



Mixed Mode Planning: Discrete, Process, and Lean in Microsoft Dynamics® AX 2012

Microsoft Dynamics AX 2012 provides a new way of controlling your business in what we call mixed mode planning.

Mixed mode planning gives you the ability to simultaneously handle the planning of traditional discrete production, purchasing, process manufacturing, and lean manufacturing within one supply chain. You can have kanban control in the assembly—where materials are sourced for the assembly area by production orders, kanban, transfers, batch orders, or any combination most suitable for the characteristics of your supply chain—and still have full visibility across supplies. This capability leads to optimized supply chain process and enhanced visibility in your supply chain.

With mixed mode planning, you can model your supply chain based on material flow, not on the limits of your software. Microsoft Dynamics AX 2012 will ensure that material flow will follow your models independent of the supply policy selected (kanban, production, purchase, batch orders, or transfer orders). You can select your overall strategy for how you want the product to be supplied independent of product structure.

ENABLING MIXED MODE PLANNING SUPPLY POLICY

Microsoft Dynamics AX 2012 mixed mode planning controls how a product is supplied and, based on the supply, how derived requirements (consumption of items from a bill of materials) will be issued. Based on order type, the system will automatically source materials to match the requirements.

- Supply policy can be defined on the product level or at any granularity needed to support your needs.
- Supply policy can be controlled by product, item dimensions (configuration, color, size), site, and warehouse.
- The default order type controls what order master planning will generate.

Regardless of how the supply chain is modeled, Microsoft Dynamics AX 2012 supports your supply policy mix. You can have production orders sourced from kanban, or a batch order requiring a product that is supplied by transfer, or that is supplied by kanban—any combination is possible.

Microsoft Dynamics AX 2012 will ensure that the material flow will follow the model.

The warehouse for picking material will be assigned dynamically at run time once the supply policy has been defined.

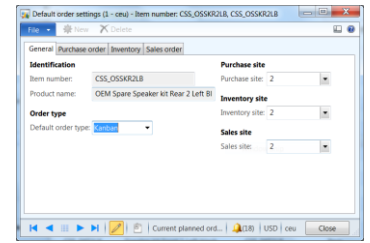
Typically, a kanban has a short life cycle, and therefore kanbans are not created for future dates. To maintain full visibility into the supply chain, we have introduced a new planning notion of a “planned kanban” that is used for calculating derived requirements and which ensures that the requirements are sourced based on the same logic as when the actual kanban is created.

The same logic is present for all other kinds of supply policy types, which means long-term materials planning will be based on the same logic that you expect to execute with the actual orders once production and supply are approved.

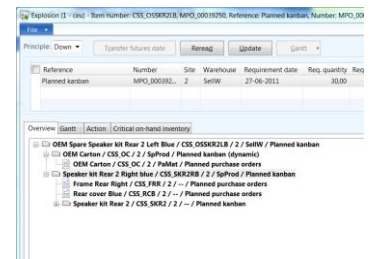
MATERIALS ALLOCATION CROSS-SUPPLY POLICY—RESOURCE CONSUMPTION ON BILLS OF MATERIALS

Resource consumption is a key functionality in Microsoft Dynamics AX 2012 for supporting dynamic assignment of a warehouse for picking materials based on supply policy (order type) and for easing maintenance of base data.

- Resource consumption requires that the warehouse from which materials are picked be assigned on the basis of how the product is supplied. This means that at run time the system will find the resources to be used for manufacturing, and based on those resources will find the picking warehouse.
- For work independent of supply policy, there is no need to change information on the bill of materials (BOM) if the supply is changed. For ad hoc changes, Microsoft



Supply policy



Mixed mode planning

Item	Name	Configuration	Site	Item class	Trade	From site	Approval
8004	Product main no 2000	00001_200	2	000	000	000	000
8004	Product main no 2000	00001_200	2	000	000	000	000
8004	Product main no 2000	00001_200	2	000	000	000	000
8004	Product main no 2000	00001_200	2	000	000	000	000
8004	Product main no 2000	00001_200	2	000	000	000	000
8004	Product main no 2000	00001_200	2	000	000	000	000
8004	Product main no 2000	00001_200	2	000	000	000	000

Item	Configuration	Site	Color	Warehouse	Resource consumption	Quantity	Resource unit	Contingency group	Item class
3001					4.0000	0	hr		000
3001					1.0000	0	hr		000
3001					1.0000	0	hr		000
3001					1.0000	0	hr		000
3001					1.0000	0	hr		000

Resource consumption

Dynamics AX 2012 will ensure that materials are sourced from the right warehouse based on the selected supply.

With Microsoft Dynamics AX 2012, you can fluently model your supply chain as it exists. There is no need to change base data to optimize your flow if over time you move part of the production from push-based to pull-based manufacturing, Microsoft Dynamics AX 2012 will assist you in this transformation.

