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Product Updates

Equipment Automation & Intelligence Business Unit - April 2025

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Cimetrix Product Portfolio



Product Family		Product/Platform	Interface(s)/Description
Equipment	Connectivity	CIMConnect	GEM
		CIM300	GEM 300
		CIMPortal Plus	EDA (Equipment Data Acquisition)
		EquipmentConnect	GEM, GEM300, EDA, Other
		EquipmentTest, EDATester, ECCE Plus	GEM, GEM 300, EDA
	Control	CIMControlFramework (CCF)	GEM, GEM 300, EDA
Analytics Analytics	Analytics	Health Indicators	SPC predictive maintenance module for CIMControlFramework
	Analytics	DΣΣΡ	AI/ML enhanced product to provide enhanced predictive maintenance
	Digital Twin	EquipmentTwin	Virtual equipment model

CIMConnect 2.3.2 released 11/2024



- Fixed the installer to restart the cimlicense 20 service after installation is completed.
- Fixed handlers for H->E S21F1, S21F3, and S21F6 to accept an empty string for ITEMVERSION data item.
- Corrected the behavior when the folder specified in a S21F3 or S21F6 message doesn't exist.
- Reduced startup time by having certain buffers restore persisted values from NVS.

CIM300 2.5.0 target release 04/2025



- Created new AddSubstrateBatchLocation3 API to create a CxBatchLocation object with custom subscript indices for batch substrate locations.
- Fixed an issue where the substrate location indices were incorrect when calling the AddSubstrateLocation API.
- Corrected an issue where the ChangeBatchState API did not update the substrate state and location attributes in certain circumstances.
- Updated the description of equipment AsyncPRStateChange in E40PJM.epj to match its default value.

CIMPortal Plus



3.0.3 released 06/2024

Made fixes and performance enhancements.

3.0.4 released 08/2024

Fixed the installer to restart the cimlicense 20 service after the installation is completed.

3.0.5 released 09/2024

Improved the performance of large model loading.

3.0.6 released 01/2025

Restored timer resolution functionality.

CCF 7.3 released 08/2024

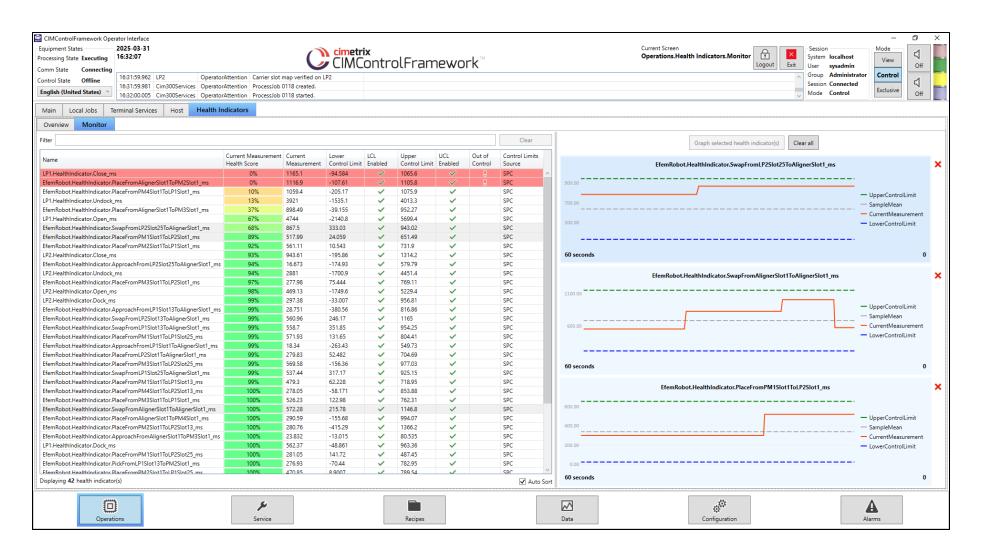


- Improve overall performance, data integrity, and update frequency.
- Added the ability to create process jobs from the Process Jobs screen and control jobs from the Control Jobs screen in the WPF Operator Interface.
- Modified the WPF Operator Interface's Sequence Recipe Editor screen to support custom locations.

CCF 7.4 released 11/2024

Introduced Health Indicators

Health Indicators



EquipmentTest 3.0.2 released 12/2024



- Fixed the installer to restart the cimlicense 20 service after the installation is completed.
- Removed the requirement where the AlarmsEnabled status variable name had to be AlarmEnabled.
- Removed the requirement where the EventsEnabled status variable name had to be EventsEnabled.
- Updated the GEM Compliance Remote Control test to remove steps that could cause the equipment to unexpectedly start processing.
- Modified the control options on the SMN History and SMN Log tabs.

