

## Summary

IntelaTrac enables Upstream Oil & Gas producers to achieve reliable, safe and profitable operations through the consistent execution of all field tasks. IntelaTrac fosters a culture of asset stewardship and accountability through a standardized approach to work force management.

## Business Value

- Provides a framework for driving sustainable operational excellence
- Enforces consistent execution of best practices
- Provides a cost-effective strategy for monitoring remote, non-instrumented assets
- Key success factor for equipment reliability
- Immediately guides new field workers in best practices

# IntelaTrac for Upstream Oil & Gas

## INDUSTRY CHALLENGES

- Safety and regulatory compliance
- Accurate production data
- Unscheduled downtime
- Controlling maintenance costs
- Personnel turnover & training costs
- Inefficient paper-based data collection



## INTELATRAC MOBILE SOLUTIONS DELIVER

### Better safety and regulatory compliance through:

- Enforcement of approved operating and safety procedures
- Validated location tracking which helps ensure that required checks have been performed
- Documentation of safety and regulatory related inspections and activities

### More accurate production data through:

- Electronic data collection and validation
- Automatic data transfer to production accounting applications

### Less downtime and reduced maintenance costs through:

- Consistent enforcement of accepted equipment and process operating procedures
- Early detection of equipment degradation based on approved criteria
- Field execution of approved contingency procedures automatically triggered by "as found" conditions – helping eliminate costly secondary damage and lost production

### Improved knowledge transfer and reduced employee training costs:

- Capture of institutionalized best practices from experienced field workers
- Immediate guidance and additional reference information availability when a problem is detected
- The ability to create step-by-step procedures as part of on the job training

### Improved field worker efficiency through:

- Elimination of slow, less accurate, paper-based data collection
- Immediate filtering of manually collected data to minimize data entry errors
- On-board guidance and attached documentation – reduces trips back to the office

### Tailored solution through:

- IntelaTrac Oil & Gas module that provides standard AGA and other industry calculations for more accurate production data collection
- Tieto Energy Components (EC) integration – enabling IntelaTrac to act as a mobile platform for this popular production accounting application

## UPSTREAM OIL & GAS APPLICATIONS FOR INTELATRAC

Oil & gas production fields are often in remote locations. Offshore production platforms are even more challenging environments. Intelatrac helps ensure that the field workers conduct operator rounds, inspections and reliability checks in a thorough and fully verifiable manner.

Intelatrac helps deliver the data you need to keep your assets productive and operating at peak efficiency. Your field workers benefit since they have more information at their fingertips and no more entering data into spreadsheets. Intelatrac even helps field workers respond more consistently and effectively to field issues through predefined follow-up actions triggered automatically by current operating conditions.



### Operator Rounds

Intelatrac's Procedure Manager allows experienced field personnel, not programmers, to create operator rounds and inspections. Intelatrac can:

- Accelerate the execution of Standard Work Procedures (SWP) with time, date, location and operator verification
- Gather important operating data such as temperatures, pressures, flow rates, lube oil levels, and bearing vibration
- Detect off-nominal operating conditions and provide directed advice messaging to field workers
- Collect production totals, aggregate them and transfer them to your production accounting system – improving accuracy and timeliness

### Inspections

To maintain the highest possible production you need accurate and timely data from your equipment and process. Intelatrac is the ideal tool for your field inspection needs. Intelatrac can facilitate:

- Critical and auxiliary equipment inspections
- Inspections of wells and their support facilities
- Safety inspections
- Environmental inspections

### Operator Driven Reliability (ODR)

Intelatrac provides a powerful tool for implementing an ODR program. Multi-trade field workers equipped with Mobile Intelatrac can capture:

- Bearing vibration and temperature readings
- Differential seal pressures (seal leak detection)
- Lube oil samples (documentation/validation)
- Preventive Maintenance (PMs) tasks on all types of well and production equipment

### Equipment Start Up/Shutdowns

Intelatrac can help field workers properly start up or shutdown well equipment or processes. With Intelatrac you can:

- Enforce sequencing of work tasks with location verification
- Provide field access to digital copies of equipment drawings and procedures
- Collect field data and records of all field steps
- Deliver web based management reports



## UPSTREAM OIL & GAS MODULE

Production tracking is a key issue and involves complex calculations for accurate results. The IntelTrac Oil & Gas Module helps mobile workers capture accurate production totals. In addition, IntelTrac's enforcement of best practices and operator-driven reliability capabilities makes delivers a powerful mobile solution for today's energy producers – either on land or out at sea. With the IntelTrac Upstream Oil & Gas Module, you receive:

**Integration of Production Data** – tags production data and helps ensure the proper aggregation of individual well totals.

