



## An Introduction to Wonderware IntelaTrac<sup>®</sup>

*The industry's leading Mobile Workforce and Decision Support System.*

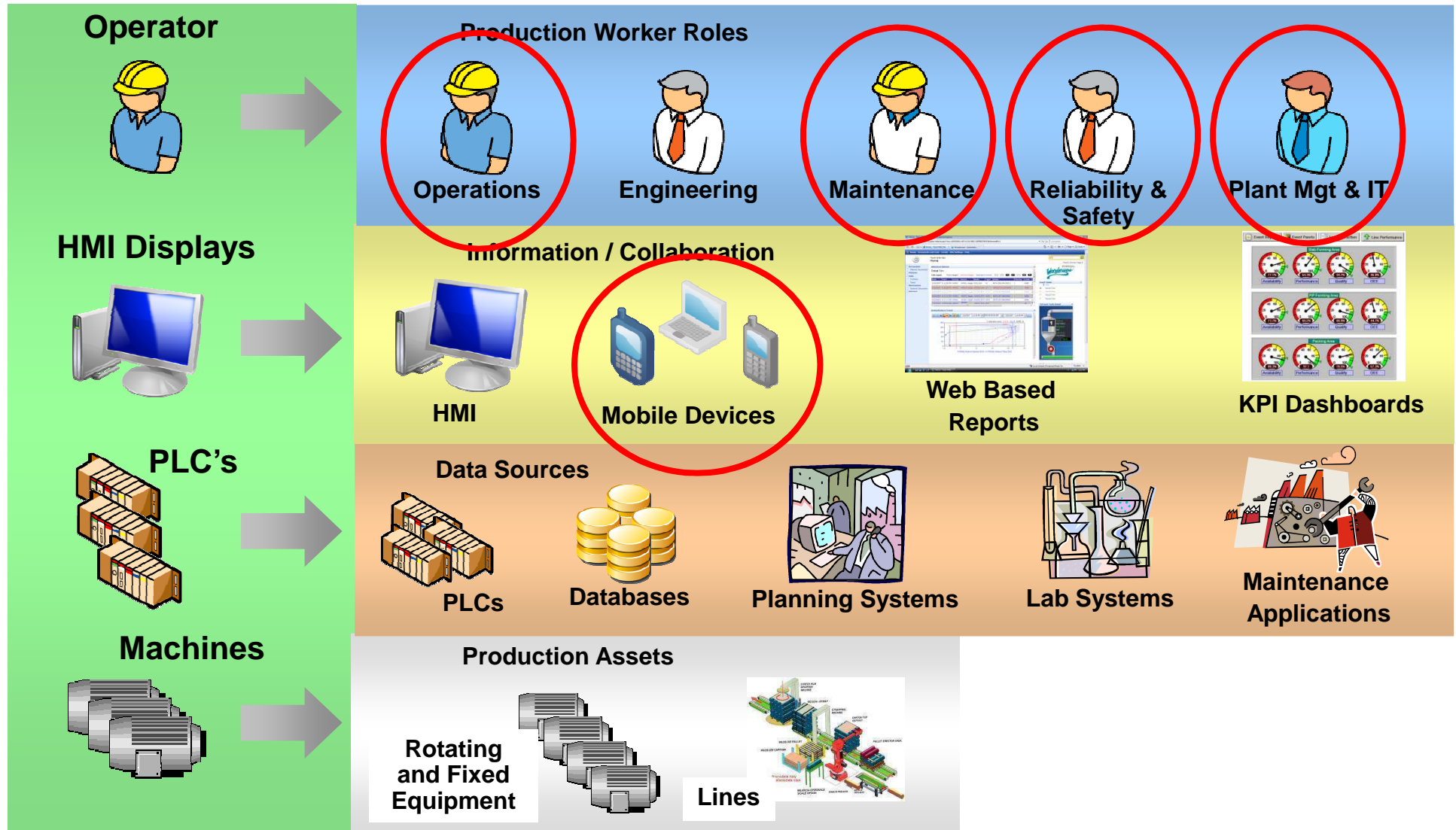
# Collaboration and Decision Support to Operations Management



