

Success Story



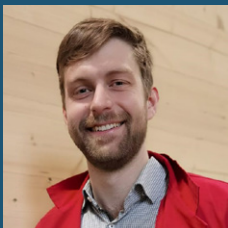
Photo: © MM Holz/Andreas Hofer

MANUFACTURING EXECUTION SYSTEM FOR CLT PRODUCTION



Client

Mayr-Melnhof Holz Leoben GmbH
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Austria



Martin Klingenbrunner
Head of CLT production
Mayr-Melnhof Holz Leoben GmbH

„ABF's Manufacturing Execution System offers complete coverage of the production facilities for the entire CLT production in Leoben. I appreciate the commitment, the smooth cooperation, the flexibility and the high level of solution experience of the ABF team.“

[!] INITIAL SITUATION

- ▶ A production and transport control system are needed for a top modern cross laminated timber (CLT) production line in Leoben, which is currently in setup.

CHALLENGE

- ▶ Coordination of material flow and panel processing through a wide variety of processing machines by using innovative interface technologies in a complex industrial environment.

SOLUTION

- ▶ Delivering of a complete package of software products from the **OneBase®** platform. Customised **OneBase®**MES, **OneBase®**MFT and additional individual developed software components are in use.

[+] BENEFIT

- ▶ Optimal control of the production processes. Efficient material flow control and optimised stock utilisation. Unified process visualisation for the efficiency of the whole CLT production line.

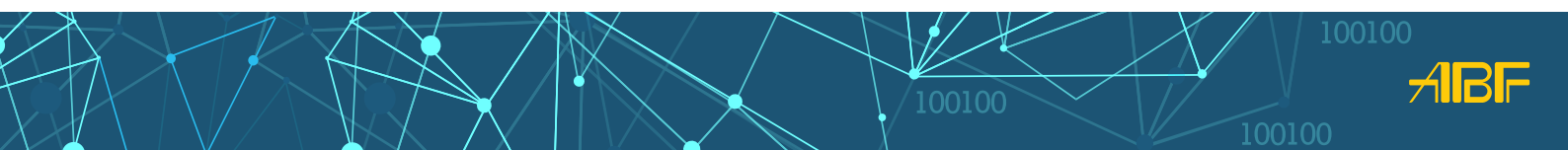




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Warehouse management



MES

TOP MODERN CLT PRODUCTION

Mayr-Melnhof Holz is one of the leading timber-processing companies and a driving force in the advance of cross-laminated timber (CLT), the building material of the future. To expand its production capacity, Mayr-Melnhof Holz decided to build a brand new cross laminated timber production line in Leoben.

ABF GmbH was chosen to deliver a Manufacturing Execution System (MES) for the new CLT production in Leoben. Fully automated material transports are ensured by the ABF transport control system.

The ABF system receives production orders from the ERP and controls the high-bay warehouse of lumber packages. A fully automatic shuttle with an integrated buffer storage gets this lumber packages and is feeding the two finger jointing machines. Additionally, the system records the processing steps of the planer, cross-cut saw, laying stations and presses for the production of cross-laminated timber panels. Also, it controls the material flow and the panel processing machines. The ABF software **OneBase**®MES additionally coordinates the supply of manual postprocessing in the carpentry, the sanding machine, and the panel turner. The system also handles material tracking for the manual cranes which are used for truckload picking.

OneBase®MFT, the material flow tracking system from ABF, ensures a smooth material flow in the automatic crane warehouse, which is used as an intermediate buffer store for CLT panels. This includes the fully automated, optimal crane control for managing storage and transfer cars on several levels.

Another important function of the system is the logging of operation and standstill detection, considering the plant and shift calendar. The „Overall Equipment Effectiveness (OEE)“ will be computed out of periodic recorded values. It will be used to continuously improve the performance and efficiency of the plant. For quality assurance temperature and humidity are also periodically recorded.

Due to the cooperation with ABF GmbH, Mayr-Melnhof Holz will be able to successfully realise this cross-laminated timber production line. Therefore, the CLT production capacity of Mayr-Melnhof can be increased from currently 80,000 m³/year up to 200,000 m³/year. ABF's Manufacturing Execution System ensures the optimal material flow and to achieve the desired production efficiency.

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