ECI SOFTWARE SOLUTIONS

SPOTLIGHT SERIES

Data-Driven Dominance: Achieving Foundational Automation

May 6, 2026

Housekeeping Items

- ALL ATTENDEES ARE MUTED TODAY TO MINIMIZE BACKGROUND NOISE.
- PLEASE USE THE CHAT FEATURE THROUGHOUT TODAY'S PROGRAM.
- THIS EVENT IS BEING RECORDED. A REPLAY WILL BE SENT TO REGISTRANTS IN A POST-EVENT EMAIL.
- FOR ANY POST-EVENT QUESTIONS, EMAIL SME MEMBERSHIP AT MEMBERSHIP@SME.ORG.

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- 30 years of experience in the manufacturing operations and system development

What We'll Cover

- The Leap to Level 3: Defining Foundational Automation
- Real-time Execution
- Managing by Exception
- Series Wrap-Up & The Path to Level 4

Manufacturing Business Maturity Model: Job Shop + Mixed-Mode

Level	State of Business Processes	
4	Optimized: Proactive Processes	• Intelligent scheduling with built-in capacity optimization • Real-time shop floor data collection and part traceability • Data-driven quoting, costing, and closed-loop quality management • Automated BOM import • KPI dashboards and analytics for proactive, data-driven decision-making
3	Improved: Foundational Automation	• Automated scheduling for capacity and materials constraints. • Digital work orders, real-time job costing, and barcoded/digital inventory within ERP • Shop floor visibility for WIP status and labor tracking • Dashboards and reporting for performance monitoring
2	Streamlined: Integrated Processes	• ERP with formal routing • BOM with purchasing and basic inventory tracking • Paper travelers and basic scheduling • Quality checkpoints not integrated
1	Basic: Manual & Reactive Processes	• Disconnected systems (QuickBooks + Excel dominate) • Job cards or prints on the floor with no formal traveler • No real-time job costing or visibility into inventory

Automated & Integrated

Achieving Foundational Automation

Your ERP and shop floor exchange data automatically — reducing manual effort and delivering real-time visibility.

Real-Time Execution

Digital work orders and barcoding replace paper on the floor

WIP Visibility

Know exactly where every job stands at any moment

Automated Constraints

Capacity and material limits handled by the system, not a person

Focusing on Data Flow as the Foundation

⚠ Common Myth

Level 3 means buying robots and expensive automation hardware.

✓ The Reality

Level 3 means your systems talk to each other — data flows automatically between ERP, shop floor, and scheduling.

Automated data flow — no manual re-entry

Manufacturing Business Maturity Model

4 **Optimized: Proactive Processes**
Intelligent scheduling · Real-time shop floor data · Data-driven quoting & costing · KPI dashboards

3 **Improved: Foundational Automation ▶ TODAY'S FOCUS**
Automated scheduling · Digital work orders · Real-time job costing · WIP visibility · Dashboards

2 **Streamlined: Integrated Processes**
ERP with formal routing · BOM + purchasing · Paper travelers · Basic scheduling

1 **Basic: Manual & Reactive Processes**
QuickBooks + Excel · Job cards/prints · No real-time costing · No inventory visibility

Real-Time Execution

From paper to digital — on the shop floor

- **Digital Work Orders & Barcoding**
- **Real-Time Labor Tracking**
- **Job Costing — Redefined**

Moving Beyond Paper

Digital Work Orders & Barcoding

Work Order at Every Station

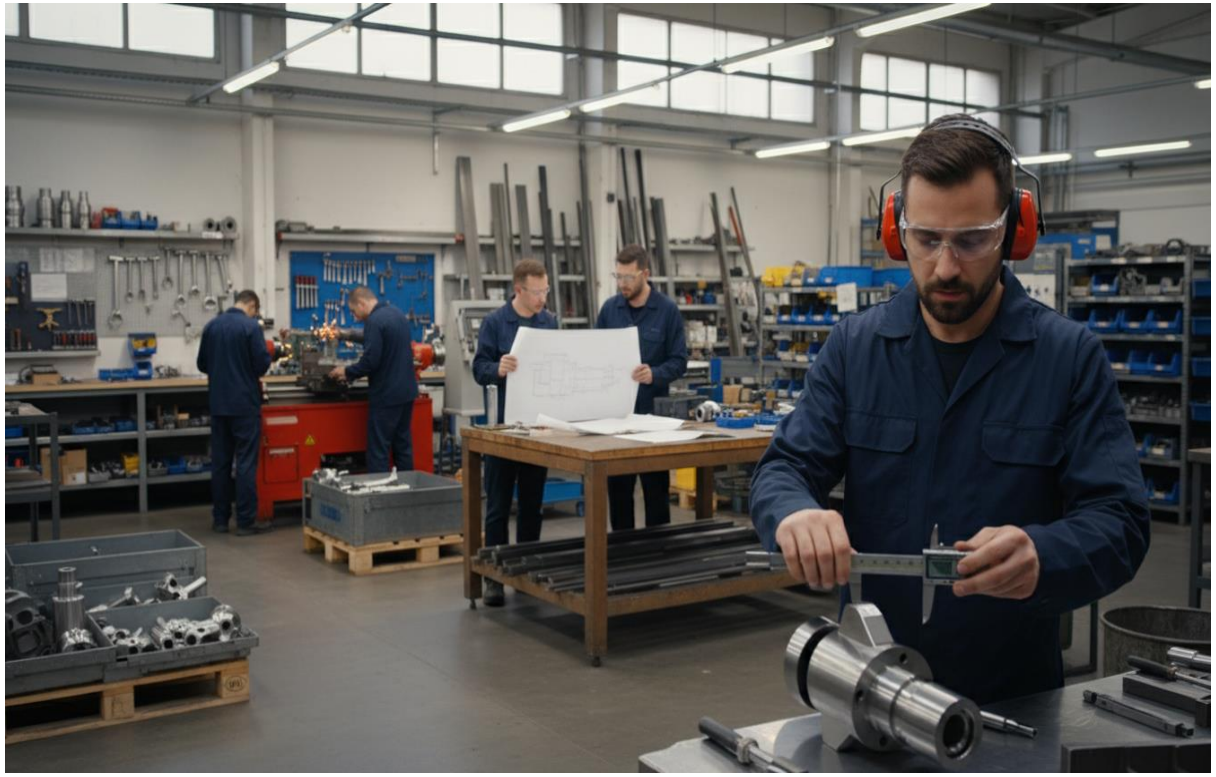
Digital instructions replace paper travelers — always current, never lost

