IBM Maximo

Agenda

IBM TEAM
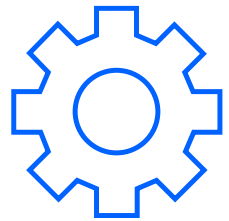
Colton Howard
Maximo Technical Specialist
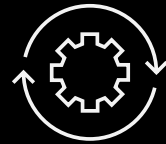
Simon Cantwell
Maximo Technical Specialist

Objectives of the call

1. Introductions

2. Maximo Visual Inspection Overview

3. Demonstration

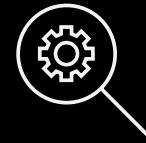4. Next Steps

What Wabtec Uses Today

Maximo Application Suite
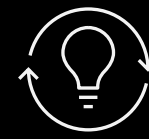
Manage
Intelligent asset management

Monitor
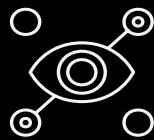Monitor real time data and detect anomalies

Health
360-degree view of asset health
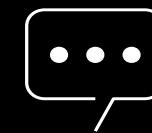
Predict
Predict failures earlier using AI

Visual Inspection
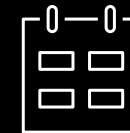AI-Powered insights for inspections and production quality

Mobile
Technician work execution remotely

Assist
Prescriptive assistance using Generative AI

Scheduler
Schedule work and resources

Maximo Visual Inspection

Business Value

– Increase accuracy and speed of inspection to **99%+**

– Manual inspections ONLY catch **18%** of issues, increasing annual maintenance costs by **20%+**

– Rework and Material waste cost amounts to **1.2%** of annual rev

– Increase expert productivity

Application

– Central point for management of AI models

– Application for enhanced physical inspections, production quality, counting, and barcode scanning.

– Powerful auto-AI engine at the core reduces cost and time for AI development by **65%+**

