DDMRP for SAP Integrated Business Planning

In the blog “SAP’s DDMRP Strategy”, SAP explains SAP’s DDMRP strategy, highlighting the DDMRP for SAP IBP solution co-innovated with Camelot ITLab as the first enhancement app for SAP Integrated Business Planning.

The Camelot DDMRP for SAP IBP solution is now available for SAP IBP 1705. The co-innovated enhancement app integrates seamlessly into the SAP IBP solution and enables SAP IBP customers to implement the DDMRP concept and model with SAP IBP.

The purpose of this document is to explain what DDMRP is and how the DDMRP for SAP Integrated Business Planning solution from Camelot is designed and used.

Demand-Driven MRP – the supply chain planning and execution revolution

Traditional material planning and control systems (ERP/MRP and distribution requirements planning systems) are systems in which detailed forecasts are used to tell suppliers and factories what, when and how much to supply, make and move. However, in today’s volatile business environment, these forecasts are always wrong and for most products by more than 50%. Consequently, the wrong quantities are sourced, made or shipped to the wrong places. As a result, stock levels are very poorly balanced and customers don’t get the service they want. To try and avoid such problems companies spend an inordinate amount of time expediting materials and products through their factories and supply chain, which is very expensive, wastes huge amounts of capacity, causes stocks to be far higher than needed and, very often, fails to solve the service problem. And even if it does, the cost and cash flow implications are enormous.

This is where Demand-Driven Materials Requirement (DDMRP) comes in. The DDMRP concept uses actual demand instead of error-prone forecasts to drive replenishment through a de-coupled supply chain, which is a genuine paradigm shift. The concept involves positioning the right quantities of stock where they are needed up and down the de-coupled supply chain and topping them up, as they are consumed, in a stable and repetitive sequence. In this way materials and products are pulled through the supply chain using a simple ‘make to replace’ and ‘ship to replace’ mechanism in line with actual demand without any need for expensive and disruptive expediting and intervention. As replenishment is driven by demand, not the forecast, it is always accurate so service-saving schedule changes are eliminated, supply is stabilized and inventories stay both right sized and balanced.

DDMRP consists of five core components

1. Strategic Inventory Positioning
2. Buffer Profiles and Level Determination
3. Dynamic Adjustments
4. Demand-Driven Planning
5. Highly Visible and Collaborative Execution

Camelot’s DDMRP for SAP Integrated Business Planning

Camelot’s DDMRP for SAP Integrated Business Planning helps customers to implement the paradigm-changing Demand-Driven MRP concept. Camelot ITLab has worked together with SAP to develop and establish cloud-based DDMRP extension capabilities for SAP Integrated Business Planning leveraging SAP Cloud Platform. The solution enables all five components of DDMRP.

DDMRP for SAP Integrated Business Planning consists of two major blocks: The first block is delivered as a SAP IBP Microservice and leverages the strength of the SAP Cloud Platform. It covers the “strategic inventory positioning” and “buffer profiles and levels” component of the DDMRP.
concept with the following key functionalities:

- Flexible calculation settings, methods and parameters for DDMRP buffer sizing through buffer profile segmentation, calculation horizons and input parameter selection
- Powerful simulation and decision support engine (including versioning) to simulate the effects of decoupling decisions on decoupled lead times, inventory and average inventory cost
- Supply and production network visualization tool, including visualization and setting of decoupling points, critical paths, child & parent products as well as bills of material.

The second block which leverages the strength of SAP IBP covers the “dynamic adjustment”, “demand-driven planning” and “visible and collaborative execution” component of the DDMRP concept with the following functionalities:

- Automated buffer level calculation and manual buffer level adjustments in the IBP data model
- Calculation of the DDMRP net flow equation including visualization of order spikes
- Monitoring & alerting functionalities to support execution with dashboards & custom alerts
- Preconfigured IBP planning views & business user roles to support the DDMRP process best
- Preconfigured FLOW Metric KPI’s and Dashboards in IBP SC Control Tower
- Complementary use and full integration with all SAP IBP modules and planning functionalities

The “DDMRP for SAP IBP configuration” is delivered as a Rapid-Deployment-Solution (RDS) which enables companies to start a pilot
As SAP IBP and SAP Cloud Platform are cloud-based solutions, the technical integration management is crucial. Camelot’s DDMRP for SAP Integrated Business Planning requires bi-directional integration into SAP ERP for master data and transactional data. Especially the part of transactional data is important as the supply order generation as part of the “demand-driven planning” component of the DDMRP concept is happening in SAP ERP with an enhanced MRP logic.

The solution works with one or multiple SAP ERP systems and also with SAP APO instead of SAP ERP for supply order generation.

**Related Documents**

Find out more about DDMRP:

- See the solution in demo in Camelot’s DDMRP for IBP video
- Watch development head, Franz Hero, in the video on DDMRP with SAP IBP
- Read the press release on the availability of the new joint solution DDMRP for IBP
- Get more details on the joint solution via Camelot ITLab’s webpage for DDMRP for IBP
- Read about SAP’s strategy in Mike Lipton’s blog on SAP’s DDMRP Strategy
- Get a better overview of the general DDMRP concept in the DDMRP introductory video (10 mins) from the Demand Driven Institute