

# BC Automation

## Data Integrity & Contextualization for Industry 5.0

*Tech Primer - 07/04/25*



Raw data doesn't drive insight — structured, verified data does.

In Industry 5.0, intelligent systems rely on high-resolution, trusted telemetry. BC Automation ensures every signal is contextualized, time-aligned, and source-verified using SPA™, Fractional Historization, and edge-native Software Defined Autonomy™ — all secured through encryption and resilient to network or hardware disruptions. The result: operational clarity, audit confidence, and trusted machine learning — from edge to atmosphere.

### PROBLEM: Legacy data systems degrade trust and limit insight.

Traditional industrial systems:

- Downsample and compress telemetry, losing signal fidelity
- Lack time-synchronized records tied to specific assets or operators
- Allow uncontrolled data flows and unauthorized vendor access
- Offer no clear path to AI training or Digital Twin reliability
- Fail under audit due to unverifiable or missing contextual data

### SOLUTION: Structure. Secure. Synchronize. Then analyze.

BC's MIP architecture captures structured telemetry at the source, protected by:

- SPA™ for protocol-neutral, metadata-rich, encrypted edge-to-cloud data orchestration — hardened against cyber threats targeting industrial infrastructure
- Fractional Historization for high-resolution, time-aligned signal records that are secure and auditable
- MetaLoop for real-time control refinement based on trusted context
- Software Defined Autonomy (SDA™) for intelligent decisions built on clean inputs
- Optional DAG and blockchain support for immutable audit trails and compliance-grade verification

### OUR IMPACT: Data becomes a foundation — not a liability.

- Operators trust what they see — in real time
- Engineers tune based on facts, not assumptions
- Executives gain verifiable performance insight
- Auditors find clean, compliant data trails
- AI models and Digital Twins work with confidence — not guesswork

95+

clients served

625+

unique processes automated

\$3.8B+

client dollars saved

**"A huge asset to any company looking to improve their cost and reliability."**

Chris Whitehair  
SVP Global Operations at SunOpta

**"[BC Automation's] solutions are most thorough and comprehensive."**

Ned Mitenius  
Founder & Sr Consultant at Periscope Consulting

**Let's Transform Your Manufacturing Together.**



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