

SOLUTION FOR MANUFACTURING EXECUTION SYSTEMS



INNOVATION

ENGINEERING

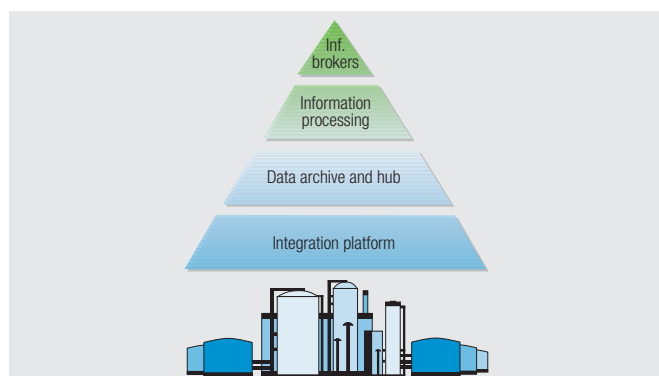
OPTIMIZATION

Standard Software **e-DiS**® – Enterprise Data Warehouse for Integrated Systems

The standard software application e-DiS® serves as an efficient platform for the realization of operational management systems and can be used in combination with existing third-party systems.

Our service

Are you an operational manager in the process industry and do you require detailed information about your production process? Do you want to view data from production, logistics and the laboratory in a comparative batch view? Do you have special requirements, for instance because your production takes place in a regulated environment? As part of a life science and polymers group with worldwide operations, we can offer you a standard software product derived from solutions in the realization of manufacturing execution systems (MES) for the process industry. Detailed knowledge and control over production processes are fundamental requirements for commercial success in the chemical and pharmaceutical industries. Bayer Technology Services therefore provides production plants with the option of recording, formatting and reporting production-specific data for efficient operational and process management. The standard software e-DiS® gives you a flexible modular MES that will support you in all aspects of operational management.



Based on a logical production data model, we deliver consistent integration solutions from process control to ERP. The e-DiS® library also serves as an add-on to enhance the functions of an existing MES from third-party suppliers. Numerous interfaces to PIMS, LIMS and SAP R/3 give you flexible options for the realization of functions in an existing heterogeneous system environment without excessive expenditure of time and effort. The standard software e-DiS® is particularly useful for the practical reporting of process data in batch and continuous operations. If needed, it can also be tailored to the requirements of a GMP environment.

The following software modules are available:

Information brokers:

- Production reports
- Performance reports
- Batch reports

Reporting functions for information processing:

- Calculation of performance indicators (KPIs, fingerprints)
- Batch comparisons in the form of charts
- Golden batch calculations
- Statistics including control charts
- Early warning systems, using traffic light colors
- Runtime charts of basic functions
- Facility occupation schedules
- Tracking of materials



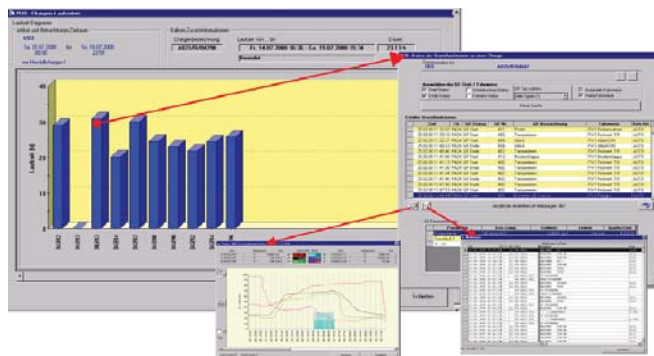
Bayer Technology Services
Powering Your Performance

Data model (relational):

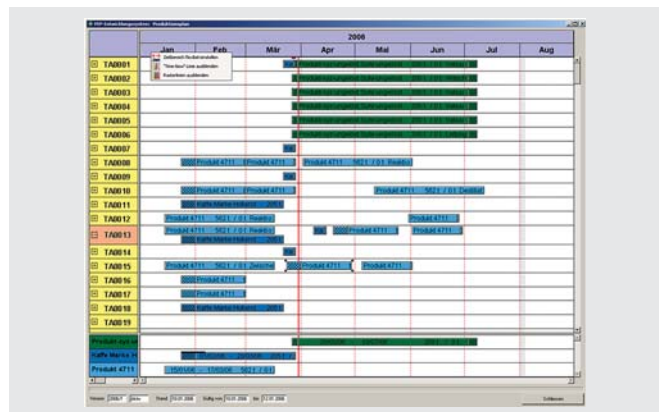
- Master, formula and order details
- Batch events
- Operator messages
- Process data and lab analyses

Integration solutions:

- Standardized SAP R/3 connectivity
- Large number of interfaces to third-party systems



Object-specific intuitive mouse operation



Product development planning

Your benefit ...

How is your production going at the moment? What is your current asset utilization? What raw material and product inventory do you have? How uniform were the results obtained in previous batches? How frequently have you had non-conformities in relation to quality KPIs and what were the reasons?

e-Dis® is a modular MES that will help you answer these questions. e-Dis® is particularly helpful in the early detection of trends and non-conformities as well as in reducing the amount of time spent on troubleshooting and in investigating the causes of non-conformities. It's a tool you'll soon find indispensable. The system benefits the entire operating team, from plant managers through production engineers to control room staff.

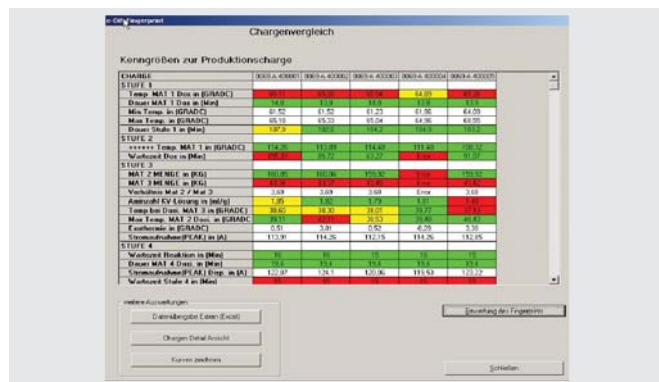
Our approach

Many years of collaboration between production managers and engineers led to the predecessor versions of e-Dis® which proved their worth mainly in a production environment. Based on our knowledge of operational structures and users' needs, we developed a standard software product that is modular in structure, allows the flexible use of individual MES functions and has an intuitive user interface.

References

Manufacturing execution systems based on e-Dis® have been successfully deployed at over 20 production units of the Bayer Group for several years now. The latest version of e-Dis®, based on .net, was set up for batch manufacturing at the end of 2005. An enhancement of an existing MES was realized at a multi-substance facility.

If you find these arguments convincing, it would be good to meet.



KPIs shown in traffic light colors