

Automated test application that proves SEMI GEM/GEM300 compliance and characterizes GEM equipment



Cimetrix® EquipmentTest

Factories and equipment suppliers use Cimetrix® EquipmentTest to run **automated test suites** that **verify** SEMI GEM and GEM300 **compliance** and **characterize equipment connectivity behavior**, without hand-building SECS-II messages.

Problem with **Status Quo**

Qualifying equipment in a factory can be a time-consuming manual process

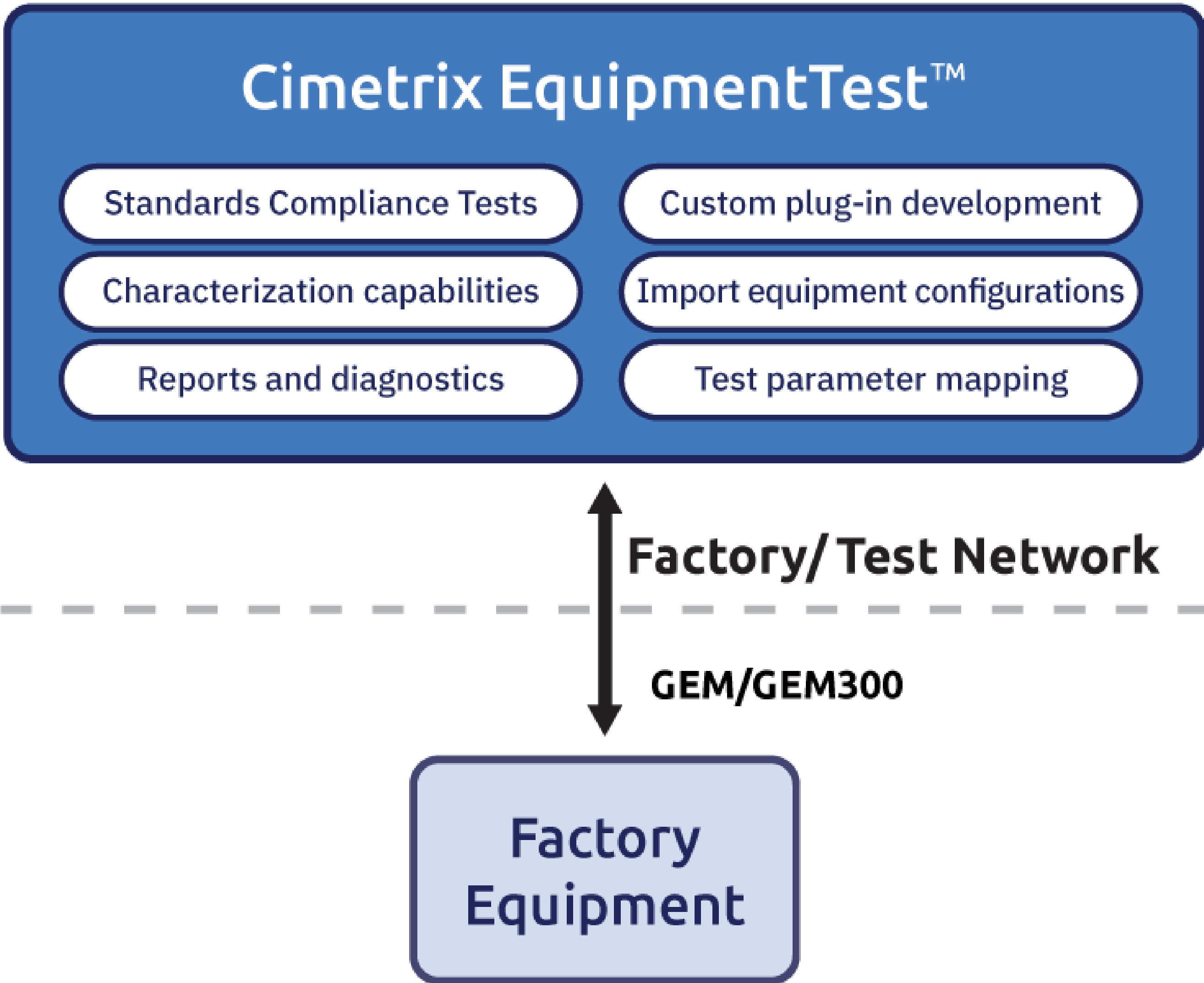
EquipmentTest automates the process of GEM interface equipment qualification, provides detailed information on failures and prints a compliance report

