



# DETAILED PRODUCTION PLANNING WITH ORBIS



# Detailed production planning with SAP and ORBIS

## Feasible detailed production planning in real time

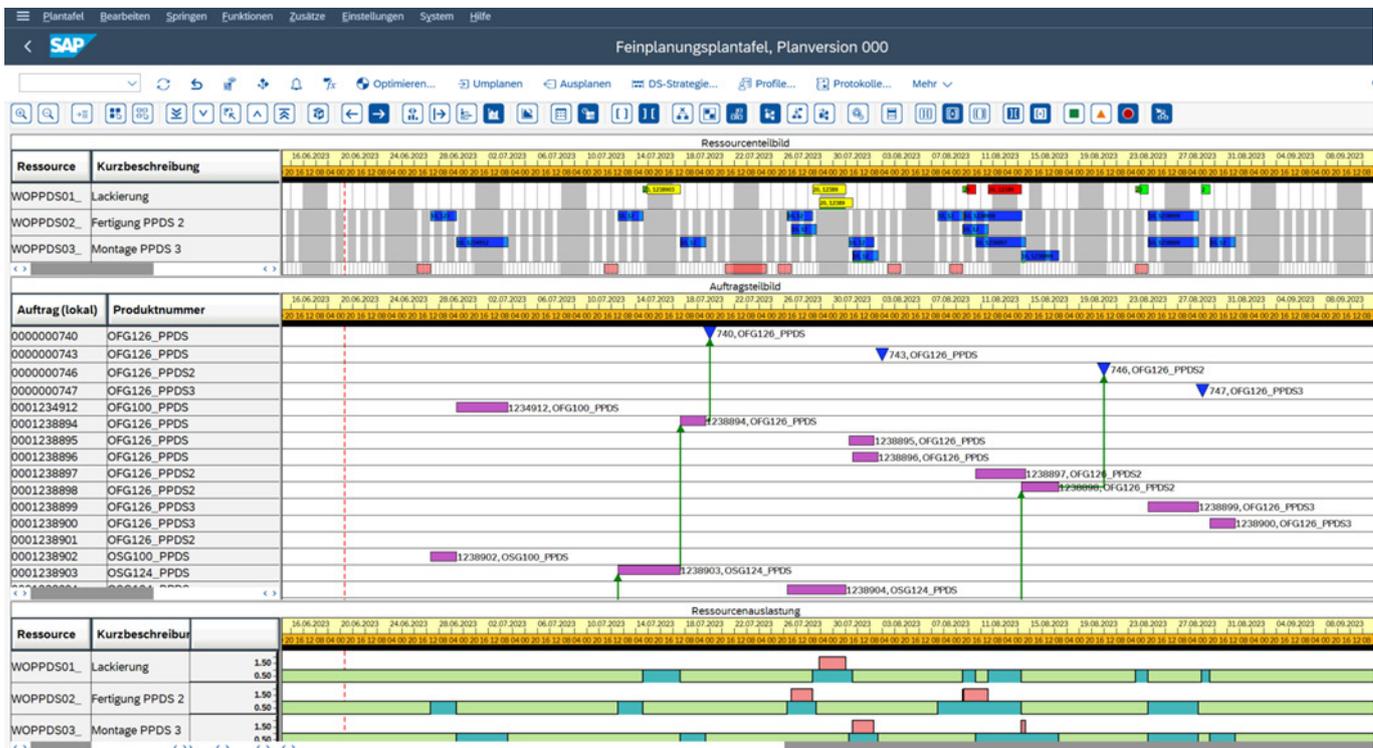
Sales and operations planning is coordinated and material requirements are determined. Now, the following questions arise on the supply side: What does the production plan look like? Which operation is scheduled when, and on which machine? What manufacturing sequence is ideal for the setup? Primary and secondary needs must be transformed into a feasible production plan that is consistent over multiple levels. The trick – above all else – is to maintain this feasibility and consistency over time despite inevitable changes. Both capacities and material availability levels must always be considered together, and it must be possible to quickly adapt plans to changing situations. If a delivery is delayed, for example, the production plan must be adapted over multiple levels. The solution is automated detailed production planning with a state-of-the-art CRP tool.

