

Summary

IntelTrac enables refiners to achieve safe, reliable and profitable operations through the consistent execution of all field tasks. IntelTrac 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
- Helps ensure regulatory compliance for both worker safety and environmental impact

IntelTrac for Refining

INDUSTRY CHALLENGES

- Safety and regulatory compliance
- Consistent execution of best practices
- Unscheduled downtime
- Controlling maintenance costs
- Personnel turnover & training costs
- Inefficient paper-based data collection



INTELTRAC - LEADER IN REFINING

IntelTrac grew out of the needs of refiners over 10 years ago to help ensure that field workers perform operator rounds, equipment inspections, safety and environmental checks in a thorough and fully verifiable manner. IntelTrac is used in:

- 7 of the top 10 largest integrated oil & gas companies
- 6 of the top 12 largest global refiners
- Over 65 of the top 100 U.S. refineries

INTELTRAC MOBILE SOLUTIONS DELIVER

Better safety and regulatory compliance

- Enforcement of approved operating and safety procedures
- Location tracking - helping validate that required checks have been performed
- Easy documentation of safety and regulatory related inspections and activities

Less downtime and reduced maintenance costs

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

- Elimination of slow, paper-based data collection with more accurate mobile devices
- Immediate filtering of manually collected data to minimize data entry errors
- On-board guidance and attached documentation - reduces trips back to the office
- Real-time modification of operator work flow, based on key internal or external business or operating conditions

REFINING APPLICATIONS FOR INTELATrac

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, without 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 on non-instrumented equipment including: temperatures, pressures, flow rates, lube oil levels, and bearing vibration
- Detect off-nominal operating conditions and provide "focused advice" messaging to field workers
- Collect energy usage totals (electrical & steam), facilitating better energy management

Inspections

Field inspections are essential to catch mechanical problems early before they adversely affect refinery production or worker safety. IntelaTrac is the ideal tool for your field inspection needs and can facilitate:

- Critical and auxiliary equipment inspections including: compressors (turbo and recip), heat exchangers, motors, pumps, valves, fans, tanks, seals, and high voltage electrical equipment
- Safety inspections/audits including: fire safety equipment (fire extinguishers, hydrants, self contained breathing apparatus) and safety audit checklists
- Environmental inspections/audits including: leak detection and repair, wastewater checks
- Energy Usage inspection/audits including: electrical power, steam

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 (PM) tasks

Equipment Start Up/Shutdowns

IntelaTrac can help field workers follow standardized start up or shutdown procedures for equipment and processes. This helps ensure worker safety and reduce equipment turnovers.

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 record all field steps
- Deliver web-based management reports so management has enhanced visibility to performed field tasks



INTEGRATION

IntelaTrac provides an extensible mobile framework which can deliver a “mobile” capability to many plant systems such as historians, CMMS/EAM systems, Invensys Refinery Offsites and others. Procedures can be automatically created by these plant systems using the IntelaTrac 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: Wonderware Historian, OSIsoft PI Historian, Honeywell PHD, AspenTech IP21.

Use the IntelaTrac mobile framework to “mobilize” your plant historian. Stranded asset data collected by Mobile IntelaTrac 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.

IntelaTrac 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: IntelaTrac can exchange data with Wonderware System Platform, delivering stranded asset data to a System Platform application or receiving historical data for field-viewable trends.

Invensys Refinery Offsites: Manage your Offsites operations more safely and efficiently with IntelaTrac which integrates field operator instructions and information with the Invensys expert system-based Movement Automation System (MAS).



INTELATRAC SYSTEM OVERVIEW

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

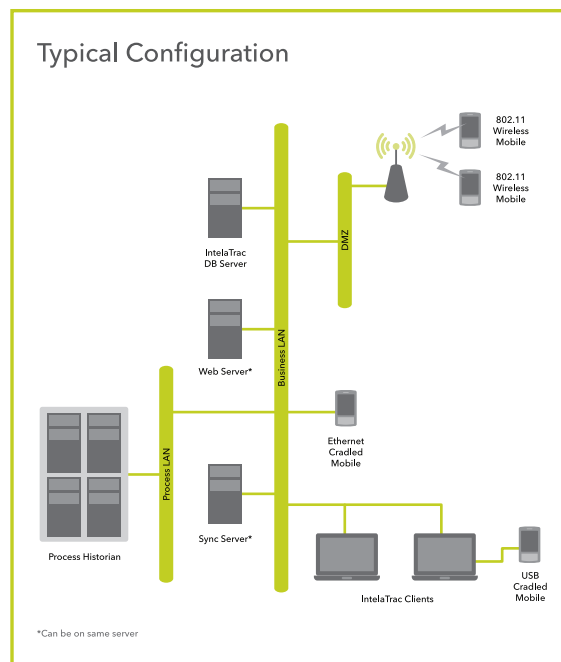
SERVER COMPONENTS AND INTEGRATION SOFTWARE

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

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

IntelaTrac Report Server

Integration Modules: Software modules that integrate Invensys and third party enterprise and plant systems to IntelaTrac (Wonderware System Platform, Wonderware Historian, Avantis, InFusion Control and Foundation Editions, Invensys Offsites Movement Automation System, SAP PM, IBM Maximo, OSIsoft PI System, AspenTech IP21, and others).



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 ruggedized 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, 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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