ATLAS: The Spatial Intelligence Platform

GridRaster transforms industrial manufacturing, training and sustainment using AI.

WHAT WE DO

ATLAS provides a spatial intelligence platform for rapid digital twin creation, real-time metadata, precise spatial mapping, object localization, and advanced visualization for the Digital Thread.

Key Use Cases

- ✔ Manufacturing & Assembly
- ✔ Maintenance and Operations
- ✔ Robotics & Automation
- ✔ Training & Simulations

GRIDRASTER

Digital Twin Creation

Generate high-fidelity 3D models 10x faster with real-time metadata

Rapidly scan and create 3D digital twins with data fusion, unlocking the potential of real-time metadata and immersive experiences.

☐ Accelerated XR model creation
☐ No need for exotic scanning equipment
☐ Accurate model representation
☐ Metadata Integration for enhanced operational insights

SCAN   WALKAROUND SCAN

AUTO STITCH & SEGMENT

EXPERIENCE

Key Benefits:

Fast and Cost Effective:
Create 3D content 10x faster at 1/10th the cost using affordable commercial devices

Ease of use:
Easy three step process - Scan, Auto-segment and Use, enabling real-time 3D immersive experiences

High Accuracy:
Create 3D models with both geometric accuracy and rich metadata for use in simulation, defect detection, and analysis.

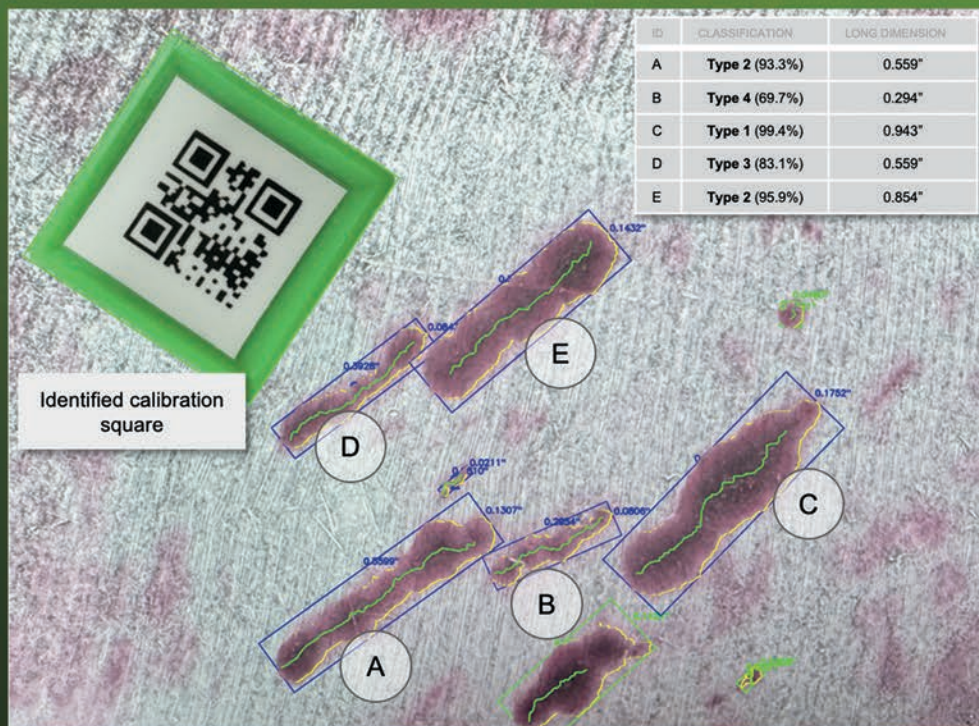**GRIDRASTER**

Digital Twin Creation

Inspection & Maintenance

Enhance speed and accuracy of inspection & maintenance workflows

Leverage the power of AI to detect, identify, measure, and classify defects and anomalies for expedited inspections workflows and eliminate human error.