## Definition of detailed planning

There are two key tasks in detailed production planning: creating feasible production plans with a short-term forecast, and maintaining up-to-dateness by means of automated change planning. More precisely, backlogs are cleared quickly and easily, available capacities are taken into account (finite planning) and dependencies between BOM (bill of materials) levels are taken into account (multilevel planning).

## A few functions at a glance

- Scheduling against finite capacities
- Observing multilevel contractual relationships from the purchased part to the final product
- Scheduling, taking material coverage into account
- Backlog-free planning
- Simulation options
- Optimizing the setup at multiple levels
- Visualizing the planning situation
- Considering alternative manufacturing technologies
- Alert-based working



The main difference from classic CRP tools is the ability to establish and dynamically adjust relationships between operations and orders at the scheduling levels in question. Requirements and procurement elements are networked with one another by means of this “pegging”. These relationships are dynamically updated in real time as shifts take place across all BOM levels. There is no need for fixed order networks!

## APO-PP/DS and S/4 Advanced Planning

SAP enables detailed production planning in two ways. The PP/DS (Production Planning and Detailed Scheduling) module has been available as an add-on in the SAP APO package of solutions for many years. In SAP S/4HANA, meanwhile, PP/DS will be integrated as “Advanced Planning” in future. In both cases, detailed planning is indent with the rest of the ERP functions and data both bidirectionally and in real time. APO-PP/DS can also be implemented under R/3 before the transition to S/4. That way, you will already have taken the first step towards S/4 and will be able to transfer the PP/DS solution 1:1 to S/4 Advanced Planning. **PP/DS lives on in S/4!**

### Is it all too complicated? Do you not have enough high-quality master data?

Contrary to what you might expect, the planning approach with PP/DS or Advanced Planning makes planning significantly easier. Instead of going through the laborious, manual process of ensuring that the multilevel order structure does not completely turn into a chaotic cloud of orders, there are now easy-to-use planning tools available. The demands placed on master data quality are limited to correctly mapping production processes. There are expressly no particular processing time requirements that are maintained to the exact second. Ultimately, all previous IT tools were only approximate solutions that – due to technical restrictions – required time and inventory checkers, statistical waiting times and other concessions, making realistic illustration of production plans nigh on impossible. Even if only the basic PP/DS or Advanced Planning functions are used, significantly enhanced efficiency and better utilization of your production resources is guaranteed.

## Implementation

There are three potential implementation scenarios. They are as follows:

1. Are you currently using SAP R/3, and would you like to get started with PP/DS? The module can be implemented directly as part of SAP SCM (APO).
2. Are you switching to SAP S/4HANA soon? You can easily continue using SAP PP/DS in conjunction with S/4HANA (side-by-side) or migrate 1:1 directly to S/4HANA (Advanced Planning).
3. Are you already using SAP S/4HANA, and would you like to implement detailed capacity planning? PP/DS is already integrated into S/4 as Advanced Planning, and there is no need to install an additional component.

## ORBIS's expertise

ORBIS is offering you the expertise and a technical platform for implementing your process in the shortest possible timeframe. Following a modern, agile project approach, specific functions are already visible and affordably ready for use – even at the start of the implementation phase. You receive process and IT consulting services from a single source. No matter what stage your company is in at present – we offer consulting services relating to the entire value chain, regardless of the platform, and are happy to accompany you on your journey from R/3 to S/4HANA.

## The result

Using SAP SCM-PP/DS or Advanced Planning in S/4 means that only minimal effort is required to create and maintain a feasible production plan. This enables optimized utilization of resources that takes into account stock levels, capacities, deadlines and setup times both simultaneously and over multiple levels. This results in a **consistent, realistic plan** that helps to **cut inventory costs** and **increase on-time deliveries**, to name two examples.



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