



FIRST TIME RIGHT

EXECUTIVE BRIEFING

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Mastering Master Data: The Culture of First Time Right.

APO behavior and performance is highly dependent on a complex master data ecosystem that must be maintained at a high level of quality.

APO often replaces processes and tools (Excel) that focus on the outputs by nature—the planner analyzes a lot of data but ultimately plugs in the answers they determine best for the circumstances. Like other supply chain tools, however, APO wants to follow a specific method—the planner models the situation and APO comes up with a calculated response. The engine that drives SNP, for example, actually tends to fight back if a planner modifies planned work orders in contradiction to the modeled demand, inventory targets, or capacity.

These automated calculations are driven by a combination of transactional (such as inventory, purchase orders, and production orders) and master data. Master data covers everything from foundational SAP setup parameters to relatively changeable items like BOM scrap rates, routing lead times, and attach rates.

Well, this sets a much higher bar than Excel. Root cause analyses of many—if not most—APO performance or operational issues leads to gaps, errors, or disparities in the data. While transactional data has its own set of sometimes thorny issues, it's master data that challenges both the mindset and the capabilities of legacy planners, who are being asked to think and work in novel ways and move from a world of concrete, tactical decisions to an abstract, model-driven environment.

Model-based thinking isn't for everyone.

One of the realities of moving to APO is that it embodies planning concepts that may be familiar in general terms to your planners, but the application of these concepts is far more rigorous than the informal adherence that is usually a hallmark of manual planning. For example, using A/B/C classification is a widely used best practice to assign target service levels and derive consistently useful safety stocks across large SKU populations. However, one-size-fits-all methods are very common in legacy environments due to the sheer workload of individual item analysis when classification schemes were not part of the available toolset.

These tend to survive the transition to the APO world, with consequent less-than-ideal results, simply because the planners' mindset didn't consider the possibility of structures that could organize and simplify the problem.

A central tenet of managing master data is that it is used to deconstruct impossibly large populations into conceptually aligned subsets that are more manageable. This sort of abstract thinking is atypical for many experienced planners, and it tends to intimidate when they first encounter it. Planners need time to get used to thinking in model terms and they need experienced coaches who can bridge theory to concrete examples that will help tactically-oriented people "get it".

The 5 Lenses of Master Data



People: Is responsibility for data authorship and controls clear? Have you sufficiently resourced a function upon which APO is highly dependent?

Adopting APO *necessarily* entails additional resources and skills for managing master data—partly because there is significantly more of it, and partly because there is no latitude for gaps or errors. Organizational and individual responsibilities for data quality and validity are essential to clarify; otherwise, corrective actions descend into finger-pointing exercises.

Consider new, different roles separating transactional planners and “planner-modelers” where responsibilities to *define* and *manage* key data elements, such as lead times or manufacturing yields, shift to the modelers. These new roles—part detective, part police officer, and part engineer—are consistently the unsung heroes of high-performing APO environments. To help institutionalize controls on master data, many companies implement new, separate Data Governance or Master Data Management functions in the organization, often as part of a CoE. The only sure thing seems to be that the old organizational setup won't have a good home for effective Master Data Management.



Process: Are your processes that *feed* the planning model as thoroughly built out as the planning process itself?

Most people think of supply chain processes as the planning procedures themselves. With APO, however, the outcome is dictated by the state of data *before* you run the engine. Planners used to digest a bunch of data develop plans and schedules that responded to the situation as they interpreted it. With APO, their job changes—they need to validate APO's recommended plans and production orders, but the less they actually need to modify outputs, the better.

This means they must shift focus to pre-planning processes that stage the data to be used in the plan. This master data dictates how the engine will react, with everything from lead time assumptions to safety stock levels. These are data elements that need management processes of their own to guarantee that they are up to date with current reality and reflect operating strategy. Collectively referred to as Master Data Management or Data Governance processes,

they require a rare combination of functional knowledge, operating strategy awareness, and a controls mindset.

