

IMPLEMENTATION PLAYBOOK

# Manufacturing Inspection Data Lifecycle

A phased roadmap from machine acquisition to governed reuse and AI readiness

**DATARAM AI**

Dataram AI Technical Resource

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# The data challenge

Inspection data only creates value when it remains reliable, understandable, discoverable, and economical throughout its lifecycle. This playbook outlines a practical sequence for building that foundation with Dataram IDM and MOS.

- Line-side data is often stored with inconsistent names, formats, metadata, and retention rules
- Teams cannot reliably discover or reuse data across quality, engineering, analytics, and AI workflows
- Capacity growth, backup, migration, and archive work consume increasing operational resources

## A practical Dataram approach

|             |                                                                                               |
|-------------|-----------------------------------------------------------------------------------------------|
| 1. Discover | Inventory sources, owners, formats, volumes, growth, dependencies, and retention obligations. |
| 2. Acquire  | Automate collection, validation, normalization, and metadata enrichment at the edge.          |
| 3. Govern   | Define shared access, lifecycle, protection, observability, and integration standards.        |
| 4. Activate | Enable traceability, dashboards, defect analysis, datasets, and AI through phased use cases.  |

## Expected operational outcomes

- One governed path from production equipment to online storage and long-term archive
- Seconds-scale retrieval using business metadata instead of directory traversal
- A reusable data foundation that expands from quality operations to analytics and AI

## Next step

Use this brief to align quality, manufacturing, IT, and data teams on the first measurable deployment scope. Dataram can then assess workload behavior, integration requirements, growth, protection, and lifecycle objectives for a production-ready design.

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