Critical manufacturing
an ASM PT company

Modes

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scheduling

Scheduling Modes

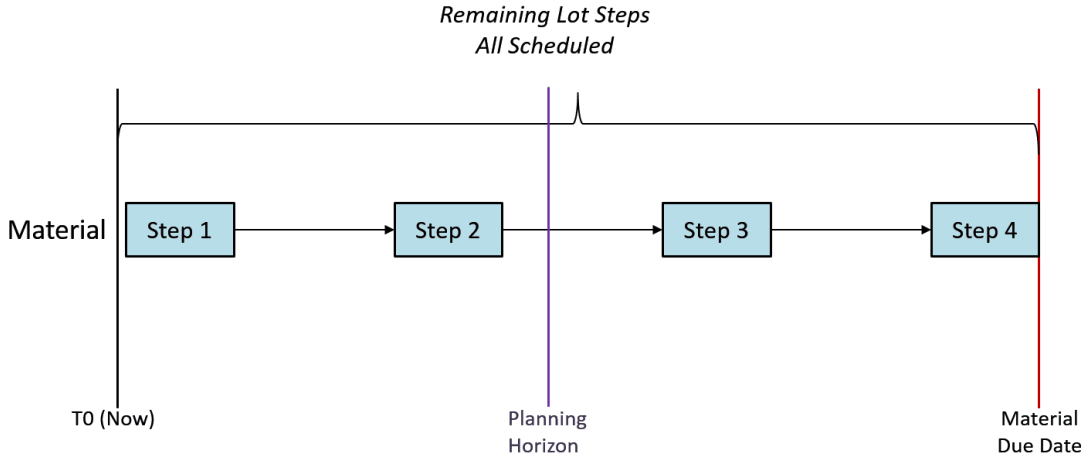
There are three schedule modes available in the system:

- Operational Accurate Mode
- Operational Fast Mode
- Planning Mode

> **Info**
>
> The schedule mode is chosen at the Schedule Scenario, when it is created. It is therefore possible to have Schedule Scenarios within the same Schedule with different modes.

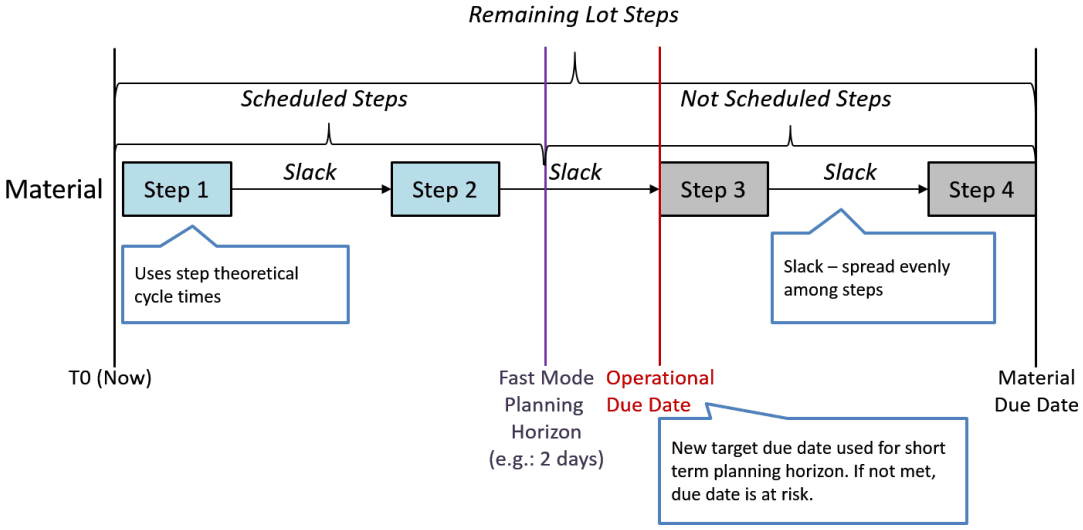
Operational Accurate Mode

The operational accurate scheduling mode, schedules all the remaining Steps for the (real) Materials based on their current position in the Flow Path. As long as one of the Jobs falls within the planning horizon, the system will try to schedule always all the Jobs for the Material, even if it falls beyond the Planning Horizon.



