



SECS-II/GEM Equipment Kit

PRODUCT DATA SHEET

Overview

The Wonderware® SECS-II/GEM Equipment Kit is available for Microsoft® Windows® NT™ Workstation v4.0. Windows applications, capable of hosting ActiveX components, are able to access equipment devices that are SECS-II/GEM compliant via ActiveX™ technology. ActiveX containers that run under Windows NT are able to behave as SECS-II/GEM compliant equipment devices. The SECS-II/GEM Equipment Kit is an ActiveX control that is primarily intended for use with Wonderware's FactorySuite™ InTouch® or Visual Basic. Both may act as an ActiveX container to supply data for the rest of the FactorySuite. The SECS-II/GEM Equipment Kit communicates to a SECS-II compliant host via SECS-I (Serial) or HSMS (Ethernet). The SECS-II/GEM Equipment Kit will **not** allow DDE, fastDDE, NetDDE, and SuiteLink protocol data transfer.

The Equipment Kit is designed to be a drop-in addition to InTouch. It is targeted specifically as an easy way to add GEM-compliant SECS-II capability to OEM Tools that use InTouch as an operator faceplate. Existing InTouch designs need minimal modification to accommodate the Equipment Kit, so the decision to ship a specific Tool with or without SECS-II/GEM capability simply determines whether or not to install the Equipment Kit on that Tool.

The Equipment Kit may act as many OEM Tools (Equipment) on the same node simultaneously. Each OEM Tool must be preconfigured, using the SECS-II/GEM Equipment Creator. For each Tool, the user customizes the communication mode (SECS-I serial or HSMS TCP/IP), and defines all the Data Items supported by the Tool.

The Data Item Dictionary as well as the definitions and structures of the SECS-II messages used by the Equipment Kit are contained in simple ASCII files, not hard-coded. In addition, for each configured Tool, the user may

extend or modify the Data Item Dictionary and/or SECS-II message definitions by supplying Tool-specific ASCII files. As part of the configuration process, Data Items in each OEM Tool's dictionary are linked to InTouch tagnames. The Equipment Kit is capable of dealing with nearly all GEM-required SECS-II messages without intervention from script in the InTouch ActiveX Container.

Logging is done through the Wonderware Logger. Logging can be filtered (enabled or disabled) at three levels: Error messages, Diagnostic messages, and Traffic messages. Typically, Error logging would always be enabled for a working connection; this shows unexpected communication failures. Diagnostic logging shows much more detail, and is useful for diagnosing connection problems, such as wrong Device ID, incompatible Active/Passive modes, etc. Traffic logging shows every SECS-II message sent and received.

Key Features

- Supports specific messages and formats for transfer of classes of manufacturing information.
- An ActiveX control that can be used by ActiveX containers, particularly with Wonderware's InTouch (v7.0 or higher).
- Supports 1995 SEMI Standard E5.
- Supports 1996 HSMS-SS SEMI Standard E37.
- Supports 1997 SECS-I SEMI Standard E4.

SECS-II/GEM Equipment Kit is designed to support all *Fundamental GEM Requirements* and *Additional GEM Capabilities* performed by semiconductor manufacturing equipment. The following lists the current 'status quo' of our implementation and compliance of those *Fundamental GEM Requirements* and the *Additional GEM Capabilities* in this product.

FUNDAMENTAL GEM REQUIREMENTS	IMPLEMENTED	GEM-COMPLIANT
State Models	✓	
Equipment Processing States	✓	
Host-Initiated S1,F13/F14 Scenario	✓	✓
Event Notification	✓	
On-Line Identification	✓	
Error Messages	✓	
Documentation	✓	
Control (Operator-Initiated)	✓	
ADDITIONAL CAPABILITIES	IMPLEMENTED	GEM-COMPLIANT
Establish Communications	✓	✓
Dynamic Event Report Configuration	✓	✓
Variable Data Collection	✓	✓
Trace Data Collection	✓	✓
Status Data Collection	✓	✓
Alarm Management	✓	✓
Remote Control - S2, F41 only	✓	✓
Equipment Constants	✓	✓
Process Program Management - unformatted only	✓	✓
Material Movement		
Clock	✓	✓
Limits Monitoring		
Spooling		
Control (Host-Initiated)	✓	✓

PC Requirements

Software

Microsoft Windows NT Workstation, version 4.0, and Wonderware InTouch v7.0 or higher.

Hardware

IBM® compatible PC with a Pentium 166MHz processor or better, requires at least 32 MB of RAM. At least 100 MB of free disk space, pointing device, VGA color display capability, SVGA with 256 colors and 800 x 600-pixel resolution recommended. Comm Ports 1-32. May require more memory to run other Windows programs simultaneously. Requires CD-ROM player.

Communication Interface:

Serial port or standard 3COM Ethernet NIC (Network Interface Card)

Server Specifications

Supported Devices

SECS-II compliant equipment.

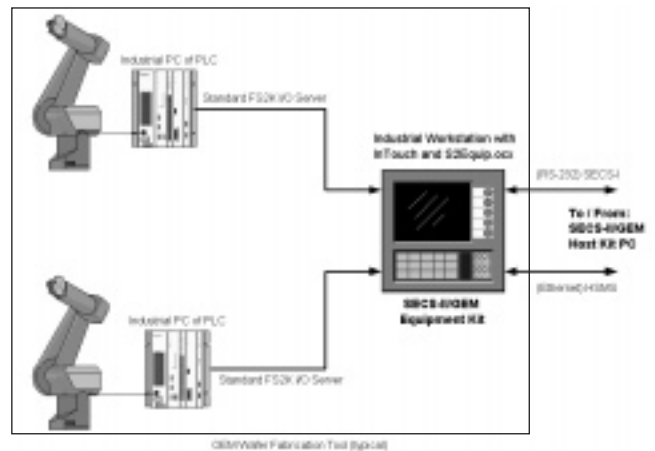
Supported Protocols

Protocol
1997 GEM E30-0997
1997 SECS-I SEMI Standard E4
1996 HSMS-SS SEMI Standard E37
Add Remaining Additional GEM Capabilities

Data Types

1995 SEMI Standard E5.

Network Topologies



Part Numbers

04-0041 (Development and qty (1) Runtime license)
04-0042 (Runtime license only)

Ordering Information

The Wonderware SECS-II/GEM Equipment Kit for Windows NT (Intel) can be downloaded from the Wonderware Corporate Internet web-site (<http://www.wonderware.com>) and will be included with the next I/O Server CD release. The SECS-II/GEM Equipment Kit is not a standard I/O Server, and therefore does not fall under the standard I/O Servers pricing model. Contact your local Wonderware distributor for specific pricing information.



© 1999 Wonderware Corporation. All rights reserved. Wonderware is a registered trademark of Wonderware Corporation. All other trademarks are the property of their respective owners.

Wonderware Corporation • 100 Technology Dr. • Irvine, CA • 92618 • Tel: (949) 727-3200 • Fax: (949) 727-3270
www.wonderware.com