TFD Global
TOOLS FOR DECISION

Tempo

The Next Generation Inventory Optimization Tool

Inventory planning is a complex discipline demanding the most sophisticated algorithms to ensure that the right inventory is acquired and located at the right place. Until now, all spares optimization tools have assumed long-term, steady-state scenarios, which remain unchanged forever. In the real world, the situation always changes as basing, activity levels, support arrangements, and system configuration change.

Evolved from the proven VMetric optimization engine, Tempo takes account of both predictable changes in hardware and foreseeable changes in operating and support scenarios. Tempo is the first and only tool for developing optimum spares scales to meet fleet availability targets where: operational usage or fleet disposition changes over time through fleet expansion. It can also accommodate re-basing, re-role or run-down; equipment design changes over time because of obsolescence, modifications, upgrades, or reliability improvement programmes; and support arrangements changing over time as maintenance, repair policies, contractors, performance and price evolve.

BENEFITS OF TEMPO

- Brings a time dimension to spares optimization by explicitly handling inevitable changes in scenario
- Avoids the errors implicit in steady-state models, including over-stocking of life-limited and long-lead time parts
- Maximizes ROI and avoids waste from market-driven obsolescence
- Optimizes procurement timing to match fleet build-up, re-basing and run-down for lowest cost
- Deals explicitly with time, eliminating the drudgery of hand-made multi-period calculations

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ASI Andromeda SYSTEMS INCORPORATED

Tempo

Tempo assists in making logistics decisions affected by: fleet build-up and run-down, obsolescence and technology refresh, the impact of reliability improvements, planning for ageing systems, long lead-time versus short lead-time buys, PBL incentive schemes with complex metrics, or future program changes such as Ao targets, operating hours and basing.

Features
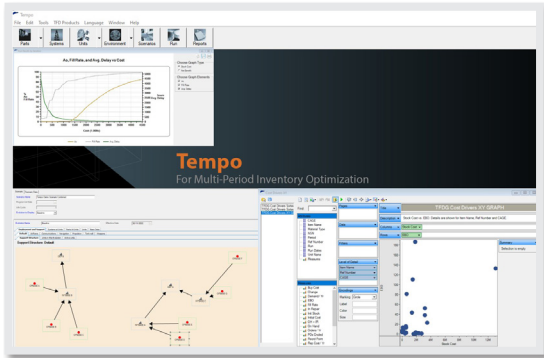
- Fleet build-up and run-down

- Obsolescence and technology refresh

- Reliability improvement impact on spares solutions

- How to spare aging systems

- Long lead-time versus short lead-time buys

- PBL incentive schemes with complex metrics

- Future program changes such as Ao targets, operating hours and basing

Tempo allows you to:

Capture changes to key variables over time including the predictable changes to hardware attributes such as reliability and unit price, and the foreseeable changes to fielding scenarios such as fleet size and usage rates.

Maintains a complex set of calendars to separate and account for specific points at which inventory solutions are required. These include budget cycles, delivery schedules phase-schedules, reliability growth or wear-out, and Mean Technological Life (MTL) by class or item.

Consider the specific time period over which a spare part can be used which might be less than the whole system life because the procurement or repair lead times delay the delivery of benefit from a spare; approaching the end of system life has the same effect. Obsolescence or MTL also shortens the usefulness and Return on Investment of a spare.

Evaluate each increase in stock against hybrid and multiple performance targets to accommodate complex PBL contractual frameworks that could include targets for operational availability, fill rate and delay times.
Utilize an enhanced analytical engine that uses an economic present value 'bang for buck' ratio for marginal optimization.

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Relieve the analyst of drudgery and reduces error-prone analytical tasks. Currently, analysts using steady-state models must split scenarios into multiple time-slices, one for each fixed condition, and load results from the last run as inputs to the next. As the volume of change increases, complexity, workload, time and the probability of error grow exponentially, and quick-turnaround analysis becomes increasingly problematic.

Deliver new time-based analytical outputs showing the comparative inventory and performance results through time to support the analyst.

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