Capabilities

– Simple, rapid deployment of custom computer vision models

– Classification, Object Detection, and Action Detection models to support a variety of organizational requirements
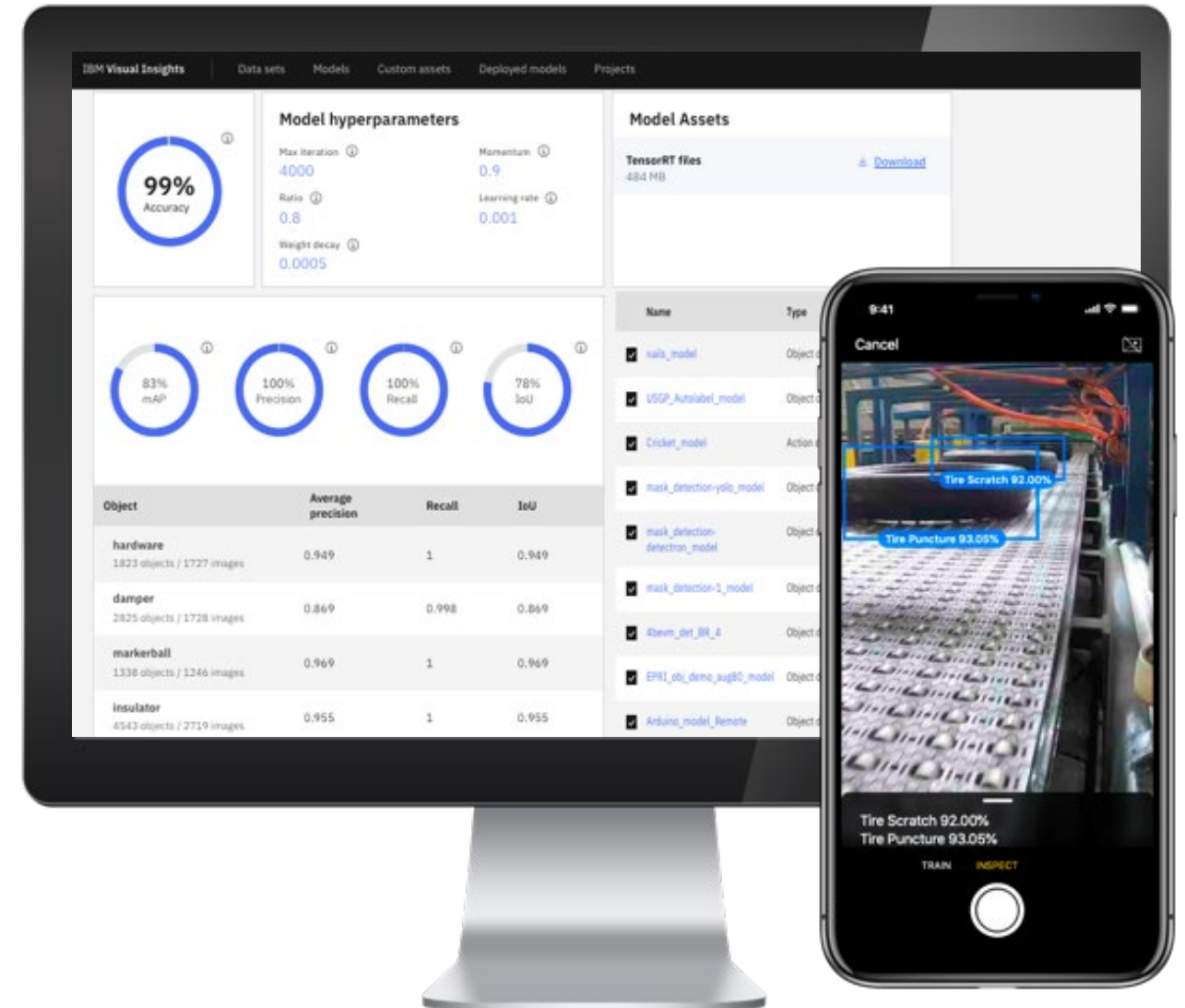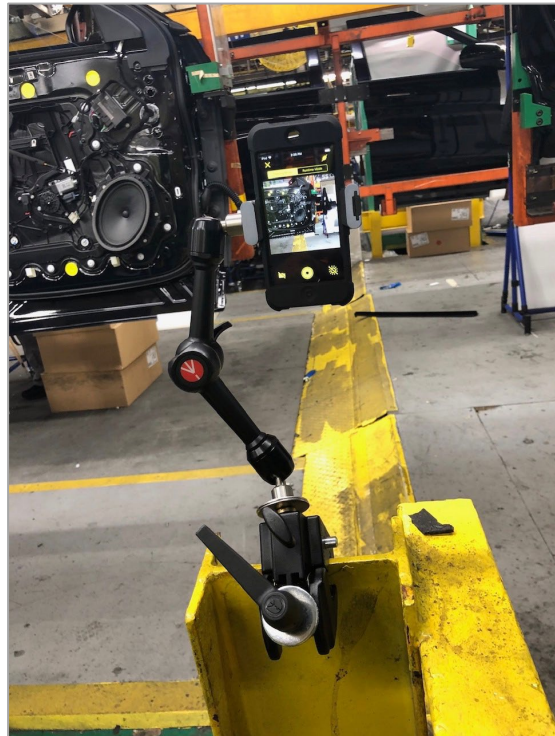
IBM Maximo Visual Inspection: Game Changing Capability

Quick response to process issues using off the shelf Visual Inspection technology

