APT
ASSET PERFORMANCE TOOLS

APT-LIFESPAN

EQUIPMENT LIFE CYCLE COST/RISK OPTIMIZATION

Buying new equipment: lowest cost or best whole life value?

How do you identify the optimal time to replace aging assets?

An analysis of four electric motors showed that *delaying replacement* would cost **£30k** in total ownership costs & risks

Good asset management involves making the best value capital investments, based on whole life cycle cost, than operating and maintaining the assets to the optimal blend of performance, risks and costs before refurbishment, replacement, upgrade or disposal. Taking such an optimized whole life cycle view is hard, however, when cost pressures and future uncertainties favour short-termism.

APT-LIFESPAN helps you to quantify the effects of short- and long-term options, and convert all life cycle assumptions, risks and performance aspects into a common financial view. It is a unique, world-leading decision-support tool to identify the best mix of capital investment, operating and maintenance expenditures, residual risks and the optimum life itself. It exploits whatever hard data or range-estimates and uncertain assumptions that are available (using instant 'what if?' facilities), and calculates the optimal equipment replacement timing, the merits of technology upgrade, the net value-for-money difference between design options and a host of other common asset management decisions.

APT-LIFESPAN

For existing assets:

- Calculates the optimal renewal timing or decommissioning/disposal point.
- Quantifies and evaluates the costs, benefits and risks of alternatives such as ongoing maintenance, like-for-like renewal, life extension/refurbishments, technology upgrades and other options.

For new asset acquisitions:

- Evaluates the total present value impact of capital investment and future operating costs, reliability and risks, performance, maintenance costs and life expectancies.
- Provides a structured way of evaluating equipment purchase options based on whole life costs and value, even when available data is poor.

Proven Results

Developed by a multi-industry collaboration of major organisations, backed by the UK and European Governments, APT-LIFESPAN is a field-proven method that works in a wide variety of industries, countries and cultures. Blue chip organisations in the oil industry, electrical and water utilities, railways, chemical and other sectors have used it to evaluate strategic investment decisions in new facilities, and to determine (and demonstrate) when aging infrastructure should be replaced.

Best practice methods in life cycle cost-based decision-making have been shown to save up to 30% of the total costs of ownership. APT-LIFESPAN helps you make these savings.

APT-LIFESPAN

APT
ASSET PERFORMANCE TOOLS

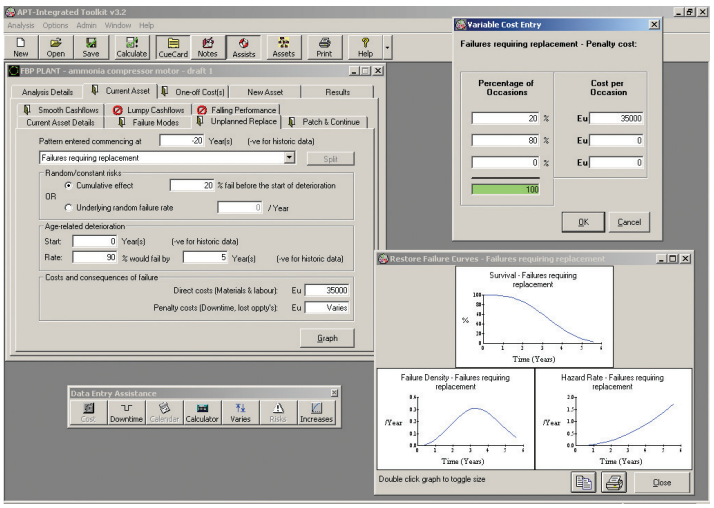
APT-LIFESPAN

EQUIPMENT LIFE CYCLE COST/RISK OPTIMIZATION

The decision-support tool for asset life cycle decisions

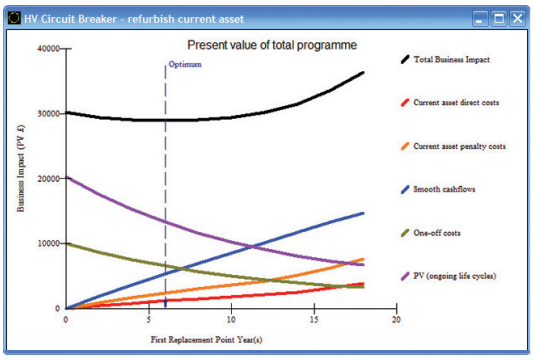
APT-LIFESPAN models

- Acquisition and installation costs: direct and indirect, lumpsum or variable, hard data or estimates.
- Sophisticated reliability and risk patterns: multiple failure assumptions, any mix of 'infant mortality', random, deterioration modes, 'patch-and-continue' options and forced replacement risks.
- Failure consequences: lump sum estimates or variables for direct and indirect costs.
- Performance patterns: deterioration profiles, spare capacity options, fuel costs etc.
- Life extension or shortening effects of maintenance, refurbishments, damage mechanisms and modifications.
- Comprehensive 'discounting' calculations on all cash flows and risks (NPV & EAC).



APT-LIFESPAN delivers

- The true optimum equipment life; based on total business impact of through-life expenditures, performance, risk exposures and other attributes.
- The premium paid for 'intangibles' such as public image, customer perception etc.
- Optimal equipment replacement timing, including selection of the best value option for renewal.
- Fully quantified whole-life costs and risks for justifying capital investment projects.
- Identification of critical assumptions and future data collection priorities.



APT-LIFESPAN is part of an integrated ASSET PERFORMANCE TOOLKIT

APT-PROJECT
Cost/risk evaluation of projects, change proposals, modifications, new ideas and other 'one-off' investments.

APT-MAINTENANCE
Cost/risk evaluation of planned maintenance, optimal intervals, preventive, predictive or reactive strategies.

APT-INSPECTION
Optimum inspection, condition monitoring and testing strategies, optimal condition reaction points, alternative monitoring methods.

APT-SCHEDULE
Shutdown strategies and intervals, optimum task grouping and timing, shutdown opportunity evaluations and resource or work planning constraints.

APT-SPARES
Strategic and slow-moving spares strategies, optimum spares levels, 'pooling' options, alternative suppliers.

APT-STOCK
Consumables and materials purchasing strategies, min/max stock, re-order quantities, supply options, storage requirements.

Decision Support Tools Ltd.,
19 Prince Henry House
Kingsclere Business Park,
Hampshire RG20 4SW , United Kingdom
Tel: + 44 (0) 1635 299200 Fax: + 44 (0) 1635 299555
www.decisionsupporttools.com