

BACKGROUND

Most companies record data from SCADA, control systems, PLC, computing systems and management systems. This data is seldom used for maintenance purposes. IMS, as part of their involvement with World Class Maintenance in the Netherlands have implemented predictive models using this data. The predictive models, can predict upcoming problems and failures on the equipment prior to occurrence, giving the maintenance manager indication where problems are going to occur and better control on scheduling the required maintenance and avoiding unscheduled downtime. Our Integrated Maintenance Management Solution (IMMS) can then be used to manage the maintenance activities. Spares can be procured before hand which minimizes downtime especially if a part has a long lead time.

“Asset requirements are managed from a technical, financial, legal and compliance point of view”

Engineering maintenance data is essential for success

Predict upcoming problems and failures on the equipment prior to occurrence

PREDICTIVE MAINTENANCE USING YOUR EXISTING DATA

Performing Predictive Maintenance using your existing SCADA, Plant Systems and Operations data

PREDICTIVE MODELS

The Predictive models analyze the data to identify problems with the following:

Bearings and couplings

Electric motors and gearboxes

Sensor problems

Misalignment of equipment

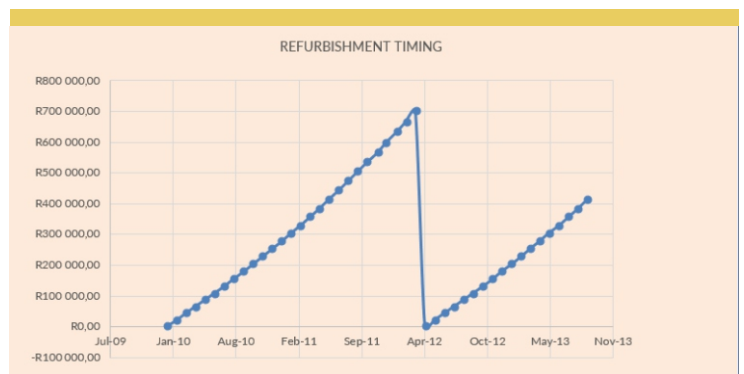
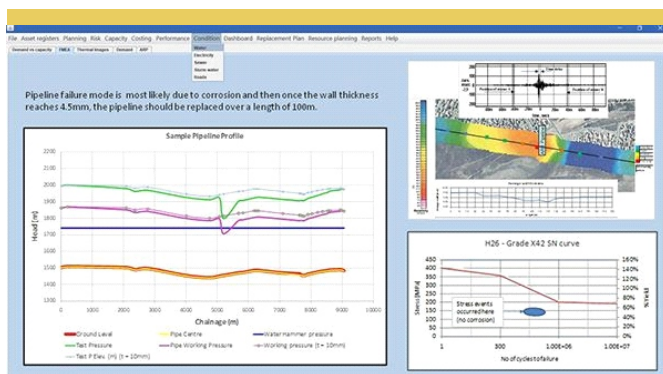
Wear and tear

Status of components for example roller roundness and operational condition

Evaluation of operational plant parameters to determine abnormal behavior as a result of maintenance requirements.

Failure modes and rate of deterioration of structural components, where they can be accessed.

Deterioration of high energy consumption plant and when to refurbish the plant.



GET SIGNIFICANT MAINTENANCE BENEFITS ON YOUR EXISTING INVESTMENT FROM YOUR RECORDED DATA.

THE BENEFITS

The benefits of using our Predictive Maintenance Models include:

Reduction on downtime, increase uptime

Less reactive maintenance and plant downtime

Reduction in costs for monitoring solutions

Improvement in maintenance scheduling

Utilizes your existing data

Management of upcoming problems and failures using an optimized structured approach

THE PROCESS

Negotiation with the customer to provide existing data.
Analysis of the data to see the prediction capabilities.
Establish a predictive model and the Integrated Maintenance Management Solution (IMMS)
Establish a real-time data stream from the customer
Predictive model validation including on-site measurements
Training and support

CASE STUDY

A predictive model was developed to determine the state of hundreds of rollers, electric motors, gearboxes and bearing on the plant in Tilburg. The predictive model can determine plant misalignment, roller roundness and wear and tear, bearing conditions, electric motor and gearbox problems and set point problems.

