



## Minimize The Pain, Maximize The Gain Of Implementing An MES

by James Wood

Manufacturing Execution Systems (MES) are a valuable asset. Designed to empower operators and promote visibility into manufacturing operations, very often the solutions become complicated; instead of gaining value, the very people who should be benefitting become side-tracked. What data should be collected? When should it be reviewed? How long are we going to have to do this? Whose idea was this anyway?

Once these types of questions start to creep to the forefronts of users' minds, the slow, inevitable decline of the efficacy of the solution intended to support their day-to-day work begins. The initial engagement and empowerment realized by the teams will ebb away, and it is like pushing a boulder uphill trying to re-energize staff to stay on the path to manufacturing greatness. Often solutions are seen as too complex, due to the apparent will to collect terabytes of data, falsely believing that data will drive enlightenment, leading to the often-heard phrase — "It's only data unless you use it".

But MES does not have to be ultra-complex. It is not necessary to have armies of systems integrators on stand-by, waiting to code and configure the next key data-point. Modern solutions peel back the complexity, and bring real advantages to businesses at many levels. What has to happen to realize the power of such a solution? It certainly won't drive itself. The answer lies in the engagement of the operators, and the way a business organizes itself to realize the huge benefits — both financially and operationally — through the implementation of a set of best practices, specifically tailored around the solution.

### Winning the Operators

The ability to capture data and provide feedback to the operators in real-time is the first part of an effective MES solution. This capability enables the shop floor to be more agile in their production and more responsive to in-shift issues that may occur, rather than waiting to review the achievements of the shift once the shift has completed.

When implementing an MES solution, it is often cited that the operators will be the hardest to win over. However, through careful messaging and thoughtful planning into showing operators what's in it for them, the converse is very often the case. Imagine an employee who has been with the company for 20 years; throughout his career he's telling his management what the issues are, but having no concrete evidence to back

up his claims, his words fall on deaf ears. Being presented with a solution, where through diligent interaction, his voice will be heard, providing a true moment of clarity for that employee.

The key to unlocking this latent knowledge of the equipment and processes is to implement a set of best practices that show the shop floor staff that not only will their voice be heard, but it will be acted upon. This starts from engaging with the teams during shifts, huddling at key points during the production day and making sure everyone can comment on the standard metrics the MES solution is driving them to review. Ownership of the process and a sense of being empowered to positively impact the direction of a shift drives engagement. Human nature pushes us to win; armed with the necessary information and the wisdom derived through years of experience, it becomes a very real prospect that every day will feel better than the last. Driving towards a culture of action, feeling like you can compete against your targets and your peers, and having the ability to move the dial and win ensures an MES solution becomes a mind-set rather than simply a software solution.

### Engaging the Executives

This engagement is also a two-way street. It is not solely the operators pushing information in and using it; the value can be realized at all levels of the organization and used positively to further drive employee engagement. Having management listen, review standardized data, and aligning the improvement activities to the company goals, shows that the data being collected on the shop floor is driving action throughout the business. It is impacting the working lives of the people being asked to record the information, further pushing them to engage and continue to collect value-add data. The data being collected should feed up the chain so that production supervisors, plant management, and executives also have a clear picture of production activities. Standardized, structured data can be used to provide a clear picture into why production targets are not being met and where the common issues lie. This knowledge feeds into strategic problem solving so the continuous improvement activities can be focused on the most compelling problems. Without targeted improvement and high accountability built on trustworthy data, companies find it extremely difficult to set their strategic compass and adhere to the targets they have set for themselves.

### Advancing with a Performance Coach

Best practices are founded on constant communication and the tweaking of the process to ensure the best use of resources. In multi-site, enterprise businesses, information sharing across business units helps to drive a set of standard best practices — whether it be the threshold target percentage of unknown downtimes, the periodic review of production targets to stay current and competitive, or simply the cadence for effective in-shift review. Often the introduction of a performance coach can assist in this best practice goal-setting. What works in one business may not suit another, and often the barriers go up when a consultant is parachuted in and dictates the best practice regime.

A performance coach does exactly as the title suggests — evaluates the working environment, assesses what will work, and then partners to coach in the best practices as opposed to forcing them to fit and assuming one size will fit all. This hands on, follow up activity ensures the best practices are built upon from the initial project, and evolve to ensure sustainability, focused energy, and a will to win. Continuing the path to manufacturing efficiency leads to success and ultimately to profitability.

## Conclusion

The wants and needs of the people in the organization change, but one level of the organization directly impacts the next. Pain flows through an organization; although people on the shop floor may feel removed from the top floor, it is through engagement and adherence to best practices that the top floor connects with the shop floor. Top floor may be the bean counters and the decision makers, but they also have influence and are often willing to incentivize as long as the correct measurements can be obtained. Only through standardization, best practice implementation, and operator engagement can this be realized. It is essential the shop floor buy-in and develop a culture centered on constant improvement and positive action.

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