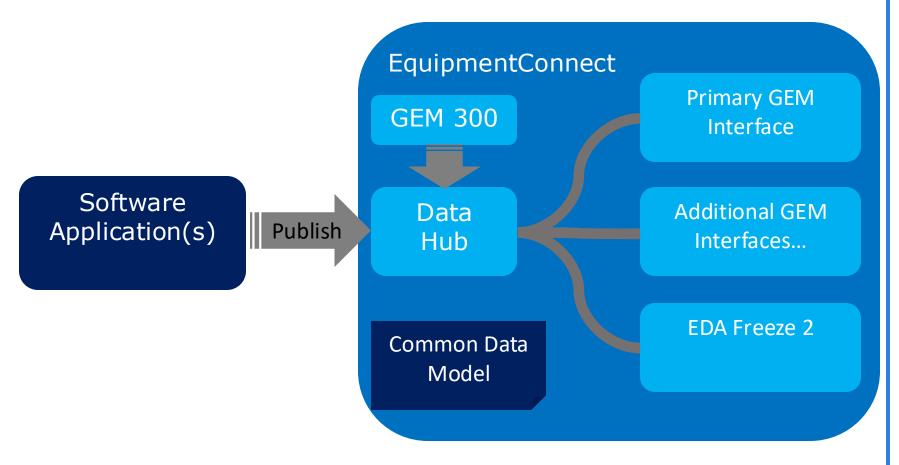
EDATester 2.1.1 released 01/2025



Updated CIMLicense20 merge module to start cimlicense20 service after installing the codemeter service.



Single Integration, Multiple Factory Interfaces



Publish Data to EquipmentConnect

- Collection Events with Data
- Sensor Data & Status
 Information
- Equipment Configuration Settings
- Alarms

Factory Interfaces

- EquipmentConnect distributes the data
- Independent data collection reports for each interface
- Available soon...
 - EDA (Freeze 2)
 - GEM 300

Future Interfaces

- Designed for future expansion
- No specific plans yet.
- OPC UA? CFX?

Cimetrix EquipmentConnect™



New Software Development Kit (SDK) for equipment communication

- Built with .NET Standard
 - Supports both .NET 8 and .NET Framework
- Windows and Linux platforms
- Multiple protocol support in a single product
 - SEMI standards (GEM/GEM300, EDA)
 - Future CFX, OPC/UA, and other communication standards
 - Custom communication channel
 - Enables high-performance secure data channels
- Runs out-of-process
- Uses gRPC APIs
- Cloud-based customer portal

EquipmentConnect Timeline

EquipmentConnect GEM

- Beta Released October 2024
- Targeted Commercial Release Q2 2025

EquipmentConnect EDA

- 1.0 Released October 2024
- Targeted Commercial Release w/GEM300

EquipmentConnect GEM300

- Targeted Beta Release Q3 2025
- Targeted Commercial Release Q1 2026



DΣΣP, Diagnostically Σnhanced Σquipment Protection

- AI/ML Powered by PDF Solutions
 - Industrial Hardened AI/ML
 - Currently in use Tier-1 Factories
 - Many years experience with AI/ML
 - Equipment Focused AI/ML
- Provides a Higher Level of Equipment Reliability and Deeper Visibility into
 Equipment Performance
 - Ability to Check Overall Equipment Health
 - Overall Equipment Health & Characterization
 - Monitor Critical Equipment Sub-Component's Health
 - Create Golden Fingerprints for Each Sub-Component
 - Predict Failures Before They Happen
 - AI/ML Monitors and Identifies When Component Health Starts to Deteriorate Over Time
 - Prevents Costly Unscheduled Tool Downtime
- Enables a new flow of recurring revenue from services contracts

DEEP Timeline

- Beta Release Targeted Q3 2025
- Second Beta Release Targeted Q4 2025
- Targeted Commercial Release Q2 2026

EquipmentTwin – Digital Twin for Operational Excellence

- Able to create an exact replica (twin) of the hardware configuration, wafer movement and encoder positions, providing precise feedback loops.
- Controls wafer movement with the same code for the Digital Twin as the actual equipment, making it the best place to optimize scheduling.
- Improving equipment scheduling by directly enhancing throughput without expensive equipment modifications.



