Opcenter™ Execution Electronics software is a full digital manufacturing solution for the electronics industry, built on the industry-leading manufacturing execution system (MES) platform for the medical device and semiconductor industries. Opcenter Execution Electronics extends throughout the electronics value chain, including printed circuit board (PCB), mechanical and box-build processes. Opcenter Execution Electronics is part of the Xcelerator™ portfolio of solutions and services from Siemens Digital Industries Software.

The solution includes best-in-class manufacturing operations management (MOM) capabilities, such as manufacturing execution, quality management, materials management, planning and scheduling as well as manufacturing intelligence, with direct connectivity to machines and production lines.

Electronics manufacturers are realizing faster new product introduction (NPI) and time to market, while improving their ability to compete in a rapidly changing, consumer-driven marketplace.

Opcenter Execution Electronics version 8.4 provides the next level of integration with material management and scheduling, enhanced features to configure NPI work instructions, and advanced and new operational reports with several usability improvements.

**Summary**

Opcenter™ Execution Electronics software is a full digital manufacturing solution for the electronics industry, built on the industry-leading manufacturing execution system (MES) platform for the medical device and semiconductor industries. Opcenter Execution Electronics extends throughout the electronics value chain, including printed circuit board (PCB), mechanical and box-build processes. Opcenter Execution Electronics is part of the Xcelerator™ portfolio of solutions and services from Siemens Digital Industries Software.

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**Benefits**

- Provide an integrated material process for SMT, THT and box assembly, including stock maintenance for all materials
- Efficient and improved production scheduling for the combination of PCB and box production
- Reduced overlapping configuration in MES and APS
- Improved scheduling results and throughput
- Increased production visibility and quality
- Fewer operator clicks and improved production efficiency

**Features**

**MES application programming interface (API) for material stock maintenance integration**

- Creates products and containers automatically at incoming material registration
- Supports component setup and part number verification for through-hole technology (THT) and box assembly
- Automatic consumption synchronization for surface-mount technology (SMT), THT and box material stock maintenance
What’s new in Opcenter Execution Electronics 8.4

Opcenter Scheduling integration enhancements
- Enterprise Resource Planning (ERP) route step enhancements to support additional data fields SMT date and SMT side. Identify ERP route steps to support full or partial transfer and for partial transfer, specify transfer quantity amount
- Resource group enhancements, definition of a resource group for SMT resources
- Identify resources as finite/infinite based on the clearance level
- Mid-batch data, quantity and resource exchange
- Electronics-specific enhancements for transfer manufacturing line to which a resource has been assigned and support for secondary constraint (tools)
- Enhanced manufacturing order scheduling page for manufacturing line assignment and additional attributes

NPI work instruction configuration in Opcenter Execution Electronics
- Added ability to author and edit instructions for any NPI job using the modeling page
- Work instruction configuration allows defining a confirm rate: per day, manufacturing order or per product
- New highlight components option allows configuring an instruction for multiple components
- The updated production client includes new configuration options and tracking of instruction confirmation
  - Automatically opens work instruction slide-out if confirmation required
  - Prevents move until all instructions confirmed
  - Confirmation history of recorded instruction
  - Viewed instructions are highlighted in green to indicate completion
  - Confirm instruction icon will change to a checkmark once the instruction has been confirmed

Production client user experience (UX) improvement: BOM support
- Displays PCB bill-of-materials (BOM) side-by-side with computer-aided design (CAD) data
- Cross-probing between BOM grid and CAD
- Un-scrap and X-out removal capabilities
- Component issue details are provided by the online traveler page

Enhanced operational reports: work-in-process (WIP) report
- Allows manufacturing order name scanning
- Displays total in-process time for each workflow step

Production client: guided manual assembly mode
- Configured at the spec level
- Optimized mode requires no keyboard or mouse interaction – simply scan lot/container to perform issue
- Guides operator through the entire assembly sequence

New operational report: electronics device history report
- Electronics device history report (eDHR) is included with the electronics installer
- Electronics-specific data is covered
Production client: WIP message support

- WIP messages are configured on modeling objects such as product, operation, spec, etc. and can display text or a document, or require an acknowledgement or password
- Added ability to detect if WIP messages are configured at move in, move standard, rework, change quantity, close

Opcenter Execution Core and Medical Device 8.4 documentation explains new enhancements also relevant for Opcenter Execution Electronics solution

- Electronic Kanban – phase 2
- New in-line statistical process control (SPC) module
- Designer 2.0 – general availability (GA) release
- Portal Studio 2.0 – GA release
- Security enhancements