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CASE | **Mark and Identify Phase 2**

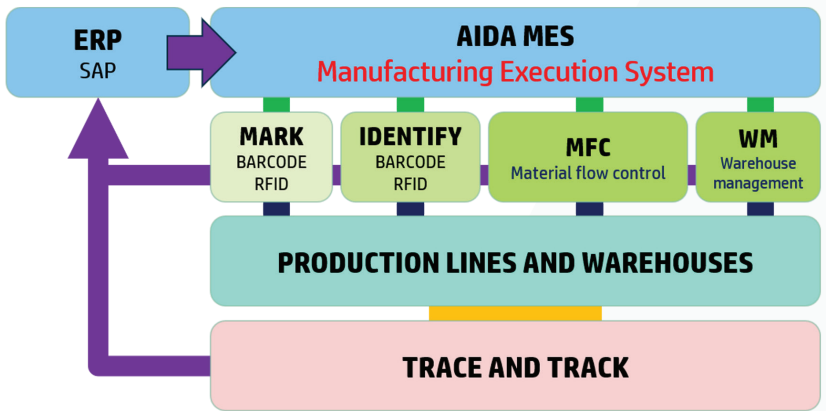
CLIENT | **British American Tobacco Croatia**



Codel was invited to provide, through the configuration of its AIDA Manufacturing Execution System (MES) and custom development, a Marking, Identification and Quality Control solution. This has now been in continuous operation (through multiple versions) for more than 15 years.

The second phase of upgrades / new features for the AIDA implementation at the Client's site included several challenges arising from novelty and scale.

REASONS AND DRIVERS



A new factory was built and all of the equipment had to be unmounted from the old factories and re-mounted into the new consolidated one. During this process, new machines were also added, so the project involved reconfiguration of existing equipment and the installation of new.

This segue allowed Codel to recommend industrial LAN, which was accepted, and so Codel installed industrial LAN using industrial optical ring architecture throughout. Initially, no other equipment except for AIDA and the printing system were connected to this LAN.

This project was a good opportunity to make other software upgrades too, so the AIDA – SAP integration was performed at the same time. A new palletizer was included in AIDA system too.

REVEAL THE HIDDEN FACTORY



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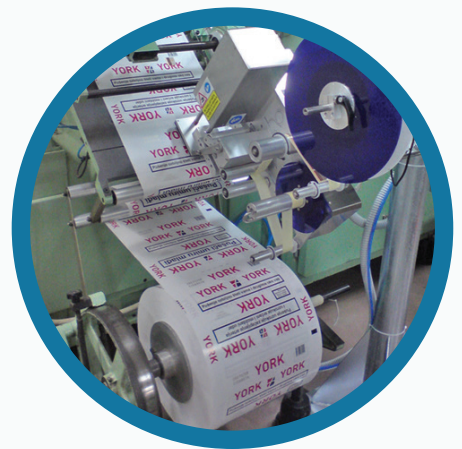
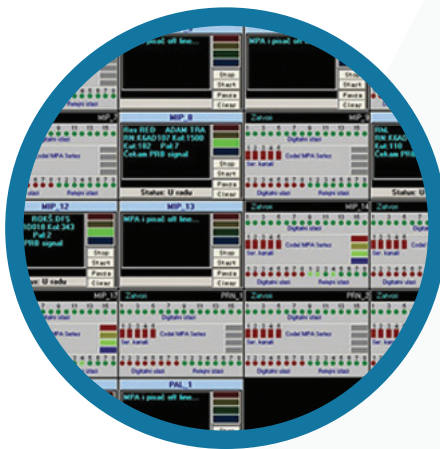
PROJECT IMPLEMENTATION



On each production line, a printer applicator and stand-alone label applicator were installed to mark and apply labels on two levels of packaging. This allowed the Client to use transport boxes without preprint, so that all product identification could be made using the label marking. For integration with the packaging lines, we used the Codel industrial and communication computer (MPA401). At the palletizing point, two printers were installed: an automatic and a manual one. AIDA was also connected to the Siemens PLC transport and palletizing system to get information about material on the palette through data exchange with PLCs. AIDA uploaded all the necessary data to these PLCs during packaging. The PLC system handled the data pertaining to the transport cases on the conveyers, so when the transport cases were loaded to the palletizer, this data was returned to AIDA for each palette. Using the information, AIDA and the palletizer possessed concerning all the material details, production orders, and production lines, AIDA was able to ensure that the transport cases from different production orders or different materials would not be packed on the same palette.

Barcode reading on the palletizer collected all Serial Shipping Container Code (SSCC) transport case codes, so every palette had information concerning all SSCC codes present on the palette.

AIDA was then able to send this information to SAP with the SAP data structure adjusted to accept item-level tracking.



REDUNDANCY OF PROCESS



There were two automatic palletizers working simultaneously, but manual palletizing points were provided at each production line, providing the possibility for manual stacking of the palettes in case that palletizers were off line. All SSCC codes present on the transport cases were scanned with mobile barcode scanners.

THE PROJECT ACHIEVED ALL TARGETS SET BY THE CLIENT

RESULTS

JUST IN TIME PRODUCTION

AUTOMATED MARKING AND IDENTIFICATION

SAP DATA EXCHANGE

MES