EquipmentTwin Timeline

- Beta Release Targeted Q2 2025
- Second Beta Release Targeted Q4 2025
- Targeted Commercial Release Q2 2026

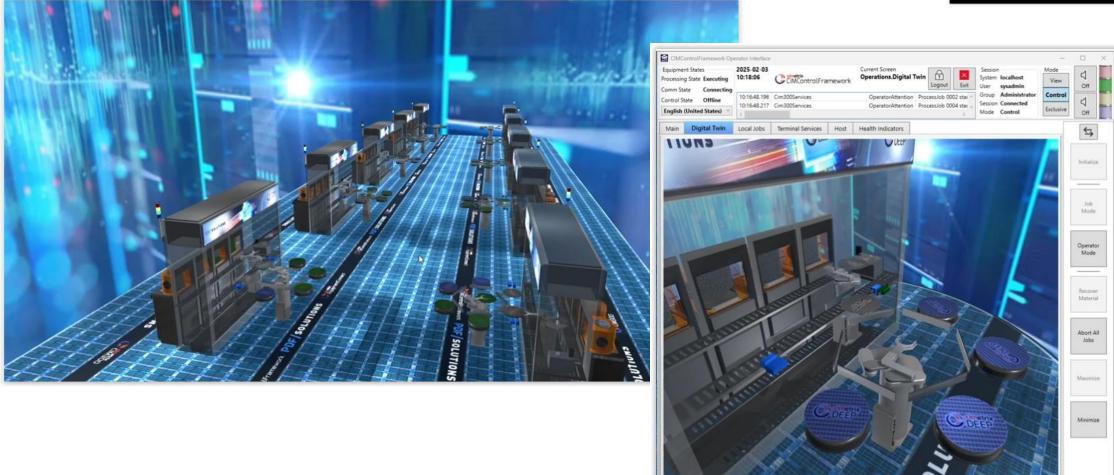
FactoryTwin – Digital Twin for Operational Excellence

- Able to create an exact replica (twin) of the factory equipment configuration, production scheduling, lot movement and storage, and process execution
- Controls lot dispatch and movement with the same code for the Digital Twin as the actual factory, making it the best place to optimize scheduling
- Improve factory KPIs by directly enhancing factory operations without expensive system modifications

