrate Tracking), SEMI E116 (Equipment Performance Tracking), SEMI E157 (Module Process Tracking), SEMI E148 (Time Synchronization)

Documented product

- SDK with component documentation
- Integration samples provided for components
- Agil'Controller application template provided with sources to bootstrap your SW team

Designed for maintenance

- Easy reporting with one button to send tool event log and screenshot from field to after sales
- Standardization of hardware simulation to enable software testability and improve maintainability
- Alarm dashboard can be completed with the Equipment Performance Analyzer: Reliability, Availability, Maintainability (SEMI E-10)



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