

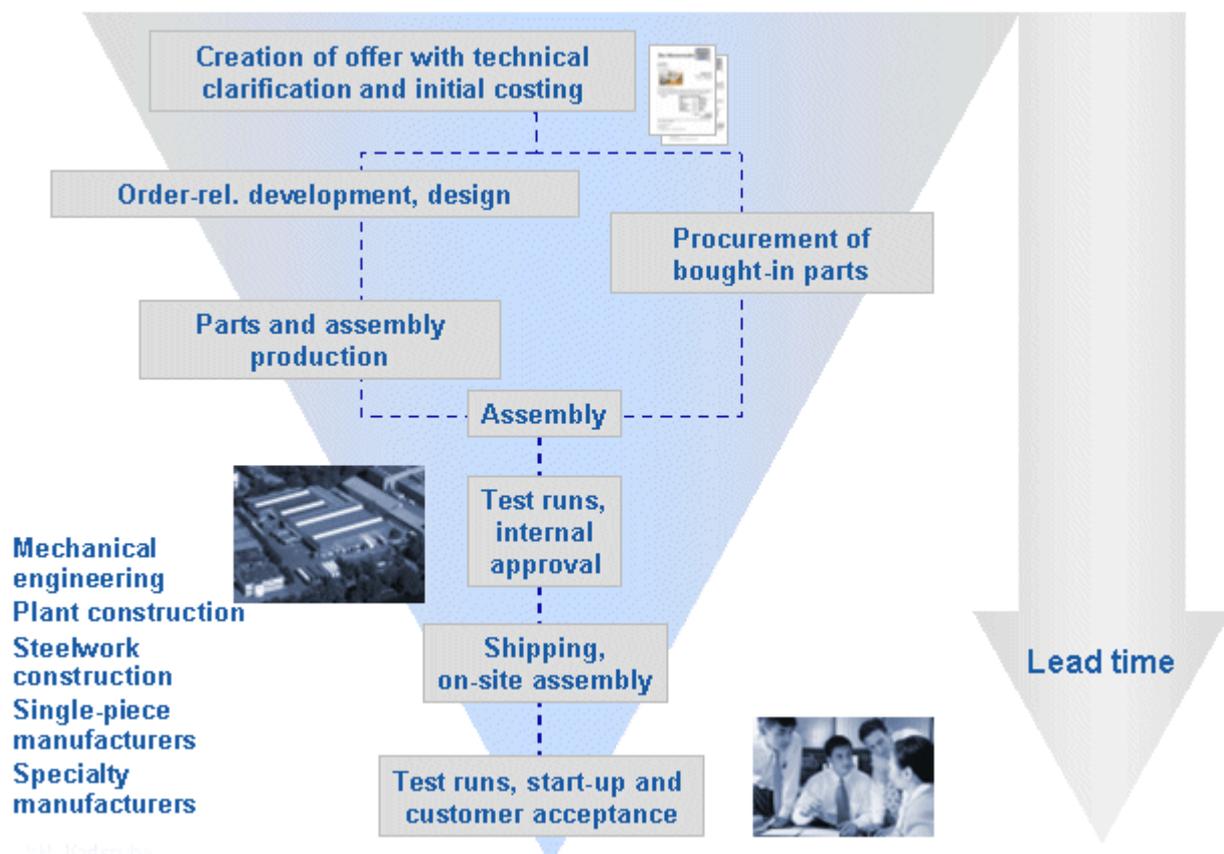
Use of PLANTA Project in Engineering & Plant Construction

Project characteristics

In mechanical and plant engineering, as in steelwork construction and one-off or special manufacturing, projects can be characterized as follows:

- Companies are organized on a project-oriented basis
- Company success is determined by a few complex individual projects or contracts
- Many aspects of an order are one-off
- Orders are long term large projects, combined with a low level of product development and a high proportion of design work
- It is possible to use a standardized approach for due-date and cost planning
- A high degree of coordination with internal departments and external suppliers is necessary

Planning and controlling the order from start to finish



Practical challenges

The typical weak points in projects processing include, for example, delivery date commitments made in the offer phase which have not been adequately checked. At that point, no information is

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available about the capacity situation in the departments involved, so that commitments can only be made on the basis of sales considerations.