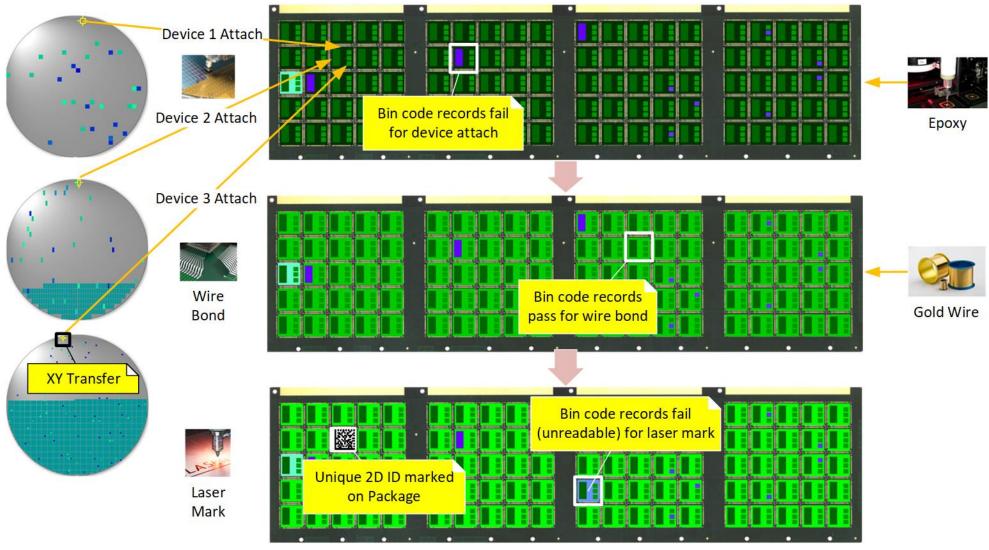


FactoryTwin – Visualization





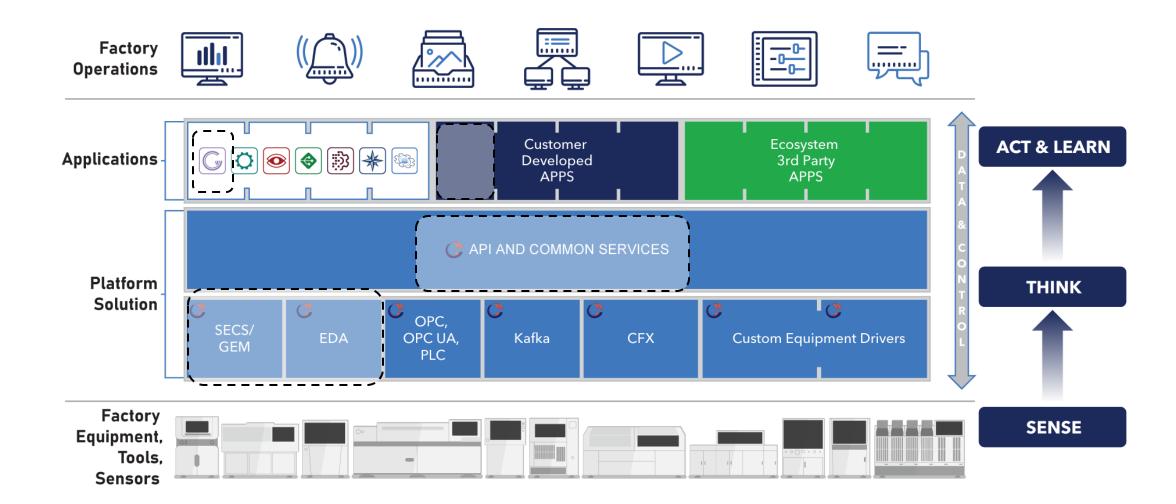
CIM142 – Integration module for E142 support in CIMConnect



CIM142 Timeline

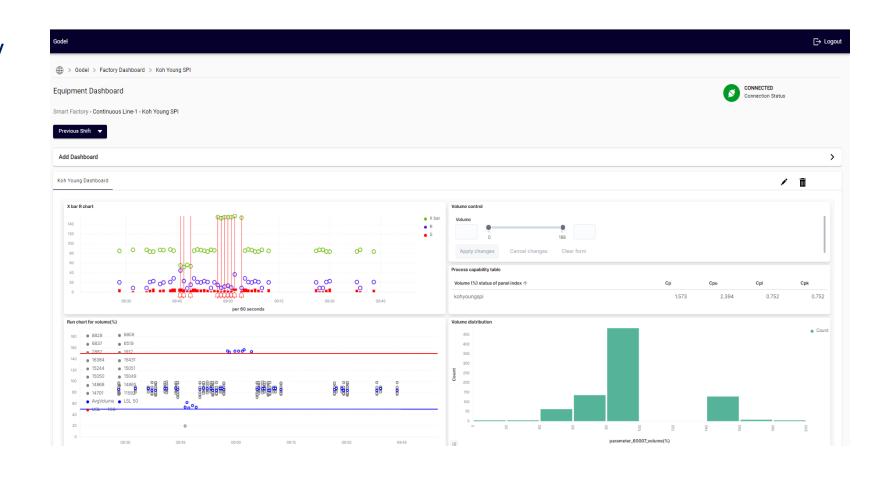
Available now for use with CIMConnect implementations

Cloud-native Smart Factory Data Platform



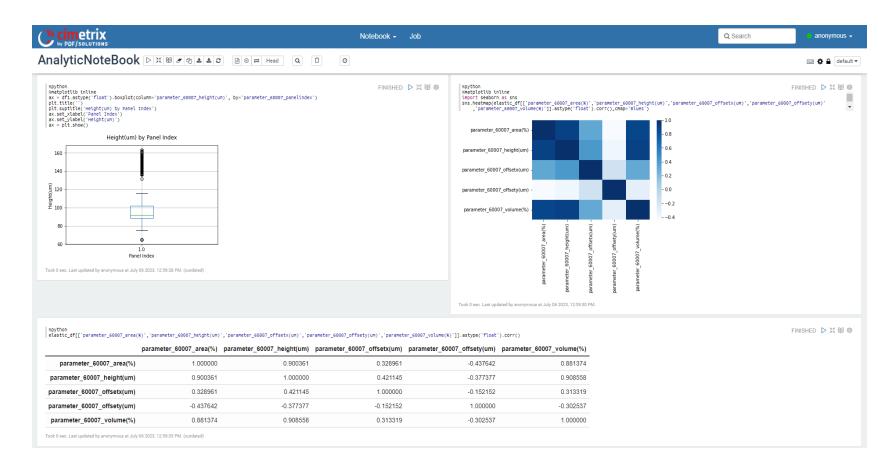
Equipment Dashboard

- Provide rich data
 visualization functionality
 through a low-code/no code Equipment
 Dashboard environment
- Default dashboards can be configured and installed
- Users can create custom dashboards for equipment using the wide range of built-in visualization types