Barcode Scan to Start/Complete

Workers scan to clock on/off operations — no manual entry

Live ERP Updates

Each scan updates job status instantly across the entire system



Real-time Labor Tracking

How Job Costing Changes When You Have Live Data

Without Real-Time Tracking

- Labor hours estimated at end of week
- Job costs known only after completion
- No visibility into over-runs until too late

With Real-Time Labor Tracking

- Hours post as work happens
- Job cost visible mid-production
- Alert when a job is running over budget

Real-Time Execution Benefits

Accurate Job Costing

Know true labor and material cost per job — before the job ships

Eliminate cost surprises

Fewer Errors

Barcoding eliminates manual time-entry errors and lost paper travelers

Single source of truth

Faster Problem Detection

Issues surface in hours, not days — managers can act while the job is still on the floor

React in real time

Managing by Exception

From firefighting to oversight

- Dashboards & WIP Visibility
- Managing by the Numbers
- Capacity & Material Constraints

Dashboards & WIP Visibility

- See every open job, its stage, and its status — at a glance.
- Exceptions surface automatically — you don’t need to go looking.
- Focus management energy where it’s needed, not everywhere.

Shift from Reactive to Proactive Oversight

Managing by Numbers

Before Level 3 — Reactive

Manager walks the floor all morning looking for problems. Gets reports hours late. Makes decisions based on yesterday's numbers.

Always behind. Always firefighting.

At Level 3 — Proactive

Manager reviews the exception dashboard. Three jobs flagged. Takes targeted action before lunch. Afternoon is clear.

Managing by exception — not by walking.

Capacity & Materials Constraints

Capacity Constraints

System flags overloaded work centers automatically

Scheduling re-sequences when capacity is exceeded

No more surprise overtime at week's end

Material Constraints

Short-supply alerts triggered before production starts

Purchasing linked directly to open work orders

No more stopping a job mid-run for missing parts

Automated Constraint Handling

Let the system catch problems before they become crises.

Catch the Problems Before They Become a Crisis

Automated Constraint Handling

Capacity Constraints

- Replace paper travelers
- Real-time job status updates
- Accurate labor tracking
- Immediate visibility into WIP

Setup an easy transition to scheduling

BEFORE AND AFTER

Transformation Snapshot

Before Level 3

- ✕ Paper travelers on the floor
- ✕ Labor hours entered at end of shift
- ✕ Job costs known only after completion
- ✕ WIP status based on walking the floor
- ✕ Capacity issues found too late
- ✕ Firefighting is the daily routine

At Level 3

- ✓ Digital work orders at every station
- ✓ Labor hours posted as work happens
- ✓ Live job cost visible mid-production
- ✓ WIP dashboard visible from any screen
- ✓ Capacity alerts triggered automatically
- ✓ Exception dashboard drives daily actions

Built on the foundation you're building now

Level 4: Proactive, Data-Driven Optimization

What Level 4 Unlocks

- Intelligent scheduling with built-in capacity optimization
- Real-time shop floor data and full part traceability
- Data-driven quoting and closed-loop quality management
- KPI dashboards for proactive decision-making

What Gets You There

- Stable Level 3 foundation (this webinar)
- Clean, connected data from shop floor
- Team adoption of digital work orders

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Watch on Demand Now!

LEARN. GROW. ADVANCE.

Your Path to Level 3 Starts Now

Assess Your Level

Take the manufacturing maturity self-assessment

On-Demand Now

Watch all ECI Spotlights on demand now through the SME Engagement Activities page.

Questions for Fred?

Please share your questions for Fred in the chat.

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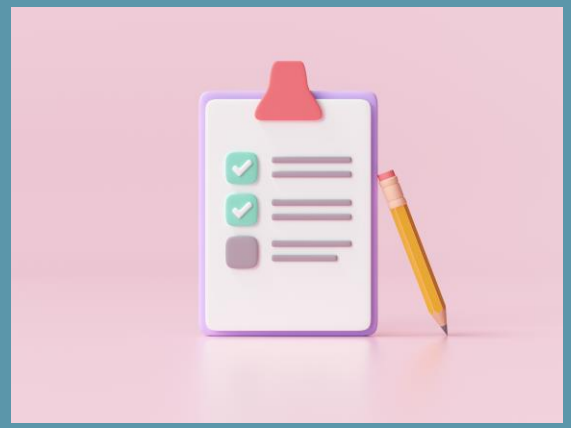
Please share your feedback with us - link is in the chat!



Thank you for tuning in for this program.