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aspenONE MES Software Converts Data into Value for Operational Excellence

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Client Profile: LOTTE Advanced Materials, a subsidiary of LOTTE Chemical headquartered in South Korea, built ABS and PS plants in 1989, signaling its first major step into the market. Since then, the company has been expanding its business rapidly in a variety of categories including PC, solid surface and engineered stone, helping customers achieve faster growth and huge success. LOTTE Advanced Materials provides an integrated package of innovative solutions tailored for customers, incorporating the latest market trends and R&D for sustainable growth. Through its efficient operations and vast network it is positioning itself as a global chemical company.

Challenges and Vision: In the connected world companies are “drowning in data, but starving for information.” Manufacturers are deluged with all kinds of information, including a complex plethora of spreadsheets, reports, and numerous disparate custom applications and data from many different systems, sensors and equipment. Generally, companies find it challenging to manage and obtain valuable information from data generated from batch processes. What is needed are solutions that integrate information, systems and databases easily so that everyone from the shop floor worker to the business worker has a unified vision of the information and users can make intelligent decisions globally, or based on a “single version of the truth.”

The company’s vision is to pursue growth, operational excellence, and increase profitability by adopting leading digital solutions. LOTTE Advanced Materials was looking for a tool that would convert data into value to drive operational excellence. After a stringent selection process, they chose AspenTech’s aspenONE Manufacturing Execution Systems (MES) software to transform digitally and build a robust data analytics platform. In making this prudent choice, LOTTE Advanced Materials locks in a visionary software implementation roadmap to optimize business processes and operations.



Solution Implementation: This software helped LOTTE Advanced Materials to adapt quickly to changing processes and products, optimizing asset performance. Based on the ISA-S95 framework, aspenONE MES software delivers efficient data management, operational intelligence via rich visualization and analytics, and improved production execution—enabling the company to quickly identify and resolve operational issues. This deployment also includes the following aspenONE MES software products:

- Aspen InfoPlus.21 process historian software: A comprehensive realtime information management system. It forms the core of a manufacturing integration platform, uniting data across process control, manufacturing operations, and business systems. The software helped LOTTE Advanced Materials unlock asset value and benchmark performance across five plants.
- aspenONE Process Explorer software provides real-time insights via advanced visualization capabilities.
- Aspen Production Record Manager software enables easier analysis and production reporting for batch and continuous processes.

Tangible Benefits: aspenONE MES software has taken the company to the next stage of digital transformation by improving key business areas across the asset lifecycle. LOTTE Advanced Materials saw improvement in production execution as the solution enabled automated workflow and order tracking—facilitating improved consistency, better production tracking, and reduced errors. It provides LOTTE Advanced Materials real-time insights, which is timely, relevant, and can be shared. This helps the company to:

- Obtain an instantaneous view
- Quickly and easily configure daily workflows
- Enhance interoperability
- Turn data into knowledge
- Improve the bottom line