Analytic notebooks support in-depth data analytics

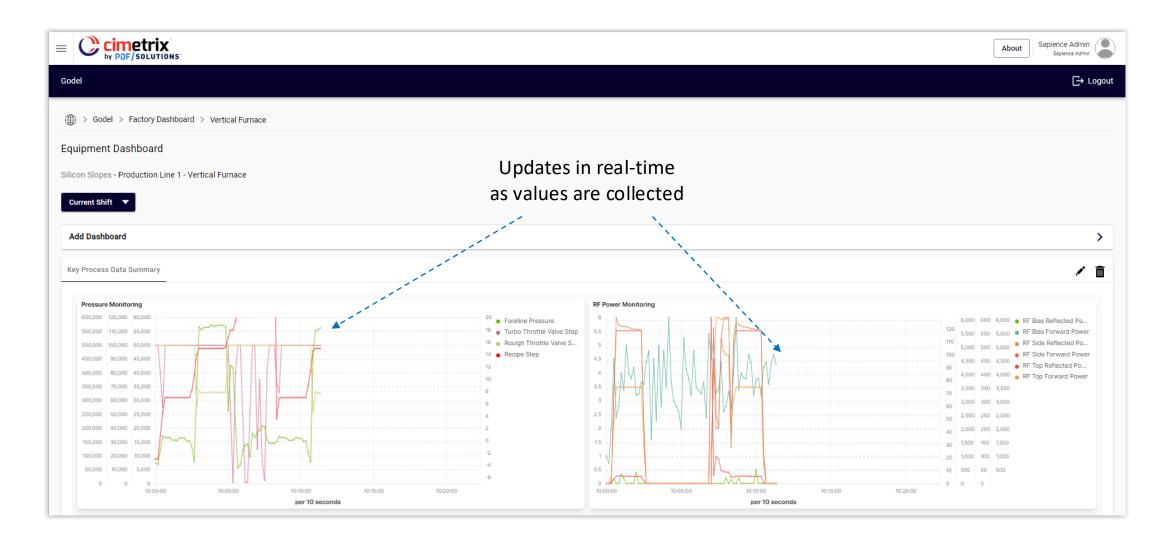
- Advanced analytic notebook technology integrated for in-depth data analysis
- Data analysts and data scientists often use computational notebooks with python and R
- Custom scripts can access stored data to leverage commercial AI/ML/DL application libraries



Factory Dashboard



Equipment Dashboard

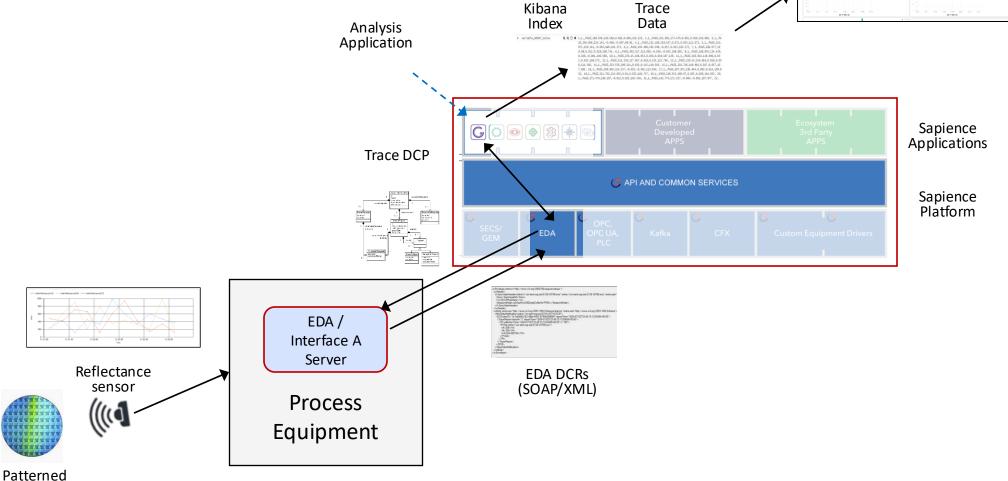


From sensor to real-time dashboard ... and everything in between

Indicated continued

| Continued to the continued of the

Real-time Equipment Dashboard



wafer

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