

Tecnomatix for Electronics – manufacturing execution for electronics

Leveraging the RoHS transition as a competitive advantage

Benefits

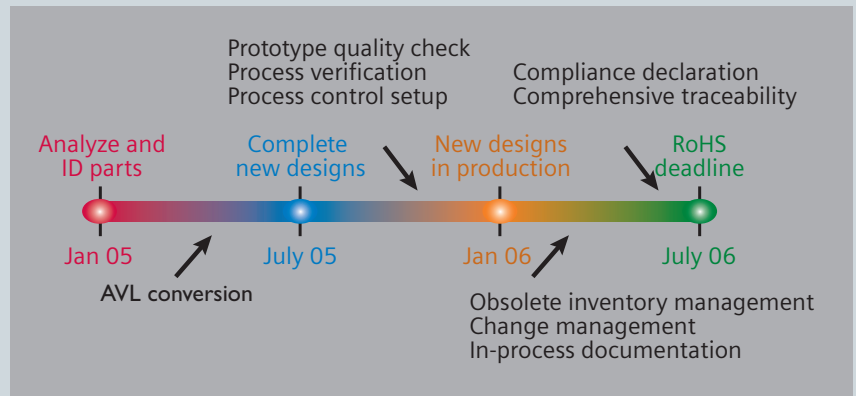
- Prevents manufacturing productivity loss during the lead-free transition process
- Solves the part numbering confusion and associated inventory puzzles
- Traceability and compliance declaration out-of-the-box, complying with industry standards
- Process verification and monitoring to avoid assembly and inspection mistakes, including MRO support
- Manages rapid ECO changes in a single system without losing traceability and control
- Enables improvement of your quality and reliability metrics
- Leverages the RoHS transition period as a competitive advantage

Features

- Identify parts that comply or are exempt from the RoHS directive
- Store and manage “as-built” component, PCB and box information in one location
- Get accurate real-time visibility to your dual-inventory during the transition period

Summary

Tecnomatix® for Electronics software is the only proven manufacturing execution system (MES) developed specifically for the electronics industry to leverage the lead-free transition as a business opportunity for global contract manufacturers and a competitive advantage for brand owners (OEMs). By managing the entire manufacturing lifecycle during the transition, Tecnomatix for Electronics accelerates manufacturing compliance and allows global manufacturers to declare early process readiness including “as-built” documentation.



If you have been focusing on the technical and sourcing issues related to lead-free manufacturing, it is now time to step back and adopt a strategic perspective on compliance.

As a result of the RoHS 2006 directive, manufacturing shop floors are being flooded with a mix of components and products that must be controlled, assembled, tested and documented. All of this must be done cost effectively without compromising quality and reliability.

Being early to market with a declaration of compliance could mean big payoffs in the form of new and add-on business. The rigid timeline implies that all potential shop floor issues must be tackled early to assure mistake-free execution with irrefutable proof of compliance.

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Features *continued*

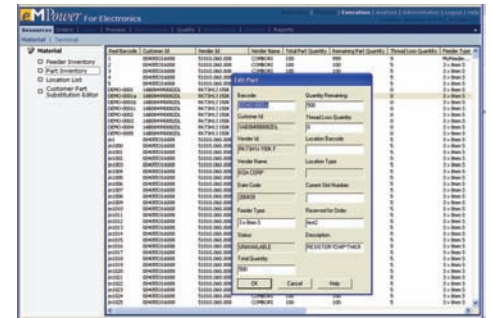
- Real-time verification to ensure that the correct components, assets and processes are used as planned
- Apply, manage and track ECO implementations on the shop floor at both PCB and box levels
- Tight quality process control and early warning alerts at assembly, inspection and test
- Single-click traceability and compliance documentation at component, process and product levels

Key manufacturing execution issues that must not be overlooked:

- *Managing AVL release to shop floor* – Nearly half of component manufacturers do not plan to identify lead-free parts via new part numbers. Having a variety of approaches to identify parts is not only confusing but also requires distributors, OEMs and contract manufacturers to adjust back-end IT systems to manage all possible variations.
- *Inventory management* – With execution of RoHS 2006, you can expect an increase in non-compliant, lead-based (hence obsolete) material in various stages of production that need to be identified early and disposed or consumed when appropriate. A system that can electronically track and manage these materials will be critical to managing inventory and compliance effectively.
- *Process verification* – Real-time process verification during assembly, repair and service confirms that compliant processes, trained/certified operators and compliant materials are being used. Furthermore, due to differing legislation, your process must distinguish – down to a component level – any products sold before and after July 2006.
- *Maintaining quality* – Migration to lead-free assembly is expected to increase manufacturing defects. Instituting process control, triggering early warning alerts and identifying root cause quickly is critical to preventing typical process variations from becoming trends that put your business at risk.
- *Change management* – Manufacturers will be flooded by repeated waves of part change notices as component suppliers will be obsolescing lead-based catalog lines. Without a proper change management solution, manufacturers can expect increased delays, more rework, quality and compatibility issues in addition to more time and resources spent on managing and tracking changes. Furthermore, manufacturers who cannot properly archive changes will not be able to document compliance.

“As-built” BOM and vendor part information management

In the form of a “data capture kit” this capability can insulate your enterprise systems from expensive upgrades and eliminate confusion at the point of release of material to the shop floor.



Real-time inventory management

Component tracking, including setup verification and change history, can ensure that only compliant material is used in production. Material expiry “watch lists” help identify obsolete material and assign disposal instructions to keep inventory under control.



Traceability and documentation

Traceability at component, process and product levels allows manufacturers to self-declare compliance through comprehensive documentation as well as share information with their global partners through standard document templates for PCB and final (box) assembly.

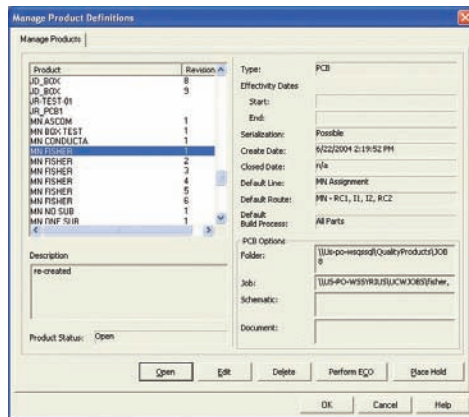
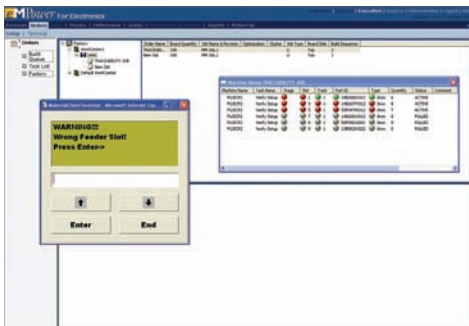


Quality management system

Single-click comparisons between lead-based and lead-free production metrics to identify root cause of defects from changes in process parameters helps minimize the anticipated rise in quality issues expected during the transition to lead-free assembly.

Process verification

Verification at assembly, repair and service ensures that compliant processes, trained operators and appropriate materials are used based on the type of product, period of production and date of sale.



Change management system

Manage serial number effectivity in ECOs to control revision compatibility as well as track changes. Enforce rework and retest. Deliver accurate ECO documentation and rework instructions. Capture all ECO history at PCB and box levels.

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