Software Solutions for Real-Time Success™

## The 1990's

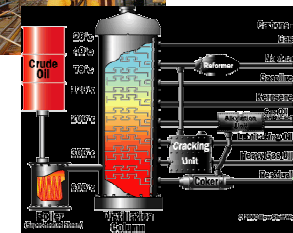
## The 2000's



# Managing People, Assets and Processes

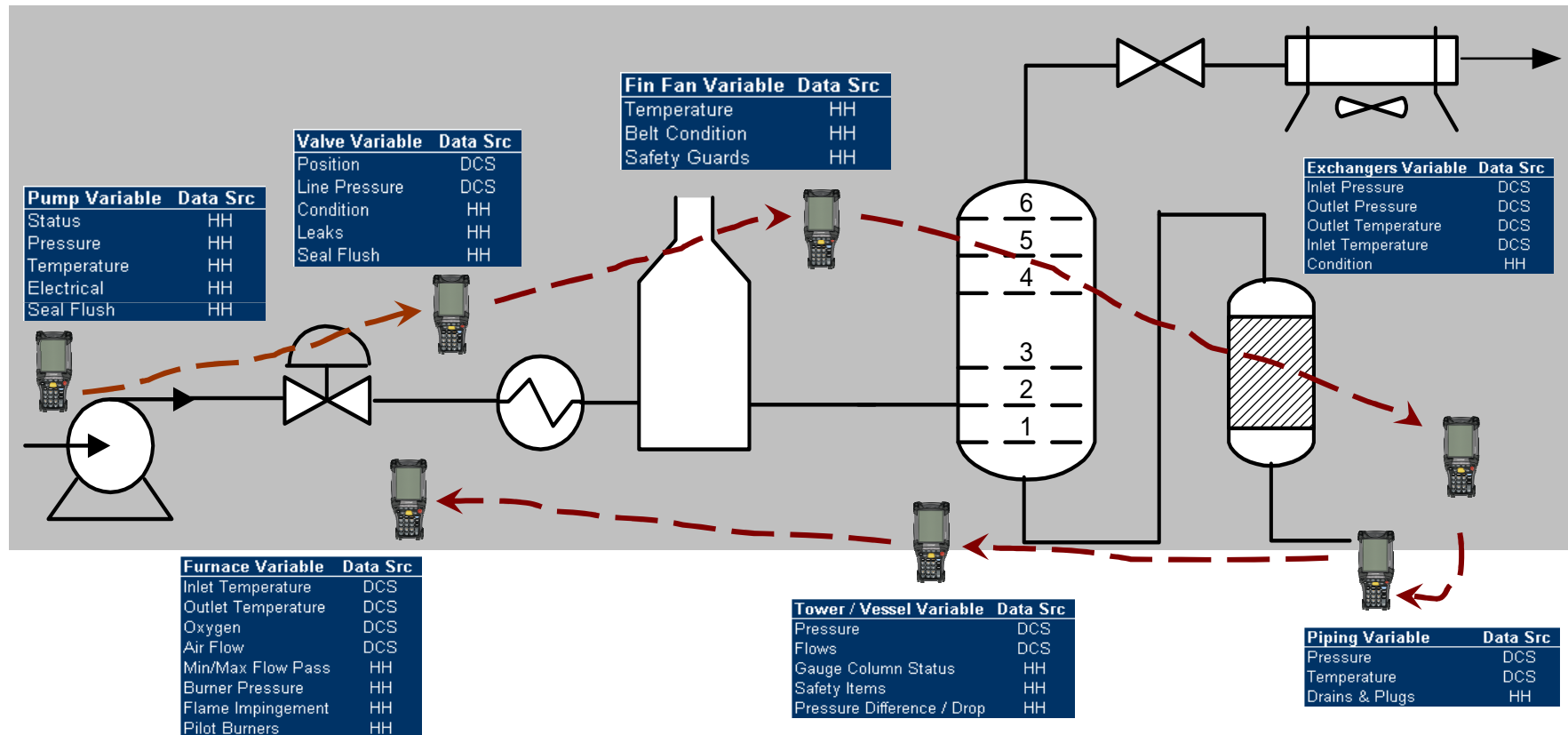
IntelaTrac enables companies to manage their “stranded assets” ...