ID	CLASSIFICATION	LONG DIMENSION
A	Type 2 (93.3%)	0.559"
B	Type 4 (69.7%)	0.294"
C	Type 1 (99.4%)	0.943"
D	Type 3 (83.1%)	0.559"
E	Type 2 (95.9%)	0.854"

Identified calibration square

Automated Inspections
Detect improper installations, damage, defects and anomalies

Active Task Guidance
Provide real-time, step-by-step instruction for expedited workflow completion

Instant Classification
Leverage AI to rapidly identify, measure and cagetorize anomalies and defects

GRIDRASTER
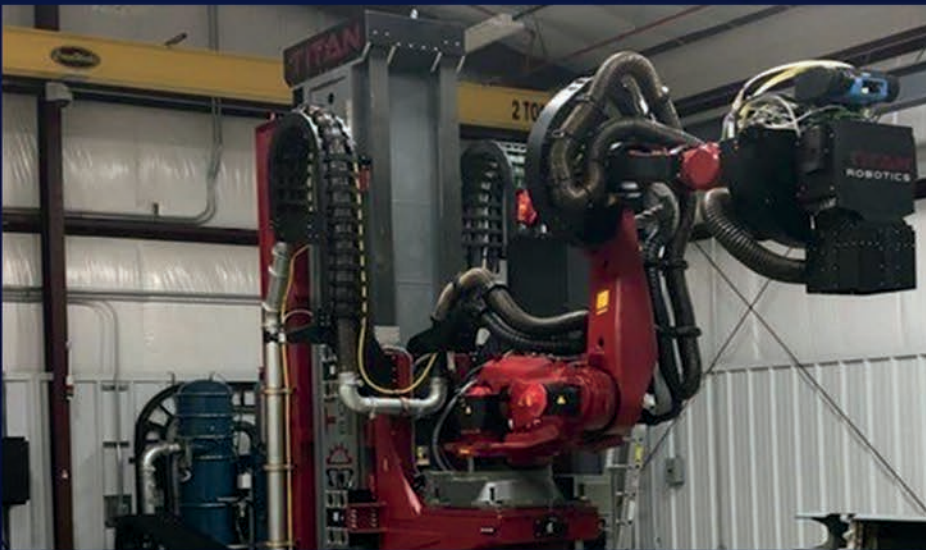
Inspection & Maintenance

Automation & Robotics

Optimize robotic operations with AI-driven spatial intelligence

ATLAS enables fast 3D mapping, segmentation, markerless localization, and intelligent robotic path planning for automated industrial processes.

Key Benefits:

AI-Driven Spatial Mapping
ATLAS creates precise 3D digital twins with COTS devices, supporting real-time object recognition, auto-segmentation, and optimized robotic pathways for scene understanding.

Enhanced Automation
Leverage spatial awareness in harsh environments (like painting and high-speed manufacturing) to automate robotic processes.

