

Remote Monitoring

Automation for Industrial Infrastructure



Pixel Velocity: Solutions for Industrial Automation

At Pixel Velocity®, we understand how important industrial infrastructure and assets are to our customers. So we deliver versatile software and analytics solutions that enhance operations and asset performance.

Our image processing sensors, video analytics and Event Velocity® software combine to deliver the most comprehensive solution on the market for continuous intelligent remote monitoring at a low monthly service cost. We offer software solutions and sensor systems that deliver real-time imagery and analytics for multi-site monitoring that will automatically detect, discriminate, tag, and track multiple items of interest. Pixel's product solutions augment or replace costly manpower-based operations, providing an attractive ROI while enhancing operational efficiency.

Synchronized image processing sensors are the backbone of an integrated visualization system that generates metadata while continuously monitoring a 360° area of interest. Our advanced algorithms automate monitoring while enhancing the operations around high value assets. Combining improved response times, operational continuity, and increased reliability, our cost effective systems create a significant return on investment.

Improving Operational Efficiency

Our industrial infrastructure is a complex combination of facilities, machinery, instruments, communications networks, power systems and people. Pixel Velocity delivers imagery and analytics for complex energy industry operating environments, visualizing human and machine activity and capturing metadata in searchable formats. Continuous, real-time remote monitoring of critical assets will detect, track, and assess potential process anomalies and provide rapid response options. Our product suite delivers insight in real time to enable aggregated dispatch, informed response, operational efficiency and predictive analysis. System features include:

- **Remote visual assessment** including 3D model-based analytics of the environment.
- **Searchable and actionable alerts.**
- **Geospatial zone rule creation.**
- **Map view** to provide instant context and animated map view feature.
- **Multi-location common operating picture.**
- **Physical measurements** for more reliable analytics.
- **State-of-the-art image** processing architecture.
- **MetaData** generation and archiving



Enhancing Industrial Infrastructure

Types of clients who benefit from Pixel Velocity's sophisticated remote monitoring system include:

- Refineries
- Compressors Stations
- Pipelines
- Storage Tanks
- Offshore Platforms
- Waterside Perimeters/Ports
- LNG Facilities
- Gas Storage Facilities
- Power Plants
- Substations
- Chemical Plants
- Manufacturing

Unique Approach for High Value Assets

- **Synchronized image sensors** providing analytics across multiple areas of interest
- **Real-time processing and dissemination** of high-resolution video
- **Detect Items of Interest** based on foreground/background comparison (vs. frame differencing)
- **Near-field automated detection** and tracking at low cost
- **Synchronized data architecture** (patented) and hybrid hardware and software
- **Global system approach** to ingesting visual data into track processing engine
- **3D model-based analytics** - adaptable template-based discrimination
- **Large Aperture Array** (panoramic view offers superior common operating picture)
- **Legacy and new third-party sensor integration**
- **Metadata engine** provides real-time response/post-event intelligence
- **Field upgradable** and long product life cycle (FPGA architecture)
- **High reliability** extremely low nuisance and false positive rates

Maximizing Operational Performance

Pixel's unique solution is filling a gap in the digital oilfield using imagery metadata to track and trend above ground activity and as a result operators are able to automate operations and enhance data analysis. Product benefits include:

- Capturing real-time site activity and asset performance through integrated, intelligent sensor platforms
- Presenting actionable data to assist in decision making
- Reallocating manpower and workloads to increase efficiencies
- Integrating real-time imagery and data analytics into advanced event management and response protocols that shorten response cycles and provide enterprise-wide intelligence
- Enhancing post-event forensics
- Ensuring reliability and continuity
- Offering high-value data streams that scale to support asset integrity and enhanced revenue continuity



Contact Sales at 734-369-5048 or visit us at www.pixel-velocity.com to learn more.