



EFFICIENT. EFFECTIVE. PROFITABLE.

Time-in-State® is a performance management technology that increases **Efficiency, Effectiveness and Profit**. It enables processing plants to improve production output by more than 10% and increase energy efficiency by more than 7%.

Time-in-State® boosts margins by delivering operating cost reduction and effective asset utilization without the need for capital expenditure.



M - T e c h
industrial

Leading Energy Solutions

www.mtechindustrial.com

MESA
INTERNATIONAL
ENDORSED

EFFICIENT

- Characterise as-is status of plant health.
- Identification & qualification of opportunity.
- Root cause assessments.

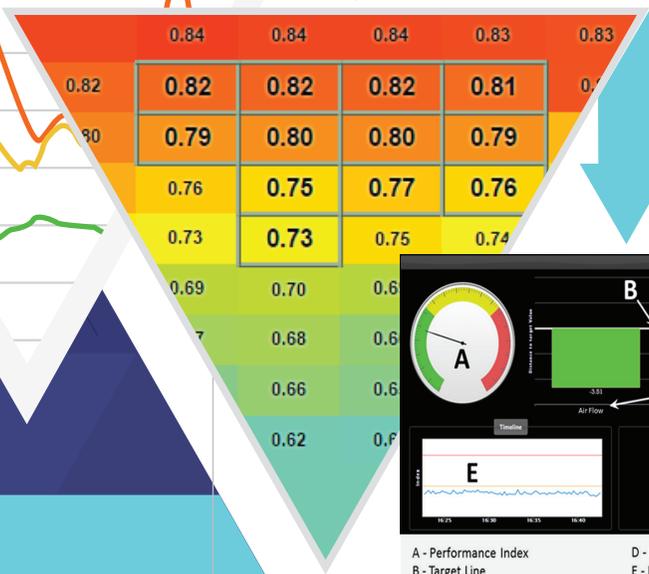
EFFECTIVE

- Define Optimum Operating Envelope (OOE).
- Management of OOE.
- Pro-active management.
- Standardised corrective actions.

PROFIT

- Increase % time in ideal state.
- Capture human capital.
- Predictability.
- Empowerment.
- Operational risk management.
- Connect process to finance.

Time-In-State® (TIS) converts process data into process maps.



TIS process maps define key influencing factors and boundary conditions for optimum operating envelope.

TIME-IN-STATE® IS USED IN CONTINUOUS PROCESS INDUSTRIES

- Mining Beneficiation.
- Food and Beverage.
- Water Reticulation.
- Power Generation.
- Petro-Chemical.
- Chemical.
- Paper.
- Steel.

Simplify your plant data into a pro-active management tool

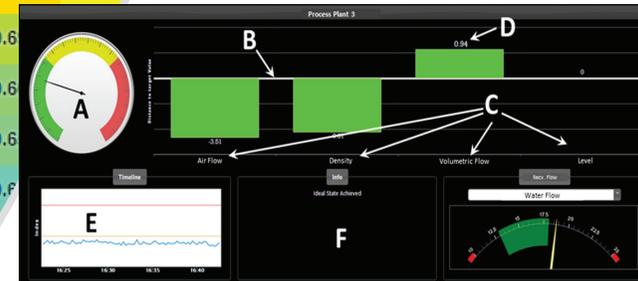
Most continuous production processes operate for less than 30% of the time in ideal state representing substantial losses in terms of production output, costs, quality, asset performance and impact on the environment.

To implement Time-in-State®:

- No capital outlay required.
- Installed instrumentation infrastructure.
- Technical and Operational personnel.
- Technical Data.
- Time-In-State facilitator.

Time-In-State® Delivers:

- Define your Optimum Operating Envelope (OOE)/Ideal state.
- Automated model for pro-active management.
- Simplification of KPI's.
- Increase % time in ideal state.
- Stabilise process, ensure predictability.
- Standardised corrective/preventative actions.
- Automated reporting.



A - Performance Index
 B - Target Line
 C - Key Influencing Factors
 D - Deviation from target
 E - Performance Index History
 F - Feedback to Operational Staff (Knowledge base)

From the process maps an automated model is built and displayed. The dial indicated on the left is operated in the ideal state. The bars on the right indicate the key influencing factors that influence the ideal state of OOE. This functionality delivers an automated interpretation of operating/equipment conditions and facilitates pro-active implementation of standardised corrective actions.

WEB-BASED

A simplistic web-based interface offers visibility of the health of the operations anywhere in the world. While this keeps all informed, its most important benefit is the empowerment of the operations team by providing them with a tool that not only informs but assists in delivering predictable output from the plant to all interested parties. In summary, it is a tool that ensures no surprises for management while taking away the guesswork for the operations team.

ADVANTAGES

1. Improved bottom line.
2. Increased time in ideal state.
3. Improved energy efficiency.
4. Ownership.
5. Improved conversion efficiency (yield).
6. Extended equipment life.
7. Predictable quality.
8. Standardised actions.
9. Continuous Improvement.

Please watch
our video:



IME Solutions:
Time-in-State

TIME-IN-STATE CLIENTS:



“

The implementations of Time-In-State was a fairly easy process, we saw a significant improvement in plant performance and created a sense of stability and predictability.

Stephan van Zyl,
Superintendent Metallurgy,
Nkomati Nickel JV , MMZ plant

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Getting real facts and not misguided opinions from open forums for optimisation.

Grant Cocburn,
Metallurgical Specialist,
Nkomati Nickel JV, MMZ plant

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It is a much simpler and easier way for the operator in the control room to know: this is the first thing I need to go and do, and that had a real time effect on the production of the plant.

Stiaan Burden,
Vice President Business Development, ABB- Full Service,
Sub-Saharan Africa

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“

We saw improved recoveries, improvement in the quality of the product, so it was a huge financial benefit.

Manie Potgieter,
Production manager,
Nkomati Nickel JV, MMZ plant

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