COPADATA do it your way R & D PROJECTS

LineMET

automatic model-based efficiency analysis of bottling plants

CHALLENGE

Bottling in particular and packaging in general is a cost intensive process in drinks and liquid food production. To increase the overall efficiency, production teams need to be able to quickly and precisely identify the deficiencies in this area of the plant.

GOAL

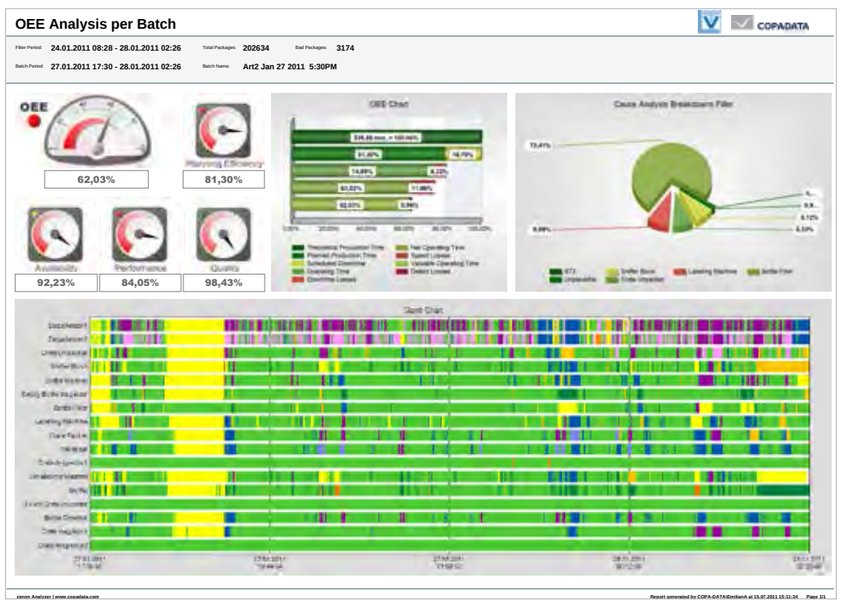
Following a previous project called LineMod, the research project LineMET was focused on developing the foundation for model-based analysis tools which should clearly relieve the causes of the efficiency losses across packaging lines. The algorithms for increased diagnostic quality, the coverage of wider use cases, the data consistency and the visualization and presentation of the results were important research areas. The result has to represent a good basis for industry partners in developing software solutions applicable for short and midterm in the Food & Beverage industry.

ZENON ANALYZER VISUALIZATION TOOL FOR LINEMET

In the frame of the LineMET research projects, the data is received from acquisition systems following the standardization offered by the Weihenstephan Standards. In order to describe the packaging line architecture, a modeling software is used. The production and the model data are processed by a diagnose algorithm which delivers the complete root cause analysis for every breakdown – especially relevant are the ones of the main machine, such as the filler.
zenon Analyzer was developed to overtake such analysis and visualization tasks. The LineMET diagnosed data were graphically presented in zenon Analyzer reports, together with other key information for plant optimization, such as: OEE indicators and charts, Gantt diagrams etc. This is a very good premise for further integration of the results and experiences from the LineMET research in future zenon Analyzer versions.

BENEFITS

Using the LineMET methodology will enable packaging and production managers to fulfill performance optimization initiatives in a much more targeted way. The clear and relevant statistics about the root causes of performance losses will make the prioritization of the improvement actions much easier – thereby ensuring maximum benefit at the lowest possible cost.



OEE Analysis Batch

PROJECT OVERVIEW

INSTITUTION
TU München, Chair of Food Packaging Technology
Fraunhofer Application Center for Processing Machines and Packaging Tecnology
MQM - Group of Applied Informatics - Cooperative Systems IX
http://lvt.wzw.tum.de

TYPE OF PROJECT
IGF research project
LineMET (AiF 16116 BG)
Period: 2009-2011

WANT TO KNOW MORE
Emilian Axinia, Industry Manager F&B
Ing. Punzenberger COPA-DATA GmbH
EmilianA@copadata.com
www.copadata.com