Solution Highlights

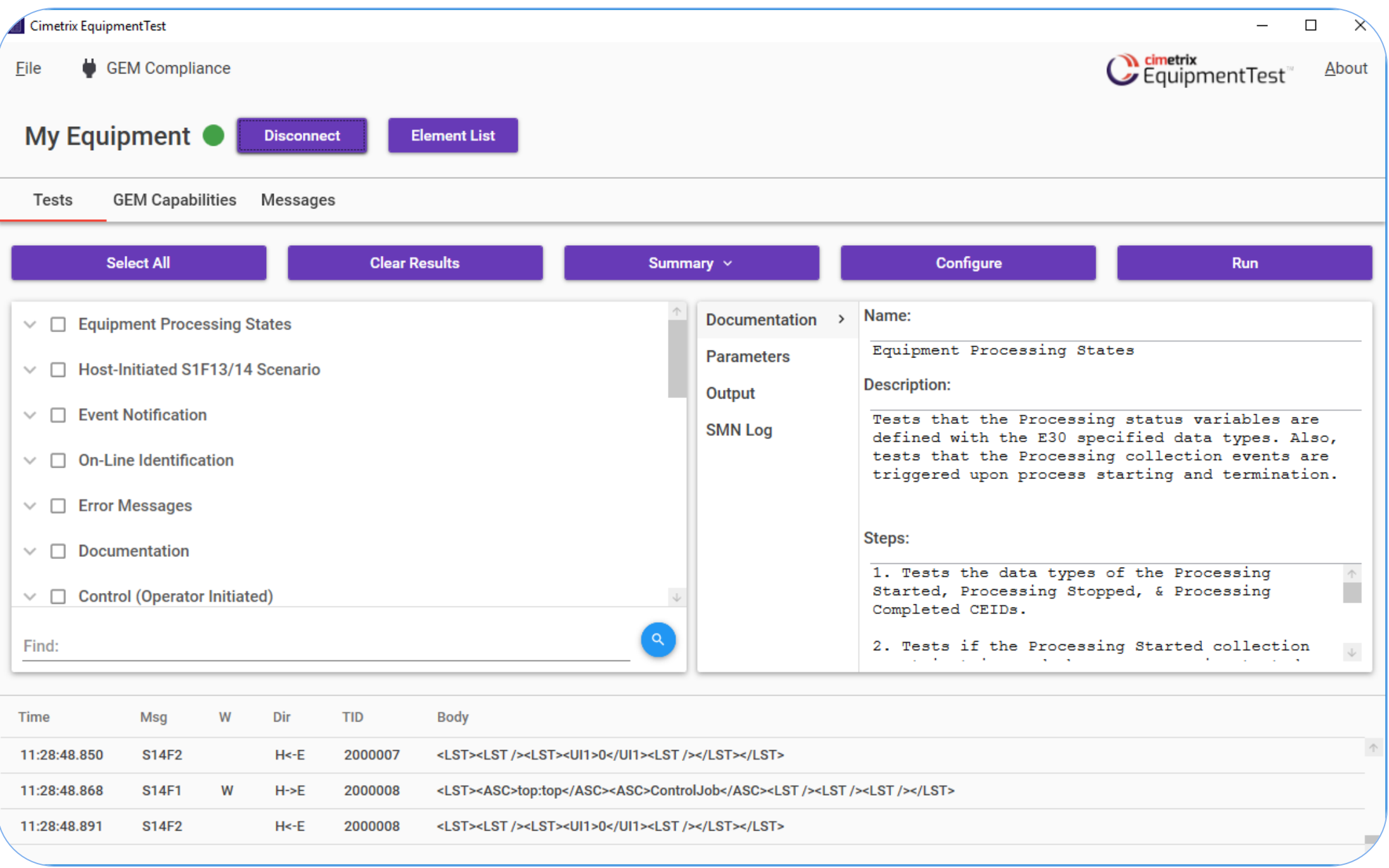
- Automates **SEMI GEM Standards** compliance testing
- Equipment characterization without being a **GEM expert**
- Granular messaging** for more precise testing

Key Capabilities

- SEMI GEM standards compliance**
GEM compliance testing / Runs SEMI E30 compliance statement tests and generates a compliance report.
- Interactive GEM/GEM300 exploration**
Interact directly with the full GEM/GEM300 interface without message-level expertise, validating any operational scenario.
- Granular message testing**
Granular message testing / Builds a custom message library to send targeted SECS-II messages to equipment.
- Factory scenarios**
Factory scenarios / Shares factory conformance scenarios between fab and OEM for tool acceptance.



Use Cases



Prove GEM Compliance

Use Cimatrix® EquipmentTest to run selected GEM **compliance statement tests** against incoming tools, enabling documented pass/fail results for every test.



Challenge

Filling out the GEM Compliance Statement with the requirements and capabilities a **time-consuming, manual process.**



Solution

EquipmentTest **automates** the GEM Compliance process and **generates a GEM Compliance Statement**



Challenge

Fabs require tool-qualification scenarios beyond GEM compliance, and OEMs **struggle to prove** they meet them.



Solution

Custom scenarios are built once and shared, letting OEMs demonstrate they meet fab-defined conditions.

Symbol	Meaning
	The test successfully ran to completion.
	The test failed.
	Invalid parameters.
	How long the test took to run.
	Test is currently running.

Develop Custom Plug-ins

Use Cimatrix EquipmentTest to **package** factory-specific scenarios as a **plug-in** that OEMs run during tool acceptance, enabling documented proof of conformance before the tool ships.

Prove standards compliance in **minutes instead of days**

Quickly characterize equipment

Rapid tool acceptance with factory scenarios

SEMI Standards



GEM – E4, E5, E30, E37

GEM300 – E39, E40, E87, E90, E94, E109, E116 E148, E157

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