MODE
MAINTENANCE OPTIMISATION DIAGNOSTICS

Syndrome Diagnostics

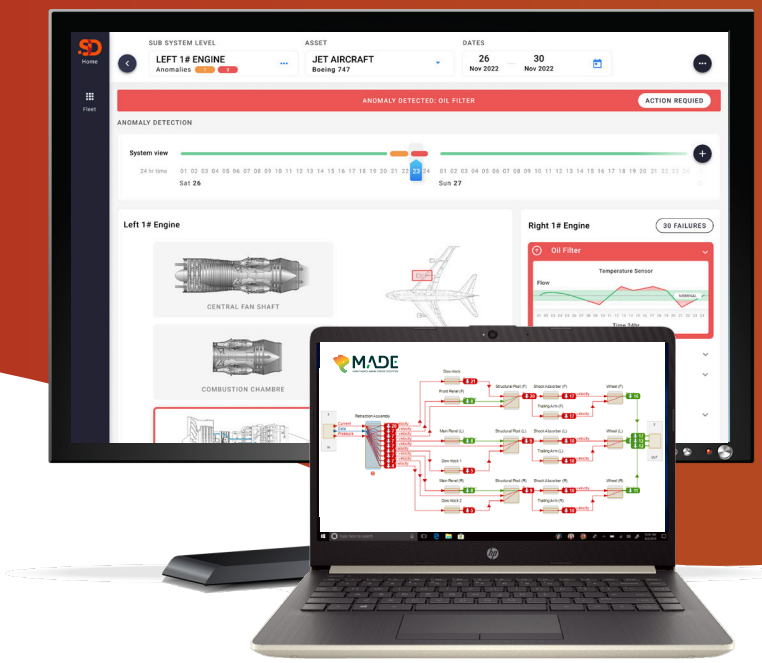
Engineering Context for your AI

Understand Your Machines Better with Syndrome Diagnostics's (SD) Causation-based AI Approach to Failure Detection and Isolation (FDI)

Designed specifically for complex engineering systems, SD focuses on ensuring the safety and reliability of mission-critical operations. Powered by the innovative Digital Risk Twin, SD enables early detection of critical failures, providing not only precise identification but also valuable engineering context. This insight reveals both the "how" and "why" behind system failures.

The next generation of FDI is here, offering;

- A Causation-based AI approach
- Engineering context into failure identification
- Optimized performance with less data
- High prediction integrity
- Faster fault detection
- Early detection of incipient failures
- Robust solution that reduces overfit



GET MORE INFO

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SYNDROME DIAGNOSTICS

Engineering Context

Bring engineering context to your FDI project

Syndrome Diagnostics (SD) seamlessly integrates with the Digital Risk Twin created by the MADE Software Platform. This allows SD to objectively identify all potential system failures without having to wait for real-world occurrences. SD enriches the Fault Detection and Isolation (FDI) mechanism with valuable engineering data, providing deeper failure context - Causation-based AI. This enriched context includes:

- Syndrome-based failure identification
- Diagnostic Traceability / Explainability
- Automated Exploratory Data Analysis (EDA) for model training
- Functional / Physical failure coverage
- Predictive integrity (incipient failures)
- Customizable alarms and alerts (dashboarding)
- Contextual maintenance strategies

Why choose Syndrome Diagnostics?

Causation-based AI
SD's Causation-based AI models understand how and why failures occur, enabling predictive insights grounded in engineering logic, not just data trends.

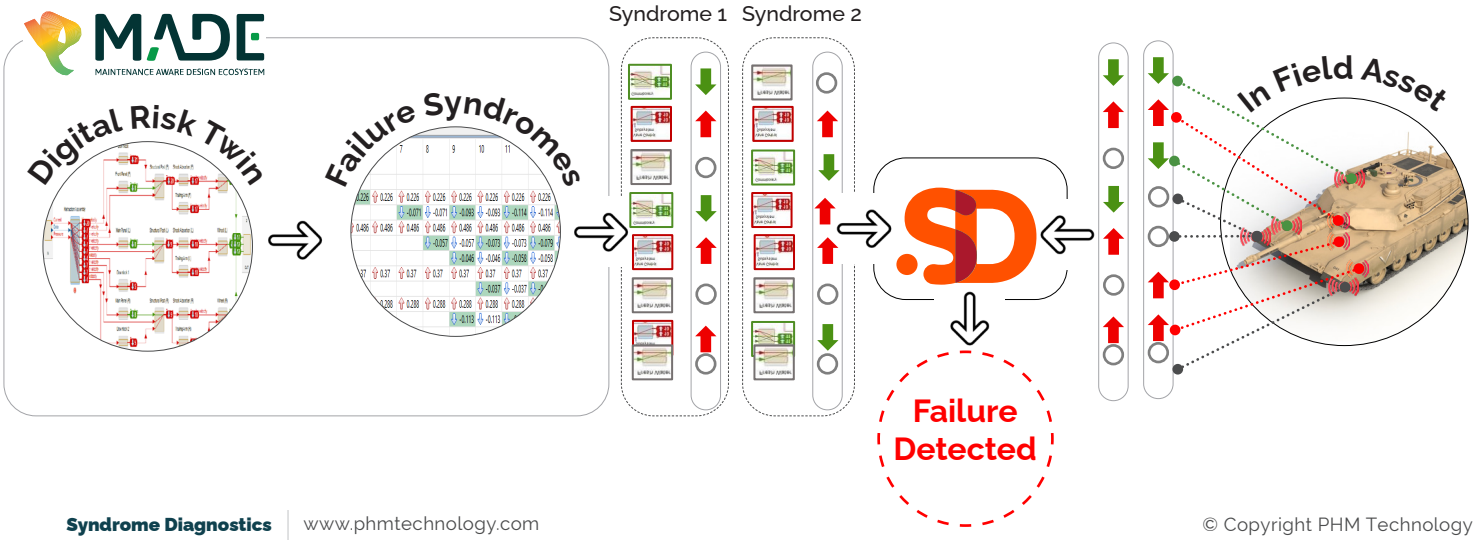
Adapts to Changes
SD seamlessly adapts to evolving systems with engineering context, avoiding costly retraining and maintaining predictive integrity.

Prevents Critical Failures
SD anticipates failures without real-world risks, protecting mission-critical systems, increasing Operational Availability (Ao) while reducing the Cost of Ownership.

Transparent Decisions
SD, integrated with the Digital Risk Twin, ensures traceable, explainable decisions based on advanced failure mapping and context.

Limited Data
SD is powered by MADE's Digital Risk Twin which embeds engineering context to deliver fast, accurate predictions with minimal sensor data.

Fast ROI
Traditional FDI systems are slow and costly. SD's causation-based approach predicts failures quickly and accurately, ensuring a rapid return on investment.



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