

MES 4.0 POWER TOOLS FOR MANUFACTURING OPERATIONS MANAGEMENT

Brochure

MES 4.0

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The DELMIAworks Manufacturing Execution System (MES) monitors activity and supports proactive decision-making through operator support, planning, scheduling, resource management and accurate real-time production visibility.

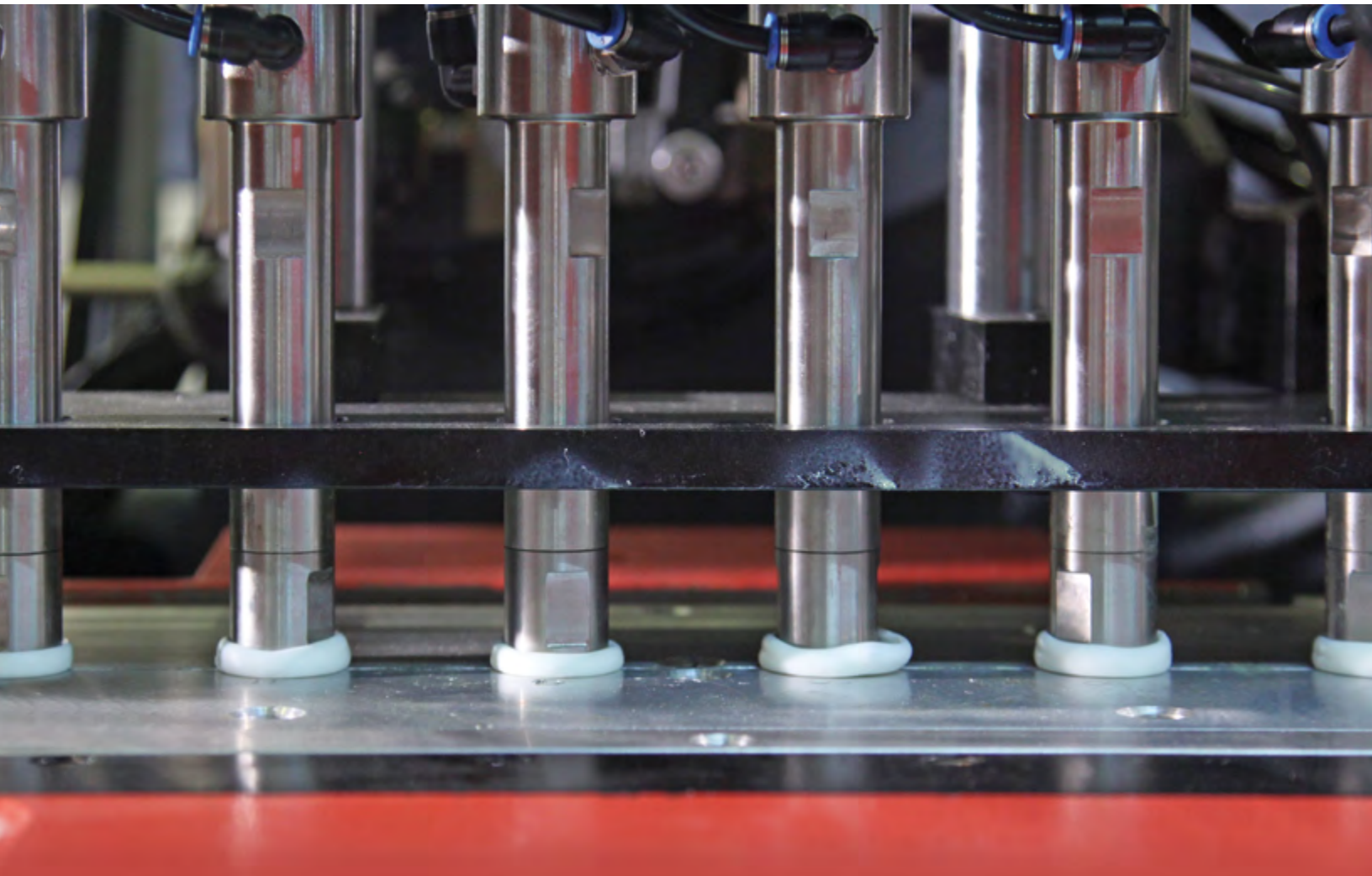
This practical, proven and affordable technology brings real-time, closed-loop feedback that enables flexibility and delivers consistent clarity with measurable Return on Investment (ROI).

