Critical manufacturing
an ASM PT company

Replanning

11.2

February 2026

scheduling

Replanning

Re-scheduling is an essential process. As both costumer demand and shop floor conditions can be quite volatile, plans quickly become obsolete; this is made even more significant by the fact that scheduling is an operational planning system, considering all the entities present in the shop-floor. As such, whether done on a regular basis to accommodate new demand and smooth out small, long term plan deviations, or done also on a contingency basis, to resolve major disturbances (Resource breakdowns, for example), Re-scheduling is a necessity.

However, it is important to take into consideration that it may not be possible to put a new plan immediately into practice. There might be delays caused by issuing the new plan, for example, in retrieving the necessary components, durables or setting up the Resources. In addition, the planner may have decided to close the plan for a certain period, not being possible to change that portion of the plan in the schedule.

As such scheduling gives the option of fixing the initial part of the planning horizon to what was set in the original plan by using a Frozen Period. This is defined by default in the Schedule but can be overridden in the Schedule Scenario level.

For every Schedule Scenario Job that falls within the horizon defined by the Frozen Period, the system will attempt to preserve the original plan, by:

1. Attempting to keep the Resource allocations the same as they were in the homologous Schedule Scenario Jobs.
2. Attempting to preserve the sequence of Schedule Scenario Jobs for each Resource.

However, this approach of attempting to preserve part of the original plan may collide with several common situations:

Delays

Whenever one or more Schedule Scenario Jobs were scheduled to be executed at a time which has, by the time of the new Planning Start Date, already passed. As these Schedule Scenario Jobs still need to be executed, scheduling will move them to a feasible moment (after the Planning Start Date). If a Frozen Period is defined, the system will attempt to preserve the sequence of Schedule Scenario Jobs for each Resource; as such, the Schedule Scenario Jobs with the most delay will be the first to be planned.
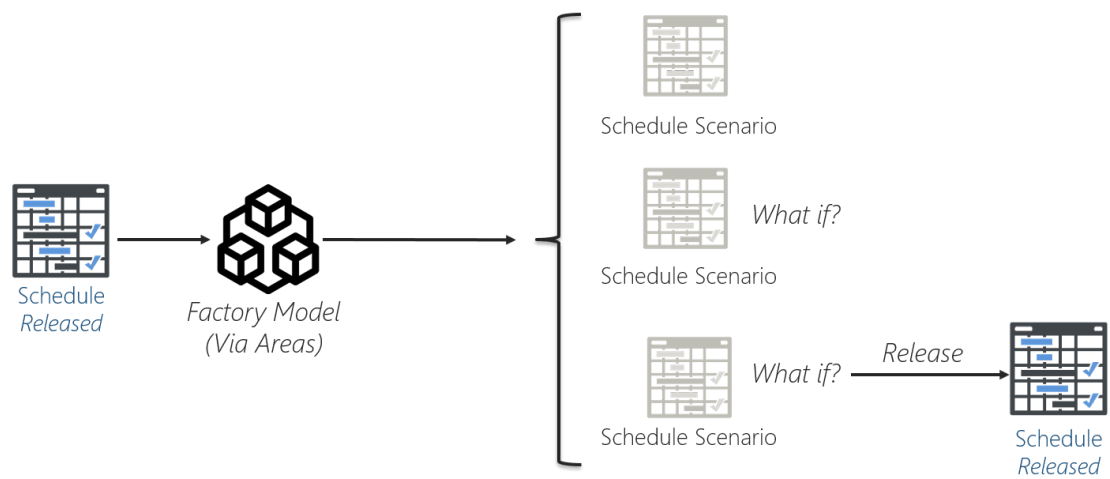
Anticipation

Should one or more Schedule Scenario Jobs that were planned for after the new Planning Start Date already have been executed in the past, then there will be periods of availability, where the corresponding Resources will be in a standby mode. In this case, and should the Frozen Period include these moments of availability, it will be assumed that resource capacity should be utilized to its fullest, and scheduling will attempt to occupy this excess capacity by anticipating other Schedule Scenario Jobs.

Capacity Changes

Major disturbances, such as, for example, a Resource breakdown, which renders part of the schedule caught by Frozen Period infeasible. This will result in the normal re-scheduling of the affected Schedule

Scenario Jobs.

Schedule
Released

*Factory Model
(Via Areas)*

Schedule Scenario

What if?

Schedule Scenario

What if? → *Release* →

Schedule Scenario

Schedule
Released

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