Install   **Collect**   **Inspect**   **Alert**
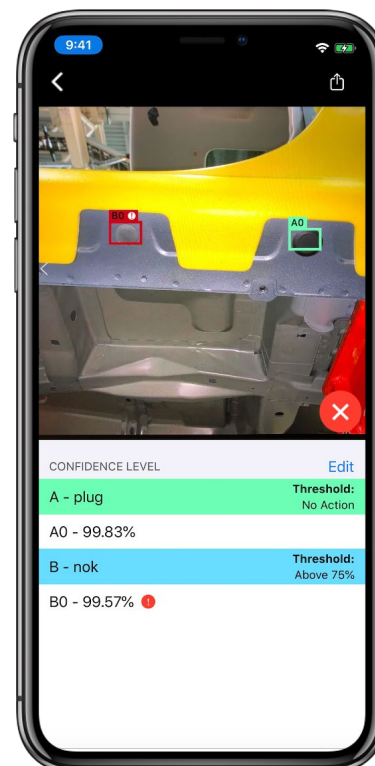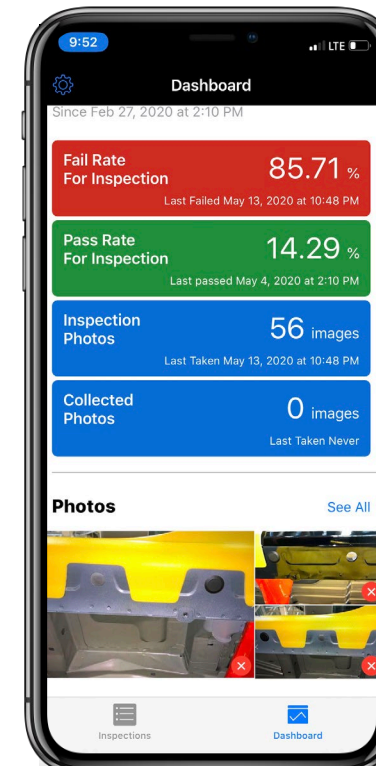
Hours

- ▶ Improves **inspection, failure detection and error-proofing processes** with machine learning, acoustic modeling, and visual recognition.

- ▶ To be used in **handheld devices or fixed mounts**.

- ▶ **Instant diagnosis** – object detection and defect detection & classification.

- ▶ **Automotive specific triggers** – timestamp, VIN, broadcast codes.

- ▶ Easy to deploy by using **everyday technology**.