People	Field Workers and Service Technicians
Plants	Equipment / Machinery
Processes	What they Make and Do



# Capturing Stranded Data

Typically 40-60% of assets in a plant are non-instrumented



IntelaTrac solution is a necessity even in newly built, fully instrumented manufacturing plants

# What Industry Challenges are Customers Facing?

- ▶ Many plants struggle for lack of a clear operating priorities
  - business management must define an operating plan
  - share the vision
  - hold employees accountable to execute the plan
- ▶ Customers struggle with the human performance elements and cultural change issues
  - new ways to work
  - new technology deployment
  - real-time enterprises
  - aging workforces
- ▶ Other management issues
  - non-instrumented equipment monitoring
  - plant equipment reliability
  - safety and regulatory inspections
  - procedure (SOP) management and paperless work management
  - task management and workforce scheduling optimization
  - plant maintenance turnaround management

**Need to release final candidate by noon?**



# Transforming Work Processes

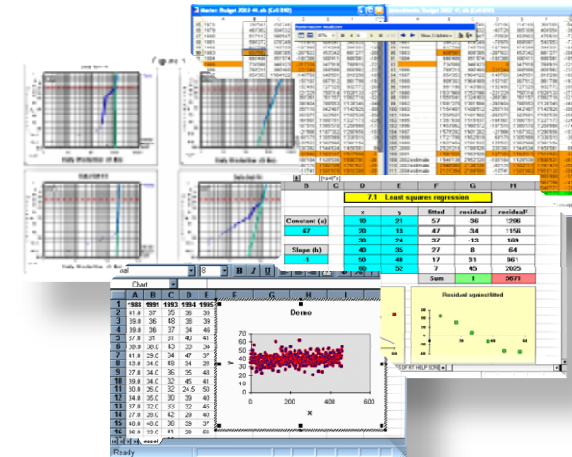
## Low Performers



Paper based Work Processes  
without Historized Data



## High Performers



Automated Work Processes with  
Accountability and Stewardship

Mobility is not about collecting data---it is all about using technology to transform and optimize stranded assets (e.g. non- instrumented equipment, remote workers, and work processes management)

# InelaTrac Mobile Applications and Positioning

- ▶ Plant Safety
- ▶ Operator Driven Reliability
- ▶ Condition Monitoring
- ▶ Remote Decision Support
- ▶ Stranded Asset Management
- ▶ Paperless Maintenance
- ▶ Workforce Scheduling and Collaboration
- ▶ Integrated Business Process and Task Management
- ▶ Extends Condition Monitoring Offerings - Mtelligence



Wireless applications will see greater deployment because of the ability to enable new and better ways of operating manufacturing plants

– ARC Advisory Group

# Improve Operational Reliability and Asset Availability

Operations

Maintenance

IT & Infrastructure



**Improve asset utilization** by operating non-instrumented equipment within safe/design envelopes and abnormal situation management



**Reduce maintenance cost** by detecting pre-cursors to equipment failures, trouble shooting, responding, and reducing secondary equipment damage



Proactively address **health, safety, environmental, and regulatory requirements** by **assuring compliance** with operational stewardship



**Capture Knowledge** and **institutionalize best practices** by standardizing approach to procedure management and equipment strategies

