



Full SECS Logging and Traceability

## **HOST EMULATOR**

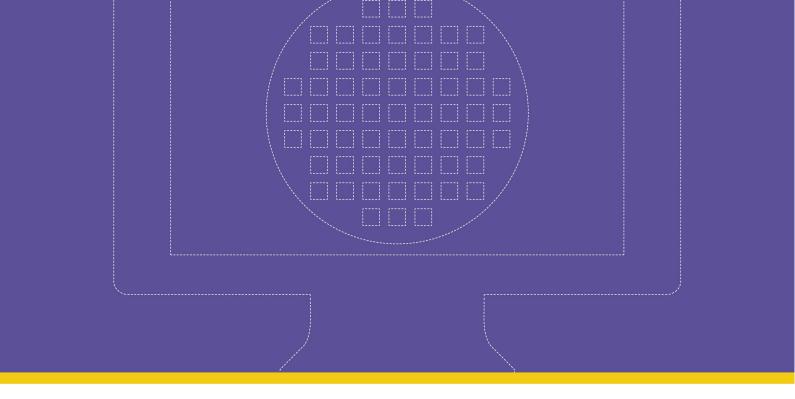
SECS/GEM Host Software (SEMI Standards E4, E5, E30 & E37.1)

X-ACT is a software to emulate the host computer for the purpose of testing communication during the development of equipment SECS/GEM functionalities that are compliant with SEMI E4, E37.1, E5 and/or E30 standards.

X-ACT can connect with any GEM compliant equipment by using the generic "GEM Machine" module that comes provided. SECS logs and traces are available at both controller-level and on the equipment-connection level as documentation of the test results.

X-ACT comes with a user-friendly GUI to monitor SECS/GEM messages as well as simulate transactions pertaining to remote commands, process programs and terminal services. A dedicated tab for "SECS messages" allow Stream Functions to be defined and grouped according to scenarios for sending to equipment in characterisation tests.





# **Specifications**

### Installation Requirements

- Windows XP Professional (32 & 64 bit) with .NET 3.5; 512MB RAM (minimum)
- Windows 7 Professional (32 & 64 bit) with .NET 3.5; 2GB RAM (minimum)
- Windows 8 &10 Professional (32 & 64 bit) with .NET 3.5; 4GB RAM (minimum)

### SEMI Standards Compliance

X-ACT adheres strictly to the following standards:

- SEMI E4: SEMI Equipment Communications Standards 1 Message Transfer (SECS-I)
- SEMI E37.1: High-speed SECS Message Service Single Selected-Session Mode (HSMS-SS)
- SEMI E5: SEMI Equipment Communications Standards 2 Message Content (SECS-II)
- SEMI E30: Generic Model for Communications and Control of Manufacturing Equipment (GEM)

#### XML Standards Compliance

 X-ACT describes SECS message body using a general notation called SECS eXtensible Markup Language (SXML) which is developed by XYsoft. SXML is similar to the SML notation used in the SECS Standards documents but is based on the XML syntax which is widely used.

# Data Type Support

The following data types are supported by X-ACT: (SXML representation in parenthesis)

- Binary (B); Boolean (BOOL); ASCII (A)
- 1-byte signed integer (I1); 2-byte signed integer (I2); 4-byte signed integer (I4); 8-byte signed integer (I8)
- 1-byte unsigned integer (U1); 2-byte unsigned integer (U2); 4-byte unsigned integer (U4);
  8-byte unsigned integer (U8)
- 4-byte floating point (F4); 8-byte floating point (F8)

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