- ▶ Dashboard with **trending analytics.**

- ▶ **Respond to process issues in hours,** not days or weeks

5

Maximo Visual Inspection

Label, Train, and Deploy

Edge Devices

Label

Train

Infer

Edge Devices

Local Storage

Data Ingestion

Visual Inspection

Batch Processing

Export Models via API

Maximo Mobile

iOS Device
Maximo Visual Inspection Mobile

Server+ Camera
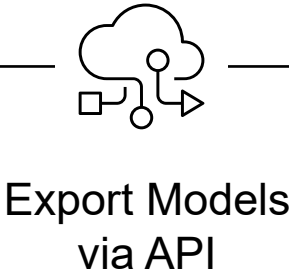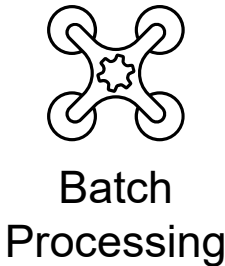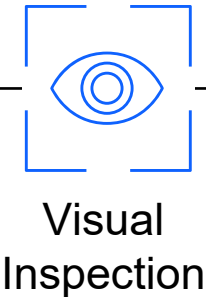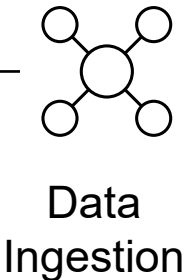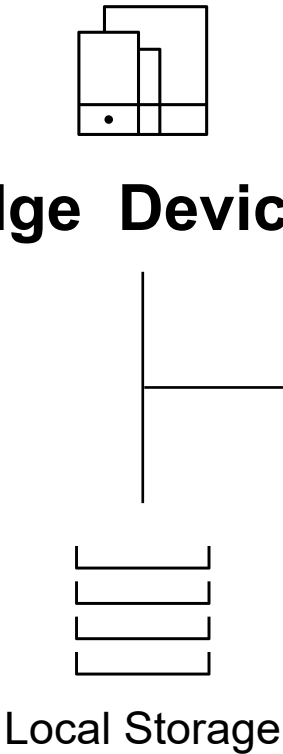
Maximo Visual Inspection Edge
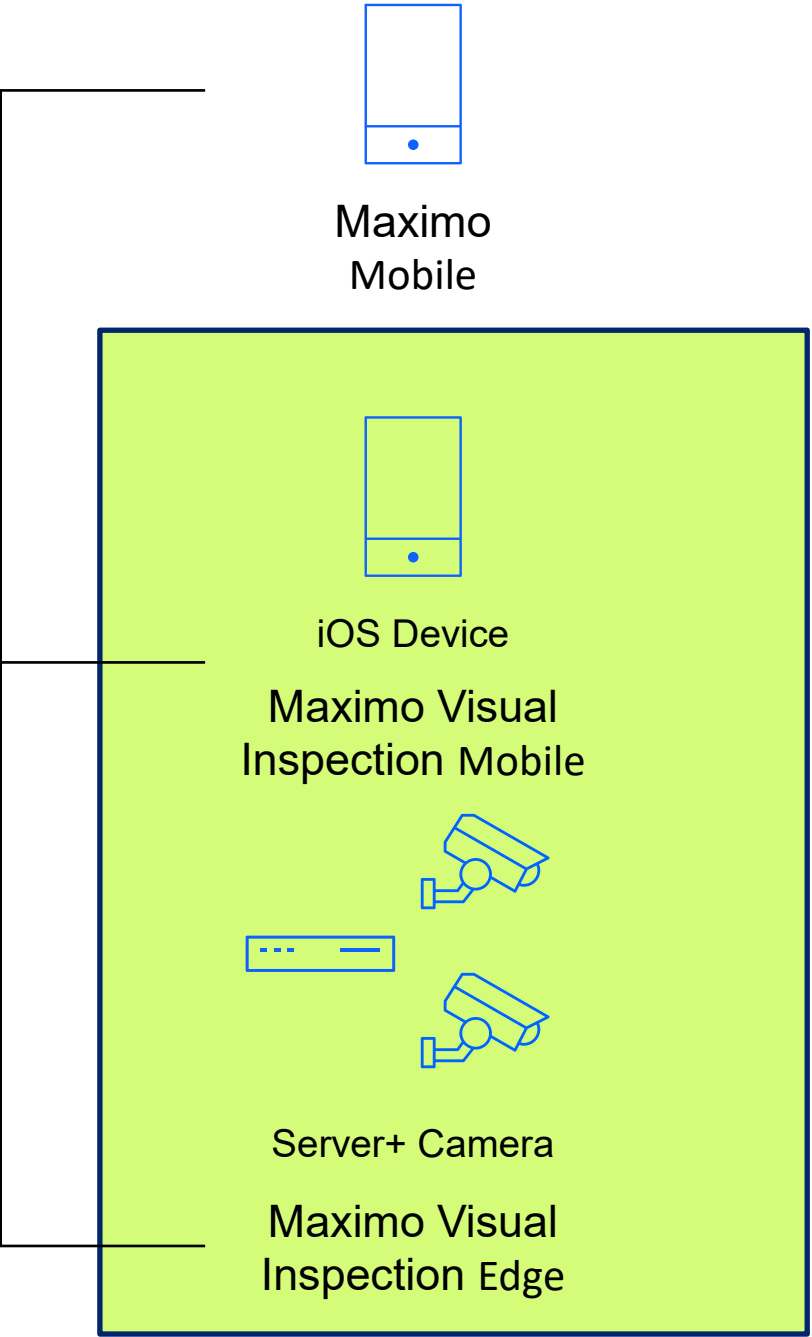
Operational workflow with MVI and OT/IT systems

Maximo Application Suite

Checks Visual
Inspection Results

Quinton
Quality Engineer
(**Field inspections**)

Continues to Build New
Computer Vision Models

MES (**Manufacturing inspections**)

VIN NUMBER
1ABCD23EFGH456789

Trigger inspections of
parts moving on the
production line

**Maximo Visual Inspection Edge
Or MVI Mobile**

Stop the Line/Notify operator
When Defects are Found

Production Parts
Body Panels

Demonstration

Bearing Defects

Left - Good Condition : No visible issues

Middle - Surface Defect: Visible scratches and burrs on its surface. Compromising the shield's sealing capability or leading to corrosion risk.

