

Customer Results

Aquarium of the Pacific

- 60% less labor required.
- Now have the ability to trend & review history in an instant.
- Simplified training for shift & employee change.

"The MAINTelligence Inspection System gives our technicians a lot less paperwork and a lot more time to troubleshoot."

—Christopher Carr,
Life Support Systems Manager

Valero Energy Corporation

- MTBF for rotating equipment improved from 42 months to 53 months.
- Maintenance shifted from 90% unplanned to 15% unplanned.
- Savings - \$1 million dollars (US) in reduced maintenance costs per year.
- 61% reduction in KPI's in 3 years

"A lot of this is credited to our operators putting the information in the MAINTelligence handheld."

—D. Hawkins, Energy Coordinator

Canfor Pulp & Paper

"Basic equipment inspections using MAINTelligence has shown us significant benefits with the ability to easily trend data, diagnose equipment and communicate problems more easily. Moving away from paper based inspections has allowed us to gather more data and to only review equipment in alarm instead of reviewing data that requires no follow up."

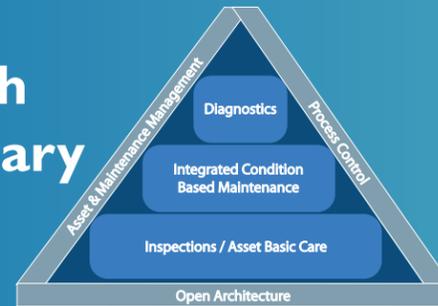
—Mike Todd, Reliability Engineer

Lafarge North America

"Inspections have caught many potential problems throughout the plant. Early detection is the key to being a pro-active department rather than a reactive one and I see my shift turning in that direction."

—Joy Vogelsong, Shift Coordinator

Open Data Exchange with Non-Proprietary Systems and Hardware



A great reliability program is backed by a partnership between maintenance, operations, planning and other departments. It is built with tools that facilitate and create these partnerships, fostering company-wide support. That is why MAINTelligence provides the flexibility to choose which key information to share for strengthening partnerships and support between programs and departments.

Built with an open data exchange, MAINTelligence connects with non-proprietary systems and hardware.

- Condition Monitoring Data Collectors (all disciplines)
- All major Oil Analysis laboratories
- ERP / EAM systems (SAP PM, Oracle EAM, Invensys, JD Edwards, Ventyx etc.)
- Process Historian Systems (OSISoft PI)
- Remote Citrix Metaframe



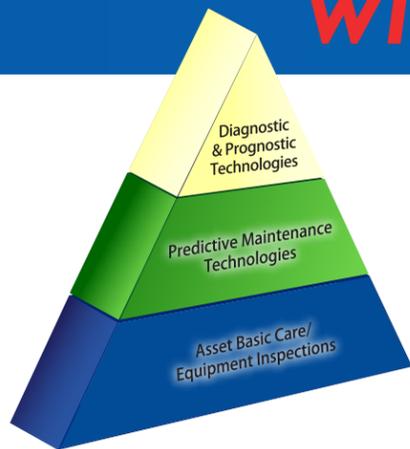
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Asset Inspections & Basic Care

get proactive with Inspections



Mobile Inspections using rugged computers profoundly impact a maintenance and reliability program by shifting the mindset to a more proactive approach. They also bring a more comprehensive approach by involving operations and maintenance both working together in an Asset Basic Care program.

What is Asset Basic Care?

Asset Basic Care (Operator Driven Reliability) is a formal inspection program that records the health of your assets using an electronic checklist and/or monitoring equipment on a handheld computer. It is the best way to develop a record of the operating condition of your assets, introduce the concepts of autonomous maintenance, and help change an organization's culture from a reactive to proactive mindset.

In a very short time, an asset basic care program will develop an equipment database populated with information to help prevent failures before they happen—moving the organization from “fire fighting” to streamlined maintenance and operations and adding value to the bottom line.

MAINTelligence is key to the success of an Asset Basic Care program due to its rapid deployment and flexibility — handling all the relevant data involved for operator inspections and total lubrication management.



Benefits of Asset Basic Care

- Increased asset reliability.
- Reduced operations and maintenance costs.
- Improved communications between maintenance and operations.
- Positive long-term impact on safety and environmental performance.

transform data into action MAINTelligence Inspections

MAINTelligence is specifically designed to handle the field requirements of an asset basic care program. MAINTelligence offers two options, InspectCE™, running on a rugged handheld, and InspectNET™ on a rugged tablet. Both InspectCE and InspectNET offer completely customizable inspections that can collect significant amounts of information both directly and via attached or wireless data collectors.

MAINTelligence provides instant feedback to determine the overall condition of the machinery being monitored, and can be used to generate additional tasks or corrective work orders, either within MAINTelligence or to an external ERP / EAM system such as SAP, Oracle or JD Edwards.

MAINTelligence Inspections use scanning technology (bar codes / RFID) to quickly identify the equipment you are inspecting. The scanned tag automatically displays all the inspection points for that machine. Inspection routes can be uploaded and downloaded via USB, Ethernet and wireless (802.11, GPRS, Bluetooth) interfaces. InspectCE runs on Windows Mobile 5.0® (or higher) handheld computers. InspectNET runs on tablet computers running Windows 8™ or Windows 10™. There are many rugged handheld and tablet options, including several non-incendive (CL1 DIV2 / Atex Zone2) and intrinsically safe (CL1 DIV1 / Atex Zone 1) options.



Types of Inspections:

- Maintenance, Operations and Lubrication
- Safety, Health and Environmental rounds
- Inspections with Enterprise Systems

Collect Data:

- Pressure, current, flow, etc.
- Operating Hours/ Meter Readings
- Check Lists, single and multiple selection
- Usage, Level and Sound Recordings
- Lubricant and Grease Application Recording
- Free form or predefined notes
- Images (including thermographic)
- Temperature (using infrared thermometer)
- Vibration, Overall / Waveforms (using Bluetooth™ Liberator™ digital accelerometer)
- Work Requests for off-route assets

Display to Operators:

- Asset Identification (Bar Code / RFID tags)
- Pre-Inspection Instruction Notes
- Alarm Indication Response Notes
- Parts Lists / Bill Of Materials
- Work Orders (both open and completed)
- Trend Charts of previously recorded values

As a new addition to MAINTelligence inspections, InspectNET offers all the same capabilities as InspectCE plus all the advantages of using a full functioning computer in a tablet version, with a larger screen. Advantages of InspectNET:

- Larger screens with more readable fonts.
- Wirelessly upload/download inspection routes via LAN or internet.
- Capture multiple images, accessing the built-in camera(s) of the tablet.
- Built-in PDF document viewer
- Interface to ultrasonic thickness reader.

