

# CRITIGEN



## VISUAL PIPELINE

A centralized repository of all linear project-related data throughout the project lifecycle.



## PROGRAM/PROJECT MANAGEMENT PORTALS

Support collaborative solutions providing asset, budget, document, and content management from planning and design to construction and maintenance.

## Critigen Services for the Oil & Gas Industry

Critigen understands the issues and challenges that affect a pipeline company's ability to operate critical assets in the most cost-effective and low-risk manner, such as:

- **Regulatory Environment:** Requirements are becoming more complex and challenging. Increased regulatory reporting requirement to the Federal Energy Regulatory Commission and US Department of Transportation (DOT) as well as increased fines are driving up operating costs.
- **Aging Infrastructure:** Many pipelines are near or past their original intended end-of-life. This increases the cost of maintenance and corrosion detection, and risk.
- **Pipelines Changing Hands:** Many pipelines have been acquired and divested over time, leading to a loss in critical asset data with expenses incurred when recollecting data for maintenance and regulatory compliance purposes.
- **Construction Complexities:** With the number of employees and contractors involved in building or modifying a pipeline, accurately collecting critical GIS and asset data needed for reporting and maintenance is a monumental challenge.

Critigen can help solve these challenges through the use of location intelligence and visualization, effective data collection, analysis and reporting, intelligent asset management, and unique Capital Project management processes and systems and superior engineering capabilities. Critigen is available to physically capture data, compile, and integrate information from all external sources, provide quality control and map the outcomes in near real-time for reporting and visualization purposes. A few of Critigen's services for the oil and gas industry include enterprise GIS development and analysis, CAD system integration and conversion, imagery assimilation and Base Mapping, Civil and Pipeline Surveying and Data Workflow development and standards implementation.

### Providing a Deep Knowledge Base

With over 500 global resources, Critigen's teams of IT and Environmental experts represent knowledge over a vast variety of leading technology.

### Environmental Services

- Environmental Information Management Systems (EIMS)
- Regulatory Compliance
- Spill remediation
- Fugitive emissions monitoring
- Risk assessments
- Data collection and interpretation

### Operations & Maintenance

- Asset Mapping, imagery & GIS
- Integrity & risk management
- O&M audits
- Leak detection & pipeline integrity
- Third party damage prevention

### Planning & Permitting

- Route selection & ROW
- Permitting services
- HCA detection
- Alignment sheets

### Engineering, Procurement and Construction Management

- Program and project management
- Cost estimating
- Surveying & mapping
- CAD Drafting

### Current Clients

- Boardwalk
- Chevron Port Arthur
- Clean Line Energy
- Colonial Pipeline
- Conoco Phillips
- Denbury
- Enron Corporation
- Geofields, Inc.
- Holly Energy Partners
- Lake Charles Express
- Oregon LNG
- Pacficorp
- Spectra Energy
- Terra-Gen Power
- Union Pacific Railroad
- Valero

## DOMAIN EXPERIENCE FOR PROVEN SOLUTIONS

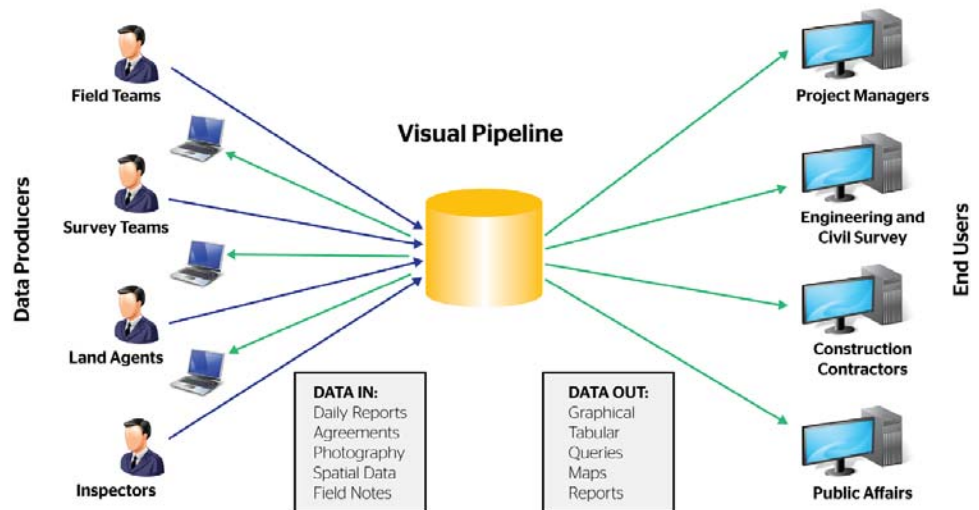
For nearly 20 years, Critigen has developed a unique knowledge and understanding of the needs for all Geospatial, GIS and Survey & Mapping needs in the oil and gas industry, and provides full life-cycle solutions with proven expertise in areas such as data collection and management, asset management, regulatory compliance, and enterprise GIS implementation support.

## FULL LIFECYCLE DATA MANAGEMENT

Critigen is a global leader in spatial data management, information technology integration, geospatial consulting and IT outsourcing for the oil and gas industry. Critigen helps our clients meet Title 49, Subtitle B, Chapter I, Subchapter D, Part 190-199 of the US DOT Pipeline and Hazardous Materials Safety Administration (PHMSA). Critigen also leverages Pipeline Open Data Standards (PODS) industry data model as a central data repository to adequately and effectively manage all asset data to design and implement highly-complex projects involving every facet of data from Pipeline Integrity Management to Data Management and Mapping. We drive positive financial results and enterprise collaboration across the enterprise—whether it is upstream exploration and production, midstream pipeline management, or downstream location intelligence.

## CENTRALIZED INFORMATION FOR TEAM COLLABORATION

Our solutions serve as a centralized, highly-accessible repository of all related data throughout the route selection, planning, Right-of-way (ROW) acquisition design, and permitting process.



Critigen has a global presence and experience in the US, Europe, Middle East, Korea, Pacific Islands and Russia with both technology consulting and application hosting. Our highly reliable, up-to-date computing infrastructure available 24/7 from world class redundant Enterprise Operations Centers (EOC) and data centers provide heightened security of data and disaster recovery deliver to clients on a global level.

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