Right – Shield Missing: The seal/shield is missing. Its absence could indicate an issue in the assembly process, where a step was skipped or overlooked.
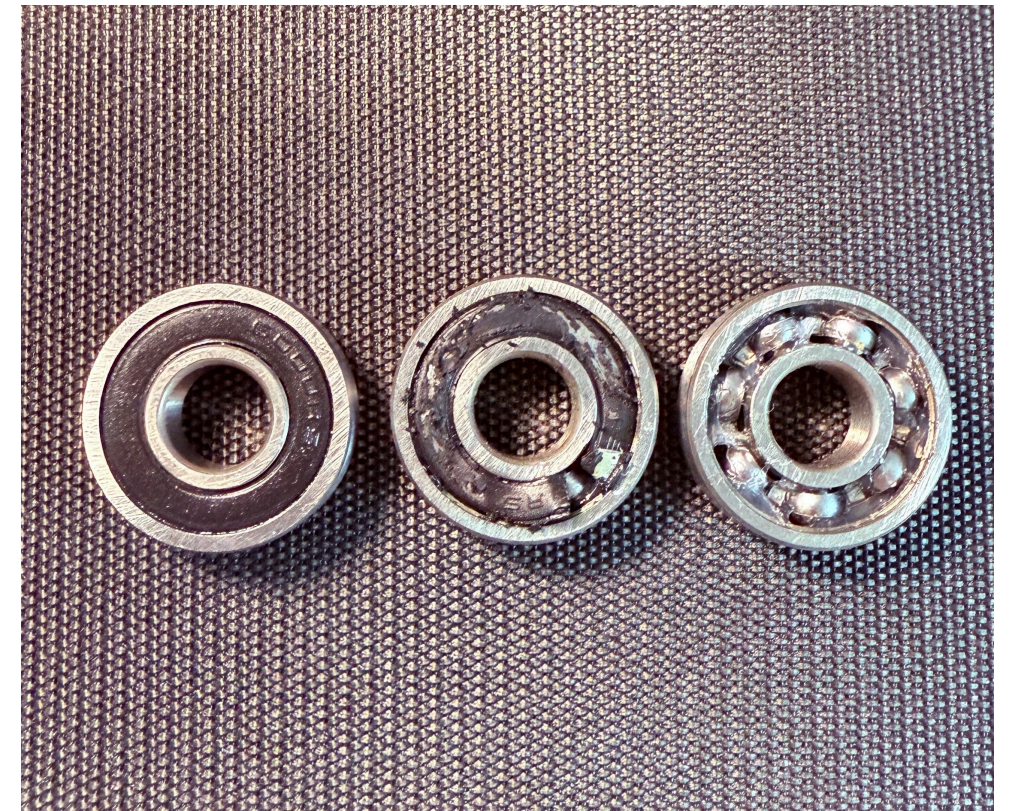
IBM Maximo

Demonstration

Public Success stories-Manufacturing

Henry Ford Innovation Award

Automate 2022 Presentation

MVI Demo

MVI click through demo

Automotive News article

MVI Demo Montage

Next Steps

in 1 hour	2 hours	2-3 Day	4-6 months	

Introductory Meeting –Demo(s)

Key Activities
- Raise Awareness (Demo necessary)
- Share use cases, explore the application of capability with client

Outcome: Schedule Onsite Workshop

Workshop Planning

Key Activities
- Identify 4-6 use cases
- Validate use cases will fit in 2-day model

Outcome: Pick 2-4 use cases and confirm logistics for the workshop

Workshop: Proof of Technology

Key Activities
- Plant tour-Capture pics of use cases
- Build MVI Models
- Demo client uses cases on day 2
- Discuss/demo common integration scenarios
- Executive presentation with recorded demos of their use cases
- **Outcome**: Decision on scoping paid pilot/ production implementation

Production Pilot (Land 2-4 use cases)

Key Activities
- Site Survey to choose "landing" use cases
- Implement use cases (with MES integration)

- **Outcome**: Production implementation of a few use cases to prove operational value

Production Expansion

Expansion
- xxx inspections per plant
- New Plant