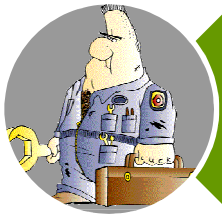


# More Effective Use of Maintenance Resources

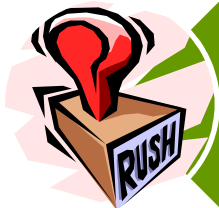
Operations

Maintenance

IT & Infrastructure



Maximize **maintenance effectiveness** through condition based monitoring and utilization based maintenance



Reduce **maintenance cost** through scheduling optimization and reduction of emergency break-in work



Reduce **paperwork and errors** by automating remote work notifications and paperless work management

# Consistent IT Environment with Standard Resources

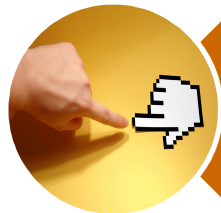
Operations / Mngt

Maintenance

IT & Infrastructure



**Standard** Microsoft based platforms and technology



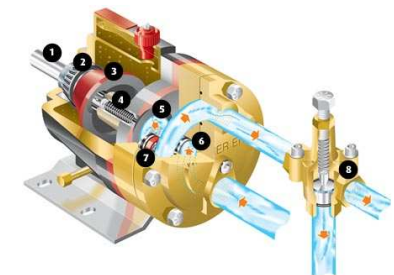
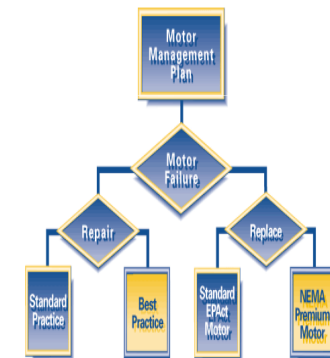
**User generated** content – no programming required



SOA Web Services and Integrations to **existing** applications

# Wonderware IntelTrac Defined

- ▶ IntelTrac manages the **processes and procedures** used to ensure that organizations consistently execute all field tasks required to achieve **reliable** operations.
  - IntelTrac provides a Task Management and Performance Monitoring System providing **stewardship and accountability**.
  - IntelTrac mobile applications provide **contextual** information and **user guidance** to help drive reliability and improve performance
  - IntelTrac tightly couples enterprise applications with field workers and **actionable tools** to implement and sustain reliable operations



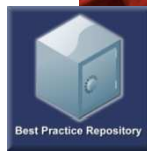
# IntelaTrac Applications and Integrated Workflow Capabilities

## System Administration

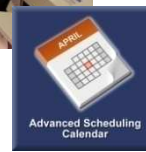


User Administration  
 Device Management  
 System & Data Center  
 Management

## Super Users



Procedures  
 Versioning  
 Scheduling



## Mobile Workers



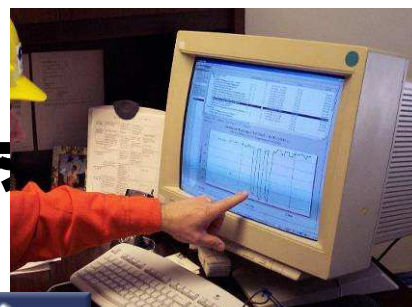
Operator Rounds  
 Data Collection  
 Work Requests

## Management



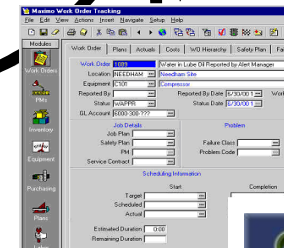
Exception Reports  
 Process/Performance KPI's  
 Email Notifications

## Supervisors



Round/Route Approval  
 Performance Monitoring  
 Exception Management  
 Shift Handover/Logs