Production control [AX 2012]

Use Production control to manage and track production activities. These activities include the following:

- Schedule production
- Track material and route consumption
- Register production feedback
- Track inventory transactions
- Track production costs

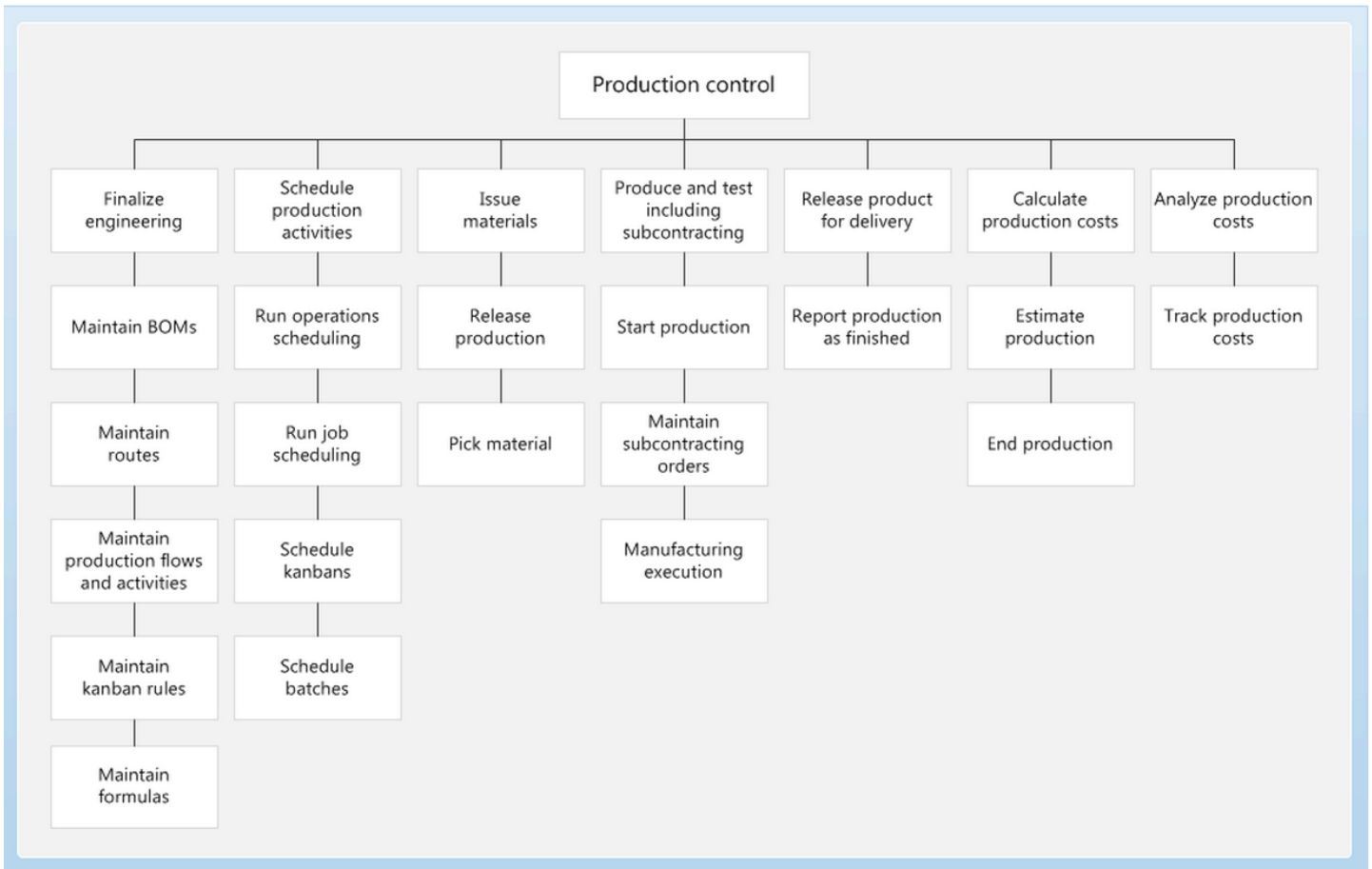
Production control functionality is a key component in mixed mode manufacturing. Production control provides the opportunity to manage your production activities by using multiple methods. These methods include using the following:

- Production orders
- Kanbans for lean manufacturing
- Batch orders for process industries

You can register production feedback by using manufacturing execution.

The Production Control information was copied from [TechNet](#). Dynamics AX has a plethora of information and tools available for end users. For more information reach out to Nancy or Mike at 214-347-7428 or email sales@clientsfirst-tx.com

Business Processes



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Production control at a glance

Important tasks	Primary forms
Set up production control parameters	Production control parameters (form)
Run job scheduling	Production - Job scheduling (class form)
Release production orders	Production orders (form)
Report production orders as finished	Production - Report as finished (class form)
Run end production	Production - End (class form)

Integration of Production control

Production control can be integrated with the following modules and Microsoft products:

- [Product information management](#)
- [Procurement and sourcing](#)
- [Inventory management](#)
- [Master planning](#)
- [Cost accounting](#)
- Microsoft SQL Server Analysis Services
- Microsoft SQL Server Reporting Services
- Microsoft Excel



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