Operational Fast Mode

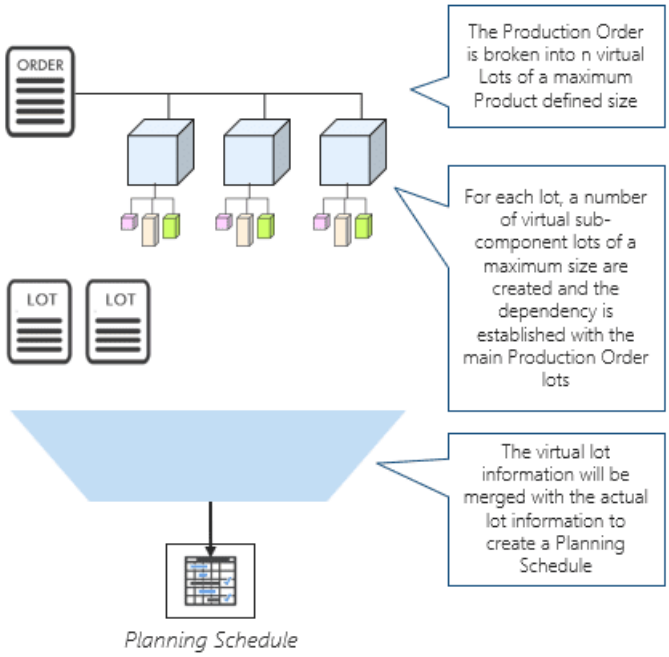
The operational fast mode reduces the number of Jobs to be scheduled by the scheduling engine thus speeding up the scheduling generation process. It assumes that the schedule is re-generated periodically and often, so that it is only necessary to schedule the Jobs for the short term. It calculates the theoretical process times for the Material's remaining steps, it divides the available slack between all the remaining Steps and then schedules only the Jobs that fall within the Fast Mode Planning Horizon.



Planning Mode

The planning mode aims at taking a longer term approach to scheduling, taking into account not only the existing WIP in the form of Materials in the shop floor, but also considering the existing demand, in the form of Production Orders, which have not yet been materialized in the shop floor. For each Production Order which has the property Include in Planning set to true, the system will take any Materials which are not allocated to a Production Order and used them to fulfill the material requirement (if the Product's property Use Stock in Scheduling is activated); if there isn't enough quantity, then it will create a number of virtual materials according to the Maximum Material Size of the associated Product, which will be scheduled in the same way as a real Material. Furthermore, if the Production Order also has the property Include in BOM Explosion activated, and there is a BOM of Scope materials (that is, a BOM for components) which is associated with the BOM context of a Step within a Flow of one of these virtual materials, the system will again take any unassigned quantity for that Product, that is, quantity which isn't reserved through a Material Dependency (if the Product's property Use Stock in Scheduling is activated); if there isn't enough quantity, then it will create as many virtual materials for each BOM Product (component) as necessary to supply this internal demand.

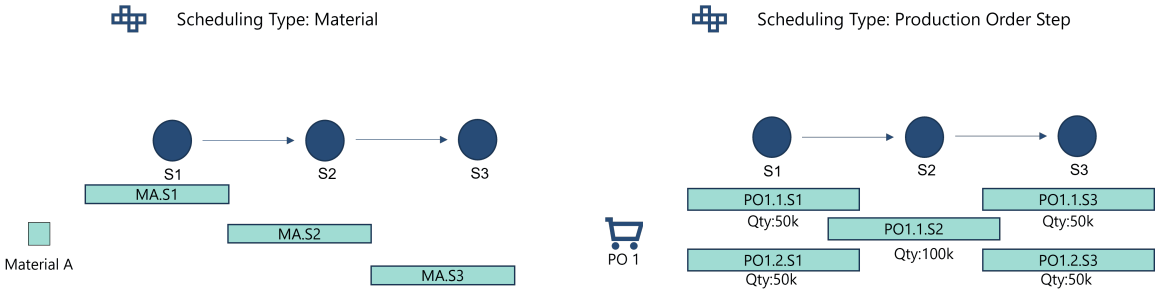
As the planning mode deals with the future state of the shop floor (as it schedules materials which do not yet exist in the shop floor), it is not possible to Release a Schedule Scenario with the type of planning schedule. Instead, it allows you to see the fulfillment of present (Materials) and future (Production Orders) demands, without affecting the system. To materialize the plan shown in a Schedule Scenario, you should start all the involved Production Orders (for more information, see Production Order), and then create either an operational accurate mode or an operational fast mode Schedule Scenario, which can be released.



Scheduling Types at Product Level

Depending on the need to break down a single Production Order into separate Production Order Steps, two different Scheduling Types are available in the system and can be configured at the Product level:

- Material - The scheduling engine will take the existing work in progress in its current form and schedule it appropriately.
- Production Order - The scheduling engine will set production quantity targets per Production Order Step, schedule them to Resources and track the quantities.



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