



SECS-II/GEM Host Kit PRODUCT DATA SHEET

Overview

The Wonderware® SECS-II/GEM Host Kit is an ActiveX Control designed to provide Host-side SECS-II communication capability to a variety of ActiveX-enabled products. In particular, the Host Kit works with Wonderware InTouch visualization product, or Microsoft Visual Basic acting as the ActiveX container. NOTE: The Wonderware Host and Equipment Kits may be used on the same node to create a 'cell controller'.

A rich set of ActiveX properties, methods, and events, allows the ActiveX container to control the behavior of the Host Kit when desired. However, the Host Kit is capable of independent action in many cases. GEM scenarios, or custom user scenarios, may be crafted by the user using InTouch script or Visual Basic code.

The Data Item Dictionary as well as the definitions and structures of the SECS-II messages used by the Host 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.

The Host Kit may communicate with many Tools (Equipment) simultaneously. Each Tool must be modeled, or preconfigured, using the SECS-II/GEM Host 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.

In addition, certain lists may be preconfigured. For instance, consider the requirement to read a list of Status Variables using S1F3. A list of Status Variables may be preconfigured with the Host Creator, and given a name. The runtime script in the ActiveX container specifies this list name when sending an S1F3 message. The Host Kit ActiveX Control is then capable of sending the appropriate list of SVIDs in the S1F3 message, and receiving the returned list of SVs in the S1F4 reply message. The ActiveX container script may read the returned SV values using ActiveX methods, or, in the case of InTouch, the SVs may be linked to InTouch tag names, and updated automatically by the Host Kit ActiveX Control.

An ActiveX event is fired to the ActiveX container when SECS-II messages are sent or received. ActiveX properties may be read from within the ActiveX event handler to determine the Stream and Function of the message, as well as the success or failure of the transmission or reception of that message. Statistics are kept on all error conditions, including timeouts (T1 through T8) and Stream 9 exceptions.

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 InTouch (v7.0 or higher) and Visual Basic (v5.0 or higher).
- Supports 1993 HSMS-93.
- Supports 1995 SEMI Standard E5.
- Supports 1996 HSMS-SS SEMI Standard E37.
- Supports 1997 SECS-I SEMI Standard E4.

SECS-II/GEM Host Kit is designed to support specific messages and message formats for transfer of classes of manufacturing information. It is an ActiveX control and can be used by ActiveX containers, particularly InTouch and Visual Basic. The SECS-II/GEM Host Kit will not allow DDE, FastDDE, NetDDE, and SuiteLink protocol data transfer. DCOM (ie: Distributed COM) communications will not be supported either.

PC Requirements

Software:

Microsoft Windows NT Workstation, version 4.0 and Wonderware InTouch v7.0 or MS-Visual Basic v5.0

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.

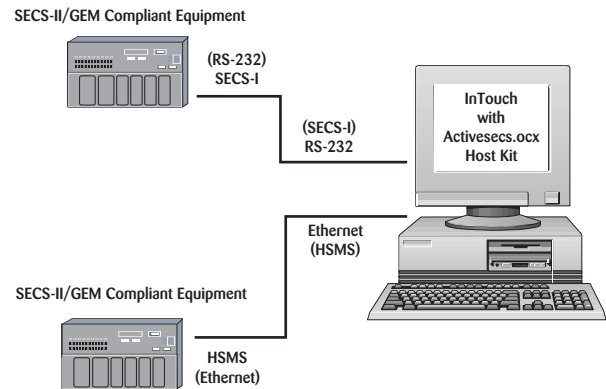
Supported Protocols

Protocol
1997 GEM E30-0997
1997 SECS-I SEMI Standard E4
1996 HSMS-SS SEMI Standard E37
1993 HSMS-93 (Working Draft)

Data Types

1995 SEMI Standard E5. Note: Stream 14 of the 1995 SEMI Standards will not be supported.

Network Topologies



Part Numbers

04-4441 (Development & qty(1) Runtime license)

04-4442 (Runtime only license)

Ordering Information

The Wonderware SECS-II/GEM Equipment Kit for Windows NT (Intel) can be downloaded from the Wonderware Corporate Internet website (<http://www.wonderware.com>) and will be included on 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.



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