**Production Data Calculation Function** – new function used to totalize all production data for a given day for a specific area (oil field) or storage tank (gas). This saves valuable field worker time and improves data accuracy.



**"Round Chart" to Absolute Pressure Calculation Function** – new function used to convert gas measurements from "round charts" to a volume.

**AGA 3 Calculation Function** – gas industry standard calculation for converting raw gas readings to gas volume (American Gas Association's Report no. 3 "Orifice Metering of Natural Gas and Other Related Hydrocarbon Fluid").

**Tank Volume Calculation Functions** – functions for automatically calculating the volume of common tank or vessel types including: Bullet, Cylindrical, Spherical and Ellipsoidal vessels.

## INTEGRATION

IntelTrac provides a mobile framework which can deliver a "mobile" capability to many plant systems such as historians, CMMS/EAM systems and others. Procedures can be automatically created by these plant systems using the IntelTrac Extensibility Software Development Kit (SDK). Now you can deliver information collected by mobile workers directly to most plant systems and extend the application to meet changing requirements.

**Historians:** OSIsoft PI Historian, Honeywell PHD, AspenTech IP21, Wonderware Historian

Use the IntelTrac mobile framework to "mobilize" your plant historian. Stranded asset data collected by Mobile IntelTrac can be easily added to your historian's data record. Now you have a complete view of all of your plant's assets.

**CMMS/EAM Systems:** Avantis, SAP PM, IBM Maximo

IntelTrac can generate work requests and communicate these back to the CMMS/EAM system – saving time and effort by field operators and getting problems fixed faster.

**Wonderware System Platform:** IntelTrac can exchange data with Wonderware System Platform; delivering stranded asset data to a System Platform application or receiving historical data for field viewable trends.

## INTELATRAC SYSTEM OVERVIEW

IntelaTrac is an enterprise-level software and hardware solution that delivers mobile workforce management to the Oil & Gas industry.

## SERVER COMPONENTS & INTEGRATION SOFTWARE

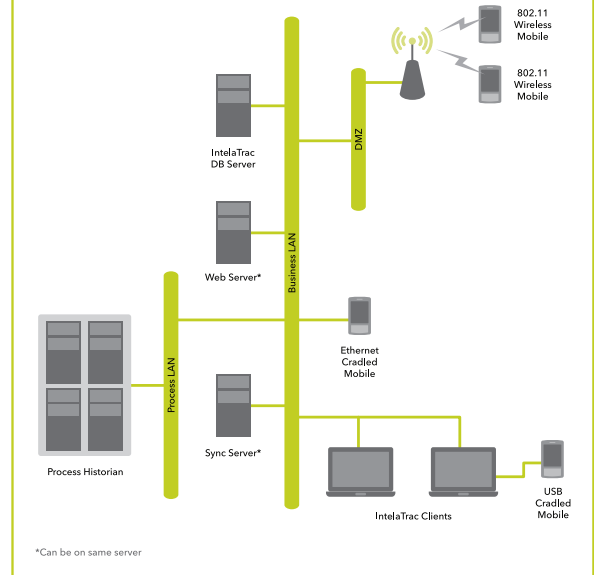
**IntelaTrac Database Server:** Microsoft® SQL Server based database management server

**IntelaTrac Application Server:** Integration Server (synchronization, scheduling and extensibility)

**IntelaTrac Report Server**

**Integration Modules:** Wonderware System Platform, Wonderware Historian, InFusion Control and Foundation Editions, Avantis, SAP PM, IBM Maximo, OSIsoft PI System, AspenTech IP21, and others

### Typical Configuration



## INTELATRAC DESKTOP CLIENTS

- Intelatrac Procedure Builder
- Scheduler Manager
- Intelatrac Auditor Plus
- Administration and Security
- Intelatrac Web Reporting

## INTELATRAC MOBILE CLIENTS

Mobile Intelatrac is a Windows Mobile client that provides a "best in class" browser-style user interface for Intelatrac procedures and data collection tasks on mobile devices.

## MOBILE DEVICES & PERIPHERALS

IntelaTrac supports a broad selection of hazardous environment rated handheld computers from Motorola/Symbol, Intermec, Bartec and others. Supported peripherals include RFID and barcode readers, vibration probes, temperature guns and wireless communication devices.

## LEARN MORE

Visit the Invensys Operations Management website, [iom.invensys.com](http://iom.invensys.com), to learn more about Intelatrac and our complete line of mobile solutions. There is also a complete list of authorized distributors who can show your team how Intelatrac can transform your business.



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