Improved Human Manchine Collaboration
With advanced spatial awareness, automated systems are better able to work with humans and avoid injuries and improve productivity.
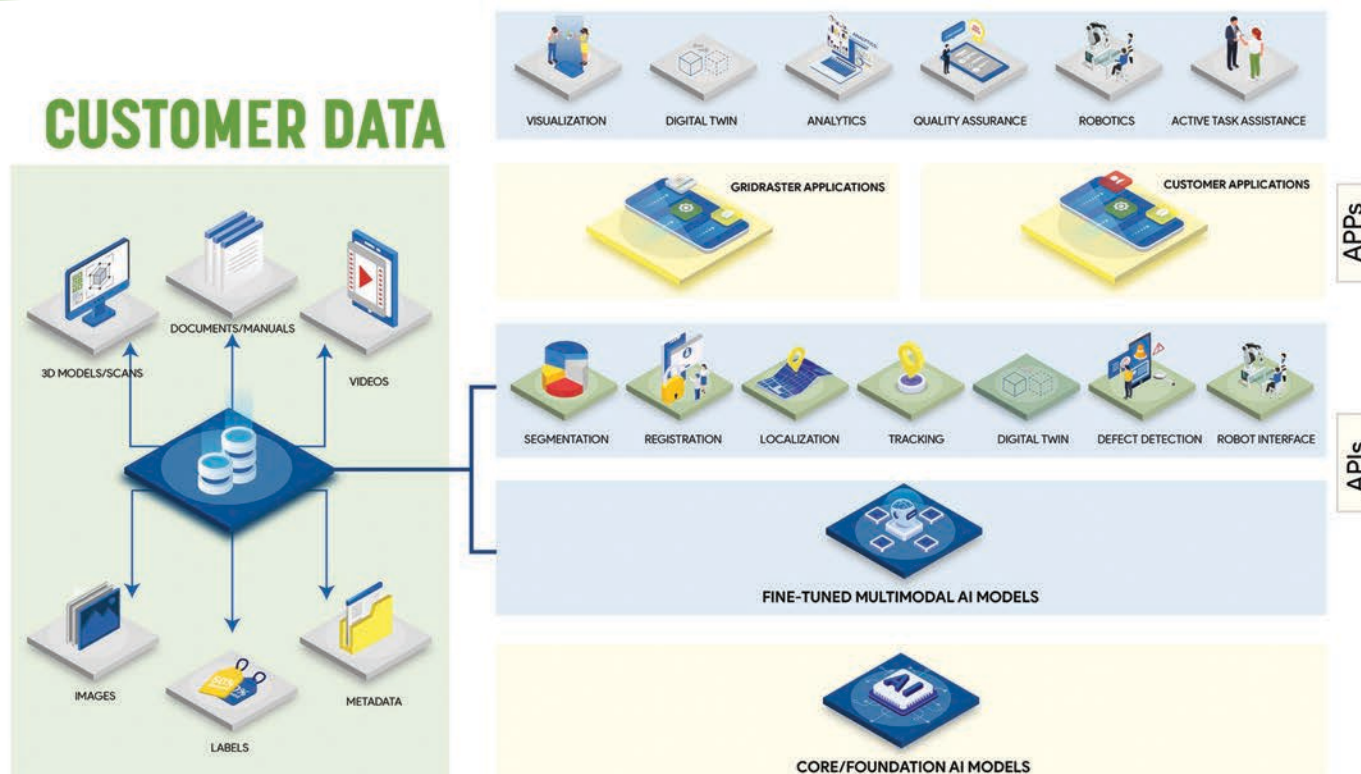
Automation & Robotics

ATLAS: OUR SPATIAL INTELLIGENCE PLATFORM

Re-defining Complex and Dynamic Industrial Workflows using Spatial Intelligence

ATLAS (Automatic Tracking, Localization, and Augmentation System) is GridRaster's next-generation spatial intelligence platform designed to bring precision, automation, and real-time decision-making to complex industrial and defense environments. Built on adaptable AI models and optimized with customer-specific data, ATLAS enables intuitive human-machine collaboration, efficient robotic workflows, and actionable digital twin ecosystems-securely and at scale.

- AI Trained on Your Data (images, videos, 3D scans, etc)

- Multimodal Data Integrate visual, spatial, and textual data

- Modular & API-Driven to integrate with your applications

- Device Agnostic: Vision Pro, HoloLens, iOS, and Android

CUSTOMER DATA

3D MODELS/SCANS · DOCUMENTS/MANUALS · VIDEOS · IMAGES · LABELS · METADATA

VISUALIZATION · DIGITAL TWIN · ANALYTICS · QUALITY ASSURANCE · ROBOTICS · ACTIVE TASK ASSISTANCE

GRIDRASTER APPLICATIONS · CUSTOMER APPLICATIONS · APPs

SEGMENTATION · REGISTRATION · LOCALIZATION · TRACKING · DIGITAL TWIN · DEFECT DETECTION · ROBOT INTERFACE · APIs

FINE-TUNED MULTIMODAL AI MODELS

CORE/FOUNDATION AI MODELS

GRIDRASTER

GRIDRASTER

Industry Awards &Recognition

2024 Defense Manufacturing Technology Achievement Award (DMTAA)

2024 Strategic Funding Increase (STRATFI Award) by the US Air Force

Winner of OSD's Organic Industrial Bases (OIB) Modernization Challenges Award

Advance Robotics for Manufacturing Institute (ARM) Champion Award

2025 xTech Searchlight 9 (US ARMY) Award

"GridRaster is light years ahead of everything else we've seen"

- USAF Subject Matter Expert, 2024

Book a Meeting or Demo today

📞 857-472-9151   🌐 www.gridraster.com   ✉ info@gridraster.com