The looseness of legacy planning meant planners often made in-line adjustments to plans and schedules. Manufacturing padded lead time? No problem—add a few more orders in the window. Scrap rates understated? Relax—just pump up the purchase order a bit. Transfer this mentality to an APO environment and planners quickly find that automation creates more work, not less. Master data must faithfully reflect realistic values and drive the automated answer to match the “right” one.



Technology: Are you providing robust management and integrating support for master data?

It is routine in APO implementations to focus too much on post-run alerts and analytics for planners and too little on pre-run data checks. It’s not glamorous to check for orphan BOMs and stale route priorities, but in fact they do far more to promote good first-time results than alerting planners to dubious plans that should have never been computed in the first place. Using the *planning run itself* as your main QA gate for data quality is a waste of resources and precious time.

The tightly integrated nature of APO and ECC in most SAP environments can make it challenging to monitor data quality in an integrated way, but tools exist that can efficiently work across multiple sources and points of origin, and maintain comprehensive visibility and controls over data bound for APO. These overlay tools enable comprehensive and efficient in-line validation of master (and transactional) data, but they are often overlooked with resulting serious gaps in effective technology support behind APO.



Policies: What does it really mean to pursue First Time Right?

The culture of many companies is fairly forgiving of poor governance in data management, which is often not really even recognized as a “thing.” Most companies are in denial about the role of information in effective cross-functional operations, and complain about data quality while turning a blind eye to the obvious—it has to begin at the source. It’s easy to let an overworked engineer or analyst off the hook, but it avoids answering the questions that can’t be wished away—if not them, then who? If not that way, then how?

An astonishing number of APO implementations include a “data cleanup” thread, because the status quo is a mishmash of missing, stale, and misinterpreted data, but what’s even more amazing is how few implementations include any genuine, permanent re-thinking of data definition, management, and governance—which of course guarantees that the debris and clutter will start to accumulate again, even before the “cleanup” declares victory.

Data cleanup doesn’t have to wait for anything. Do yours *before* your resources get diverted to the nuts and bolts of APO adoption. Too late for that? Zero tolerance for data quality

problems is still a deal breaker for APO success, so your leadership needs to lead, and in an uncompromising way.



Metrics: Are you on top of your data quality, suitability, and sufficiency?

Useful measures of Master Data Management performance come in two types. The first is preventive—direct testing of master data feeds to detect and track levels of data quality that are detectable and have a known effect on plan output. Data such as SKUs with no BOMs, zero lead times, blank ABC categorization, and other visible errors are easy to look for; others can be more subtle but still respond to thoughtful tests of validity. The second type of measure is after the fact—post-plan-generation monitors designed to alert planners to the presence of exception results that are potentially caused by master data flaws. Although it's preferable to catch issues before they influence a plan run, planners still need tools to evaluate the impact of master data values on plan output, because their ongoing mission is to get the system to work for them, not to repeat the same repairs on its output cycle after cycle. Root cause analysis and feedback into the model is essential to get the system and planners into sustained alignment.

What stands between you and mastery?

Companies rarely have an organizational starting point for making a quantum step up in master data quality. *It's almost always someone else's problem.* Sometimes the role of a third party is helpful to bring the battling organizational components together and to the point of breakthrough recognition of a new, essential path forward.

Spinnaker is an atypical service provider, uniquely qualified to help companies acquire new insights, depart from their internal traditions, and take novel steps forward to better leverage their APO technology. Eventually, pain becomes gain.

About the Author

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About Spinnaker:

Spinnaker is a supply chain services company that helps clients grow, manage risk, reduce costs, and improve customer service by developing world-class supply chain capabilities. Our services help clients develop the right supply chain strategy for their business challenges and implement the process and technology solutions to improve Demand/Supply Planning, Procurement and Sourcing, Logistics and Warehousing, and Reverse Logistics business performance. Spinnaker offers a unique service delivery model that combines the strength of deeply experienced management and technology consultants with a seasoned team of business process outsourcing (BPO) and 3rd-party logistics (3PL) professionals. Founded in 2002, Spinnaker has offices in Boston, Columbus, Denver, Houston, Memphis, Pittsburgh, London, and Singapore.

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