

IS YOUR PI DATA READY FOR AI?

From signal fidelity to operational trust — build a PI System foundation AI can rely on.

With complementary capabilities from Pattern Discovery CompressionInsight™ and Tycho Data Osprey.

AI Starts With Trustworthy Data

Industrial AI initiatives depend on more than powerful models. They require historical signals that preserve meaningful process behavior—and operational data that is current, correctly contextualized, traceable, and monitored. CompressionInsight and Osprey address these complementary requirements across the PI data lifecycle.



1. Fidelity

Does the archive preserve the signal? CompressionInsight analyzes archived versus raw behavior and recommends tag settings that balance information retention and storage efficiency.



2. Health

Is the data available and current? Osprey monitors stale tags, data gaps, invalid values, and other quality issues across the PI environment.



3. Traceability

Can you understand impact and context? Osprey helps teams connect tags, assets, calculations, displays, and downstream dependencies.

Why This Matters for AI

AI REQUIREMENT	PI DATA QUESTION
Reliable historical features	Was process behavior lost through unsuitable compression?
Dependable live inputs	Are critical tags updating and free from gaps or bad values?
Explainable results	Can engineers trace a value back to its source and context?
Scalable governance	Can issues be detected, prioritized, and monitored continuously?

Before asking what AI can do with your PI data, ask whether your PI data is ready for AI.

A PRACTICAL PATH TO PI AI READINESS

Use one predictive-maintenance or operational-analytics use case as a focused assessment. Start with the tags feeding the use case, then evaluate both the quality of the archived signal and the health of the operational data around it.

01

Define the use case

Identify the asset, model objective, decision threshold, and critical PI tags.

02

Verify signal fidelity

Use CompressionInsight to compare archived behavior with the source signal and identify tuning opportunities.

03

Check data health

Use Osprey to find stale tags, gaps, invalid values, broken references, and configuration issues.

04

Map impact and lineage

Trace inputs through AF attributes, calculations, displays, and downstream consumers.

05

Remediate and monitor

Tune, repair, document, and continuously monitor the data supporting the AI workflow.

How the Products Complement Each Other

CompressionInsight™

- Analyzes PI tag behavior and archived-data fidelity.
- Recommends exception and compression settings.
- Helps preserve the information needed for analytics and AI.

Best question: "Did we retain the characteristics of the original signal?"

Tycho Data Osprey

- Monitors operational data quality, lineage, and dependencies.
- Detects stale tags, data gaps, broken references, and configuration issues.
- Helps users understand trust, context, and downstream impact.

Best question: "Can we rely on and trace this data?"



PATTERN DISCOVERY
TECHNOLOGIES INC

www.patterndiscovery.com

TYCHO DATA

www.tychodata.com



Ready to Assess One Use Case?

Select a critical asset or model-input set and evaluate it across five dimensions: fidelity, freshness, context, lineage, and governance.