Your manufacturing operations can be transformed through the use of the modern Manufacturing Execution System (MES) from DELMIAworks. With tailorable modules and industry-specific options available, DELMIAworks' comprehensive and integrated MES software has been built from the ground up to bring innovative manufacturers like you resources that are practical, efficient, up-to-the-moment and accurate.

From a stamper near Chicago, Illinois: "With these modules that all tie together, we have been able to plan production, control costs and keep track of where everything is in the process. With the growth we've had, DELMIAworks is the tool that enabled our expansion."

KEY BENEFITS

- Improve cash flow
- Maximize uptime
- Minimize O/T & rush charges
- Get accurate actual costing
- Streamline transfer of product data to quality and operations
- Avoid gaps and mistakes in production & process data
- Discover improvements
- Diagnose problems



DELMIAWORKS MES 4.0™ THAT ENABLES YOU TO BE ON TOP OF YOUR OPERATIONS 24/7

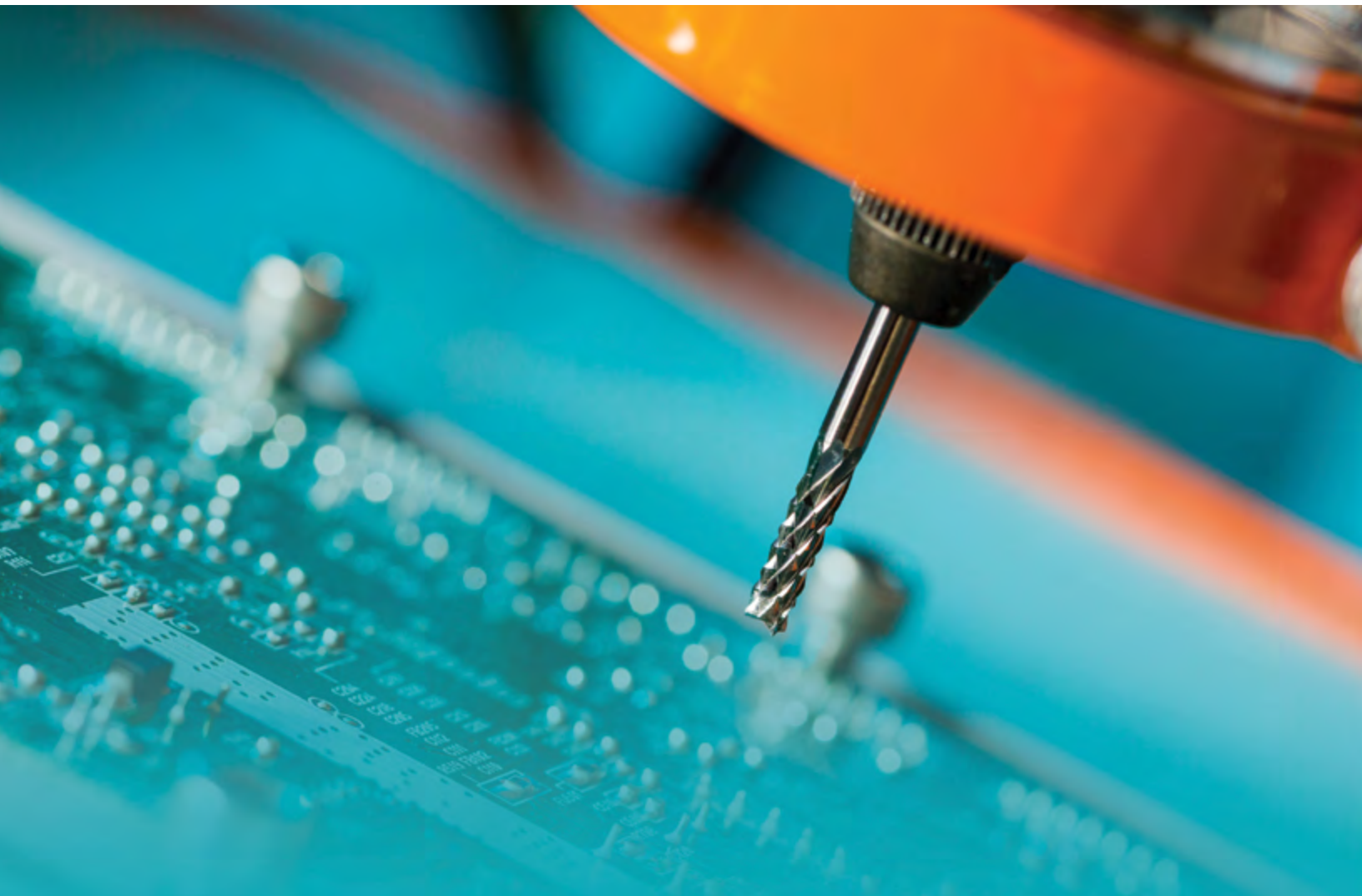
Many manufacturers have several different software systems on their shop floor in an attempt to have “best of breed” solutions. However, it can be a challenge to get these packages to share information so you don’t have to do so manually. If data entry gets out of sync, costly gaps and errors can occur.

