

MIGRATION OF LEGACY SEMICONDUCTOR MES TO EYELIT MES



Solution Focus: Eyelit MES

KEY TAKEAWAYS:

- Elimination of numerous software “barnacles” that were custom developed to fill MES functional gaps
- Fast and secure conversion of all current inventory, WIP, and equipment information
- Short weekend cutover to enable seamless tracking of material on the new MES

PROBLEM:

MACOM WAS LOOKING FOR A NEW MES SOLUTION TO RETROFIT THE MANUFACTURING AND ASSEMBLY FACILITIES IN LOWELL, MASSACHUSETTS AND TORRANCE, CALIFORNIA. MACOM HAD THE OPPORTUNITY TO ESTABLISH AN INDEPENDENT FACTORY CONTROL SYSTEM, IF IT COULD BE DONE WITHOUT INTERRUPTING THE ACTIVE WAFER MANUFACTURING AND ASSEMBLY PROCESSES. THERE WAS A THREE-MONTH WINDOW OF OPPORTUNITY FOR CONVERTING THE FORMER PROMIS MES TO A NEW SYSTEM. MACOM WAS ALREADY USING EYELIT TECHNOLOGIES’ OPERATOR STATION GUI AND PREMOTE™ CONNECTIVITY MODULE TO ENHANCE ITS PROMIS MES. SINCE EYELIT TECHNOLOGIES OFFERED A FULL-FEATURED MES, INCLUDING OTHER MODULES SUCH AS EQUIPMENT MAINTENANCE AND SPC, MACOM CHOSE TO ASSESS THE FEASIBILITY OF A COMPLETE CHANGEOVER TO EYELIT MES.

MACOM wanted to streamline processes and reduce paper waste. The company wanted to take advantage of a newer technology that, unlike legacy solutions, would provide continued support and product enhancement. They evaluated the overall project cost, ongoing maintenance costs, and risk factors. MACOM performed a small pilot test. The results showed that Eyelit MES could provide a fast, efficient, lowrisk conversion and provide all the functionality necessary for its factories.

SOLUTION:

MACOM chose to switch to Eyelit MES. The company migrated and was live within 12 weeks. In implementing the Eyelit MES, MACOM was able to eliminate 12 custom software programs, supplemental processes that used Microsoft Access and Excel, and reduced paper usage by converging the existing PROMIS MES and “barnacles” into a single Eyelit MES system.

Additional production areas that had not been modeled in the PROMIS MES were added to the newly deployed Eyelit MES model. The integration of the MES with SAP, MACOM’s ERP system, was also preserved.

RESULT:

The implementation team was successful in converting MES systems over a weekend. The transition did not cause any scrap or misprocessing. "We experienced exceptional support from the Eyelit Technologies team during this successful migration and we already see the solution as an enabling technology. We've simplified our model and eliminated many of the custom programs we had needed to augment our legacy MES. With our legacy MES product, we questioned the value of our support dollars and what we were getting in return," said Charles Gagne, Director of Wafer Operations, MACOM.

Some companies inaccurately assume that it would be cost-prohibitive to replace their legacy MES systems. Eyelit Technologies has demonstrated that it can deliver a proven, low-risk solution for much less than other MES solutions and provide customers with greater capability and flexibility.

Many companies face cost trade-offs with existing MES systems, such as costly hardware and software upgrades, cost of corporate application upgrades, and support costs. There may also be risk of having to rely on limited skillsets and expertise and dealing with ongoing complications with version compatibility with operating systems, databases, and applications.

The replacement of **PROMIS MES** with **Eyelit MES** included the following benefits:

- Replacement of old legacy hardware with more economical and modern hardware
- Elimination of numerous software "barnacles" that were custom developed to fill MES functional gaps
- Preservation of SAP ERP integration to maintain assembly part conversion and sales order tracking
- Preservation of established scheduling methods using key metrics for prioritized dispatching
- Fast and secure conversion of all current inventory, WIP, and equipment information
- Short weekend cutover to enable seamless tracking of material on the new MES
- Minimization of re-training, cost, and risk

ABOUT EYELIT TECHNOLOGIES

Eyelit Technologies is the parent company for Eyelit, MESTEC, and Optessa who are leaders in Manufacturing Execution (MES), Advanced Planning and Scheduling (APS), Manufacturing Operations (MOM), Quality Management (QMS) and Factory Automation solutions. The Company is headquartered in Holmdel, New Jersey; with additional offices located worldwide.

Eyelit Technologies has delivered unmatched results for a global customer base in the manufacturing industry using cutting edge technology and advancements in AI, ML, and optimization.



ABOUT MACOM

MACOM is a supplier of semiconductors, active and passive components, and sub-assemblies for use in radio frequency, microwave, and millimeter wave applications. Based in Lowell, Massachusetts, the company also has several sites worldwide to support both manufacturing and R&D.