

# The EXAKT Software Snapshot

## Purpose of Software:

### EXAKT – What is it?

A decision support tool for predicting reliability and optimizing Condition-based Maintenance.

### EXAKT – What can it do?

Predict equipment failure; Estimate remaining useful life of equipment; Define the mix of preventive replacement & run to failure in order to:

- Optimize costs
- Optimize reliability
- To achieve the optimum risk/cost/reliability balance

## The EXAKT Benefits

- **Production Reliability** – is improved and operating costs reduced by predicting and avoiding failures.
- **Zero Equipment Downtime** - before the end of the production run, providing operations with a high level of confidence.
- **Accurate Maintenance Scheduling** - predicting remaining useful life.
- **Eliminate Analysis of low-impact data** – by directly relating condition variables to failure modes with statistical confidence levels.
- **Reduce maintenance costs** - by optimizing the frequency of preventive replacements.
- **Effective equipment and component replacement planning** - through accurate prediction of remaining useful life.
- **Accurate Failure Prediction** - for complex equipment, by operating at the component level.
- **Consistent and Accurate prediction model** - for each piece of equipment.
- **Focused on key operating and condition variables** - reducing data collection and analysis costs.
- **On-going system maintenance minimized** - self-checking analyser ensures the on-going accuracy of the statistical formulas.
- **Results at a glance** – from easy to read graphs requiring minimum training

EXAKT details



### Sample EXAKT Results:

- Maintenance cost reductions of 10 to 49% per failure mode
- 84 to 100% reduction in failures
- Consistently statistically significant confidence levels

### EXAKT Basic Input Data:

- Equipment and component parameters
- Event data from the work order (data relating to events that affect the equipment, such as failures, suspensions, frequency, working age)
- Condition data – vibration, oil sampling, temperature etc
- Failure modes
- Preventive and failure replacement costs

### EXAKT Sample Output Data:

- Optimum % balance of preventive replacement and run to failure maintenance
- Cost impact related to current practice
- Remaining useful life
- Expected time between replacements
- Traffic light graph with a current status trend line, the equation of the variables monitored by Exakt and a “Replace/Don’t Replace” conclusion in the red zone indicating the need to replace immediately.

### Industries Served:

- Any industry where asset replacement cost or equipment failures are a significant part of their operations
- Any heavy industry such as mines, steel, metals processing, chemicals, oil and gas, petrochemical, pulp and paper, large transportation (aircraft to truck and bus)
- Discreet manufacturing facilities – automotive, electrical, components, furniture, tires, plastics,
- Process manufacturing – pharmaceuticals, food and beverages
- Municipal, state and federal departments, military, customs, airports
- Telecom, gas, electrical, water distribution companies
- Success stories in Urea and Chemicals (Compressors and Pumps), Mining (haul trucks and shovels), Defence (frigate diesel engines) and others

EXAKT details