As a manufacturing leader, you should not have to carry around the state of operations across your entire facility in your head. The good news is you don’t have to struggle with mixed databases and report formats. You can have trend analysis, automated alerts and meaningful summaries available to you anytime you need them, built from the ground up for comprehensive manufacturing operations management.

DELMIAworks’ state-of-the-art MES software has been built at the request of innovative manufacturers over the last two (2) decades to make Manufacturing 4.0 a reality. We continue to enhance DELMIAworks MES with fast response, preventative, and predictive analytic tools to keep your process quality and capability consistently on track.

In addition to unrivaled manufacturing intelligence, DELMIAworks also offers scheduling, detailed inventory tracking, a comprehensive suite of quality modules, labeling, product traceability, real-time process monitoring, tool management, maintenance, and lean manufacturing tools.

DELMIAworks MES 4.0 monitors activity and supports proactive decision making through operator support, planning and scheduling, resource management and accurate real-time production visibility – all from a single solution provider.



VALUABLE FUNCTIONALITY DELMIAWORKS MES 4.0 DELIVERS:

Planning and Scheduling

Lightning-fast drag and drop scheduling works on-demand, in seconds, like a spreadsheet. Incorporate all your demand as well as equipment, approved operators, tooling and planned downtime into one central engine that optimizes your schedule to meet customers' expectations and your lean business objectives.

Manufacturing Intelligence

Leverage the data collected by your MES to bring up-to-the-minute Overall Equipment Effectiveness (OEE) data and Key Performance Indicator (KPI) reporting and analysis to your fingertips for informed decisions

Quality Management

Manage customer requirements and standards documents as well as critical quality aspects to keep product characteristics and equipment operating parameters consistently under control. Use integrated Statistical Process Control (SPC) to identify unfavorable trends and alert quality staff before production goes out of specification. Supported charts include X-bar-R, X-MR, p-np and histograms as well as capability analysis with Cpk and Ppk. If a customer or a team member raises a question, address it with a Corrective Action Report in CAPA, 8D and other formats.

Inventory Optimization

Maintain lean inventory levels and manage all aspects of manufacturing demand with Material Requirements Planning (MRP), automated Kanban-based load leveling module based on Every Part Every Interval (EPEI) calculations.

