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Predictive Maintenance using PTZ Cameras

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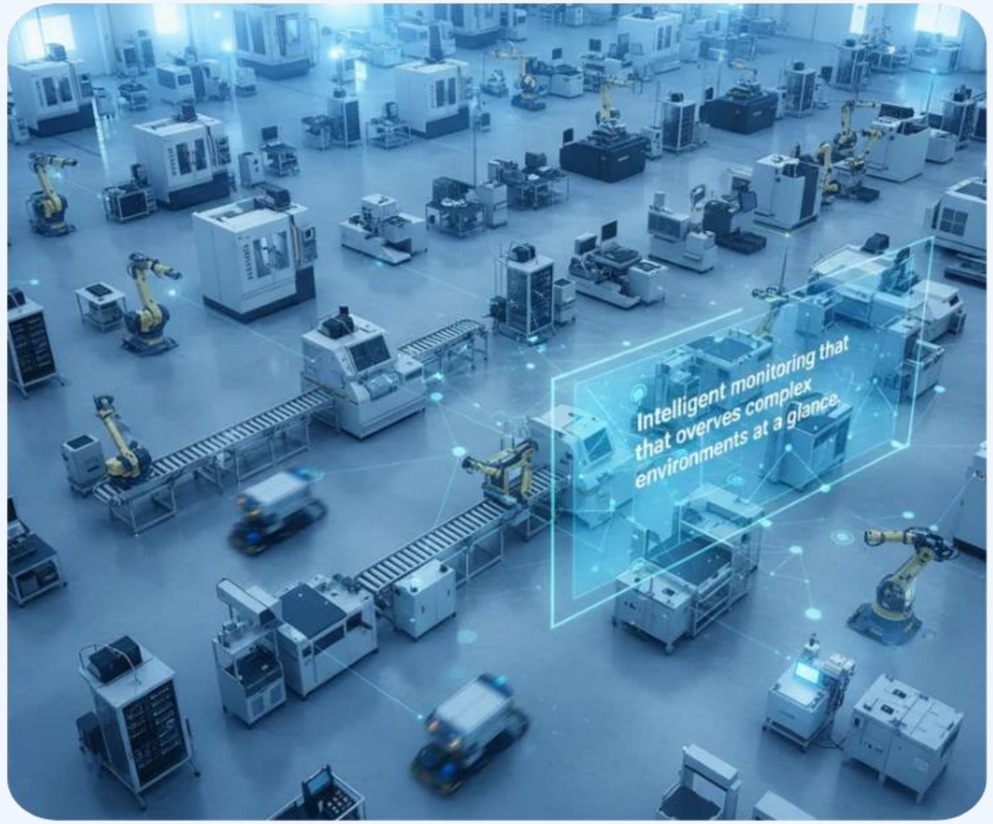
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Smart PTZ Maintenance



Monitoring maintenance needs across diverse environments is complex and costly.

Equipment may be stationary or moving, located indoors or outdoors, in wide or confined areas.

Using multiple fixed cameras increases cost and complexity.
WildFaces (an iOmniscient company) solves this with PTZ cameras that dynamically track multiple assets, reducing the number of cameras and minimizing infrastructure expenses.

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PTZ Cameras for Predictive Maintenance



- WildFaces enables Predictive Maintenance on the Move using intelligent PTZ cameras.
- These cameras scan large or complex environments, identifying potential faults before they occur.
- They help operators predict wear, optimize schedules, and ensure operational reliability —
- All while reducing maintenance costs.

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Application Environments

Effective even in areas where traditional GPS or sensors fail:

- Ceiling cavities and building interiors
- Deep underground mines
- Underground car parks
- Factory lines and industrial plants.
- The system performs reliably in all these dynamic and GPS-limited environments.



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Video-Based GPS Positioning



- WildFaces' **Video-Based GPS** provides 1-meter accuracy —**five times more precise than satellite GPS.**
- It determines exact positions and maintenance status of moving assets (e.g. forklifts, pumps) even when both cameras and objects are in motion.
- This allows seamless monitoring of mobile equipment indoors.

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Achieving Outcomes

- Detecting wear and tear on elevator wire ropes.
- Identifying hazardous objects on escalator steps.
- Detecting anomalies on moving conveyor belts.
- Monitoring forklifts and pump lines in factories.
- Reading multiple meters in large rooms.
- Automatically assigning the right responder with location and task details.



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Autonomous Response

- When an issue occurs, the system identifies the appropriate responder.
- It sends the incident location and required action to the responder.
- The responder receives guidance on where to go and what to do.



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Partnership

All iOmniscient Products run exclusively on Intel based computing hardware using OpenVINO™

- The use of Advanced AI technology that goes beyond Deep Learning enables iOmniscient to run its systems without the need for 3rd party GPUs.
- This reduces the power required by a factor of 16 – resulting in a 16-fold reduction in the carbon footprint.
- This is just one part of a multi-faceted program to help customers to implement Sustainable Systems.

www.iomni.ai

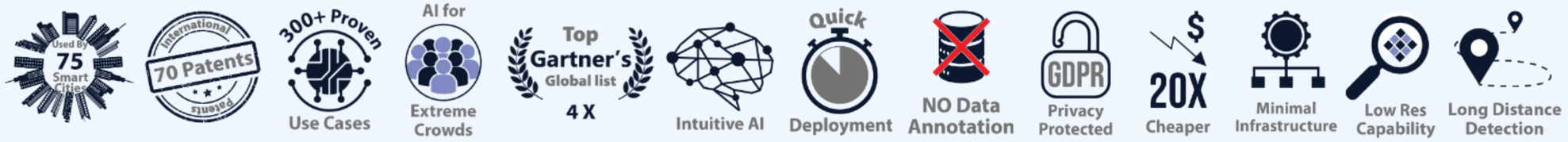
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About iOmniscient

- iOmniscient is an **Ethical AI** company.
- It offers **multi-sensory (video-sound-smell) Artificial Intelligence based analytics for Autonomous Systems.**
- It focuses on ensuring **Outcomes** for its customers.
- With **over 2 decades of experience,** iOmniscient systems have been demonstrated to be **robust,** operating with high accuracy and few false alarms specially in **complex and crowded** environments.
- By design, its systems **reduce the cost of infrastructure** required:
  - they can use existing cameras
  - they require fewer cameras with lower resolution
  - they require 90% less storage and network bandwidth
  - they are computing light and require no GPUs
  - they allow autonomous operations requiring fewer personnel to operate
- iOmniscient has implemented projects in **70 countries.**
- With over **70 international patents** many of its capabilities are unique and unavailable from any other source.





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