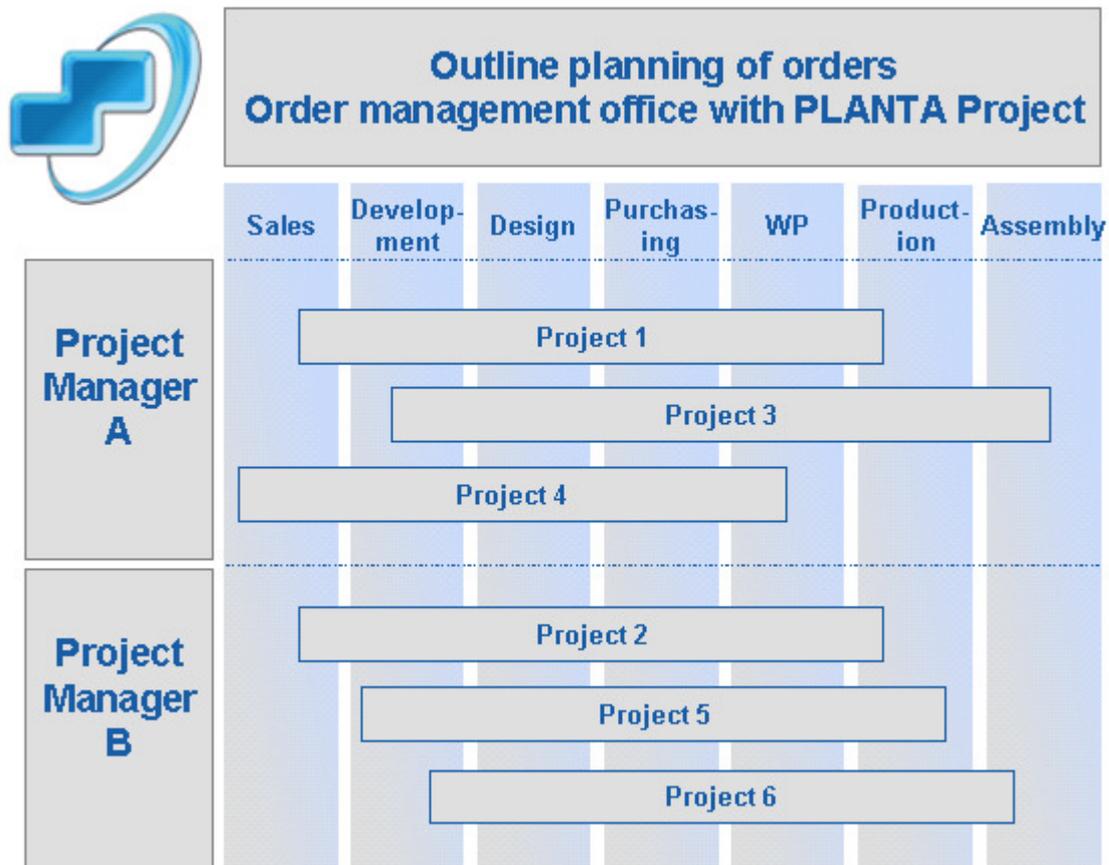
Another weak point follows the receipt of an order. The categorization of items into those which have been clarified and those yet to be clarified is started too late. Unnecessary due-date bottlenecks in purchasing are a consequence.

Another critical factor is inadequate due-date and capacity planning in the design phase. The result: Due-dates are missed, completion date postponements are reported late and incompletely to subsequent areas.

PLANTA Project features for manufacturing projects

Outline order planning

Particularly in the case of order-specific one-off and short run production, the outline planning of orders is of critical importance. The objective is to plan and control all the order-related activities to achieve short throughput times and close adherence to due-dates.



PLANTA Project plans and controls the complete order throughput, from production of an offer through to final acceptance. By taking into account not only production but also the areas involved before and after production, such as design and assembly, it is possible to optimize the overall throughput time, and it is the overall throughput time that determines the profitability of an order, not the individual areas.

Project organization

In numerous businesses in the plant and equipment manufacturing field, outline order planning is carried out by a central order management office. PLANTA Project supports this order management office in planning scheduled dates and capacity usage across areas of the business. All areas are given the information which they need, allowing them to carry out detailed planning for their own area.

PLANTA Project supports outline order planning by

- scheduled date summaries across all orders and important offers, with a traffic light presentation for scheduled date and cost overruns,
- outline networks which make it possible even during offer preparation to determine realistic delivery due-dates,
- networked barcharts for throughput scheduling across the entire throughput of an order,
- outline capacity planning across all the departments involved,
- graphical display of the order structure, and
- interface to/integration with ERP systems.

Detailed planning

For detailed planning purposes, it is possible to

- lay down area-specific milestones and key dates so that scheduled dates, capacities and costs can be planned locally,
- capture actual data locally for feedback reporting,
- refine the order networks, and
- generate department-specific schedules and capacity loading on the basis of hierarchical breakdowns of resources.

For the capture of actual data in production and assembly, PLANTA Project provides an interface to FDC systems.

Cost planning

Before the first price offer is submitted an offer costing is set up, allowing the estimates of internal project-related costs to be entered into the system. These costs form the basis for pricing.

A prerequisite for generating an offer costing is that, as early as the offer phase, the project structure must be essentially defined in terms of costing units. In doing this, use can be made of the project structure of a reference or standard order.

Costing

The planned costs are estimated by cost type at the level of the main modules, as defined by the project structure. In costing the planned costs for a project, costs are summarized over various levels up to the complete facility or machine. The costing can be carried out at any required level of detail, e.g. for individual machines, or across all the machines by functional groupings, e.g. for the electrical elements.

If the offer becomes an order, then during technical clarification a proposed budget will be developed, and more exact costing is produced at module level. Scheduled dates will be calculated, with estimates of resource usages, and the planned costs determined in detail. This will also take into account the costs of materials ordered, which are then fed into a purchasing system.

The reporting of actual data, such as hours worked, materials and external suppliers' charges, permits plan/actual comparisons which are always up-to-date, and hence ongoing cost-estimation for the order as it proceeds. On completion of the order, its costing history is then available.

Project analyses



PLANTA Project

For management, order-specific and cross-order information and analyses can be produced at the press of a button.

Your advantages

- High and uniform capacity utilization in design, production, and assembly
- Reliable information about order progress and the utilization of all areas
- High transparency and planning reliability
- Informing reports for those responsible for the orders in Sales and Technology, area managers, executive managers, and customers
- Flexibility for unplanned disruptions such as the unavailability of project team members