Tooling Management

Manage tool prep and setup to assure your tools, dies and fixtures are ready to run production jobs when they are scheduled. Handle simple, complex, progressive and multi-cavity family tools with ease. Plan preventative maintenance based on production days or link to DELMIAworks Real-Time™ production monitoring to plan PMs for tool wear based on machine cycles.

Preventative and Predictive Maintenance

Establish a supply crib stocking plan and complete preventative maintenance program for your machines, tools, auxiliary equipment, and gauges to minimize unexpected downtime. Leverage automated equipment monitoring to build an effective predictive view of machine performance to dramatically reduce surprise downtime.

From a large Tier I automotive supplier in the mid-west: *"With DELMIAworks we've reduced maintenance costs alone over 70 percent, and achieved lean objectives like reduced cycle time, automated workflow, and the elimination of redundant processes."*



LEVERAGE TECHNOLOGY FOR CLOSED-LOOP FEEDBACK FOR CONSISTENT ASSURANCE OF PERFORMANCE

DELMIAworks Real-Time™ Automated Monitoring

The Industrial Internet of Things (IIoT) is broadly touted for its potential to help boost productivity for manufacturers. DELMIAworks is a proven leader in this technology. Building on experience from customer automation projects for two decades, DELMIAworks has been innovating automated monitoring of equipment and process parameters on the shop floor with proven Return on Investment (ROI).

Automatically and continuously measure production output, equipment capability and process parameters such as temperature, pressure, flow, current, position, speed, size, etc.

Monitor the heartbeat of your plant on the intuitive shop floor overview display and SPC charts from your equipment's smart sensors, existing automation controls or DELMIAworks designed and built integration PLCs to instrument older machines with add-on sensors. RT Charts analytics constantly monitor parameter behavior against set limits on capabilities.

The event-based notification system enables you to capture and evaluate data for predictive alerts, proactive decision making, and timely corrective actions.

Simplify your automation project with one-stop integration engineering.

When it comes to thoughtful application of technology, you can trust DELMIAworks to simplify the process.

DELMIAworks provides comprehensive and experienced planning and set up of integration to your equipment, automation controls and/or sensors added to older equipment with DELMIAworks' own interface hardware - PLCs, machine state light poles, RT Station rugged industrial touch screen tablets and more.

Whether you need "big data" capture and software tools for management and analysis or simply a comprehensive view of your entire shop floor, you will work with DELMIAworks automation engineers to assure a successful technology project.



Mobile technology enables you to stay connected as you are on the go

DELMIAworks MES 4.0 tools and options interface with today's mobile technology. While it is impractical to try running your entire operation from a smartphone, it can be a handy window into key information to enable you to quickly respond to customer, supplier or team member questions.

From the dozens of apps available, choose to review production metrics, check inventory, accept workflow requests and approve document changes on the fly.

Your data is your data – see it flow where it needs to go

With our powerful and flexible data exchange web-service interface, DELMIAworks MES 4.0 can be integrated with your existing Enterprise Resource Planning (ERP) software to enable you to make fact-based decisions in real-time, with all of your critical information flowing easily back and forth between the systems.

If it is time to consider replacing your aging ERP system, DELMIAworks has a comprehensive wall-to-wall manufacturing enterprise solution. DELMIAworks native capability is unique in covering your entire business from the front office processes like CRM, Estimating, Quoting, Sales, Engineering, Purchasing, HR, Payroll, and Accounting, through to MES, Shipping and EDI managed on a single, scalable database.



WITH DELMIAWORKS, CHOICE IS THE NEW CLOUD

The cloud can be a highly effective deployment model for ERP, but not all cloud options are equal, and for some companies, the cloud may not be the right solution.

The Choice is the New Cloud program features three deployment models for the DELMIAworks system that are designed to support the needs of manufacturing firms. Many of these businesses need to balance cost savings with the flexibility to meet certification requirements and customize their ERP solution to drive innovation and enhance existing operations. Because the DELMIAworks deployment models enable customers to either own the software or act as a single tenant, manufacturers do not have to compromise on control, no matter which choice they make.

Software as a Service (SaaS) is for customers that want to take advantage of the DELMIAworks system on a subscription basis. This deployment runs in DELMIAworks' secure, robust cloud-based data center. Managed services and support are included in the subscription.

Managed Cloud is for manufacturers that want to own their DELMIAworks license but take advantage of a hosted cloud deployment. Customers purchase a perpetual license of the DELMIAworks system, which is hosted in DELMIAworks' cloud-based data center. Managed services are included as part of the support cost, billed periodically.

Premise is for customers that want to run DELMIAworks software in their own data center either directly on servers or in a private cloud. Manufacturers purchase a perpetual license, and support is billed periodically. Managed services are optional.

In guiding manufacturers to choose the right deployment option for their business, DELMIAworks works with companies to answer key questions that will affect their decisions.

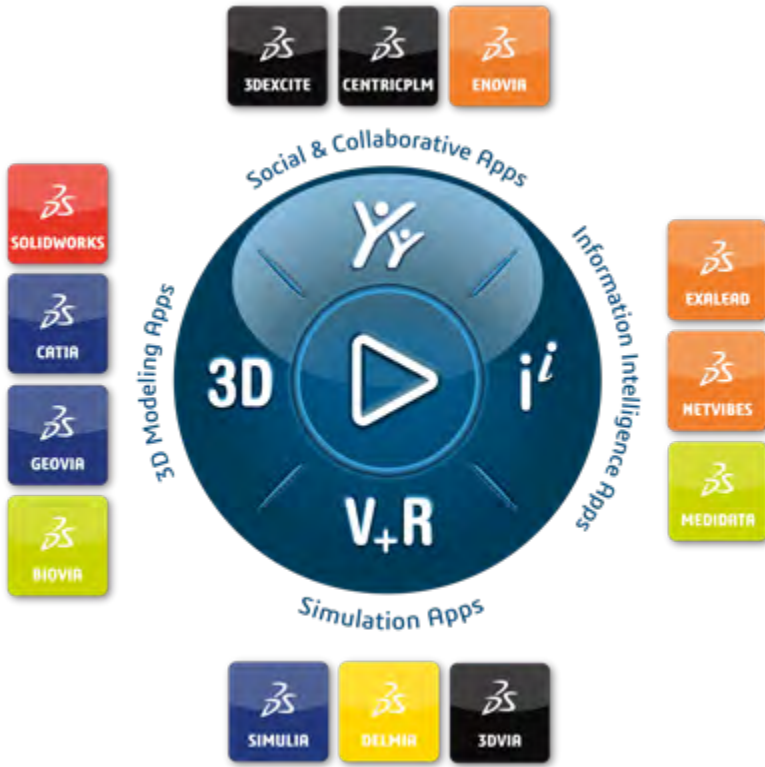
WHY DELMIAWORKS?

Born on the shop floor, DELMIAworks has been delivering productivity improvements to manufacturers since 1989. Innovate and stay lean with unique, powerful manufacturing execution system software built on a single database to effectively manage all of the activity on your production floor.

Keying and rekeying the same information manually to transfer it from system to system while relying on employees' memories to do so can lead to errors and gaps in critical data. Being 90% accurate is not good enough when it comes to serving your customers. Why settle for 90% (or less) accurate information and reporting to help you run your manufacturing operations?

DELMIAworks' value comes from the industry experience of our key leaders and specialists. The best way to understand your needs and priorities is to have walked in your shoes. This experience enables us to identify the right configuration of our many modules, features and configurations to solve your priority issues and provide the best return on your investment.

For more information, please visit www.3ds.com/delmiaworks or call 1.866.367.3772



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