## Enterprise Integration



CMMS / Reliability  
 D7i, JDE, Maximo

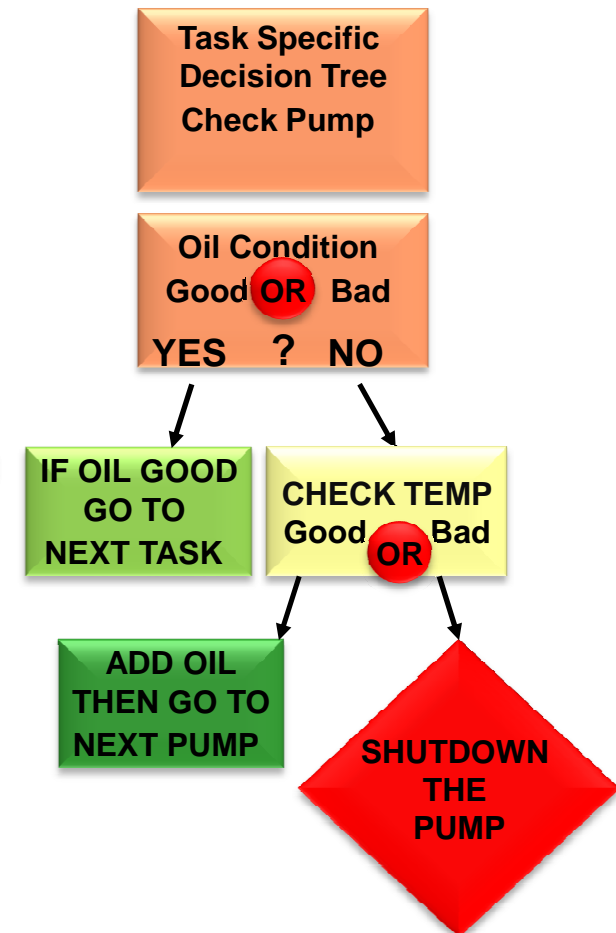
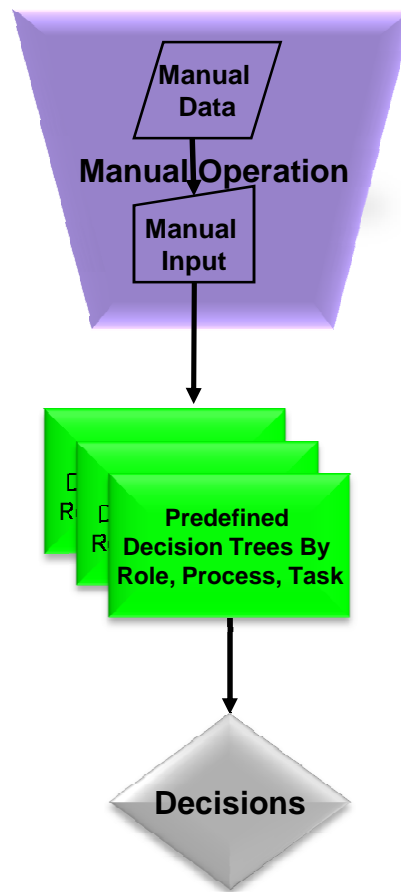
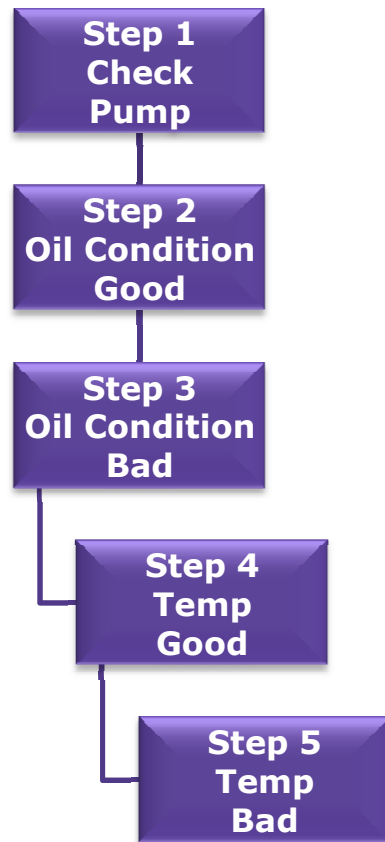


Process Historian  
 PI, InSQL, etc.

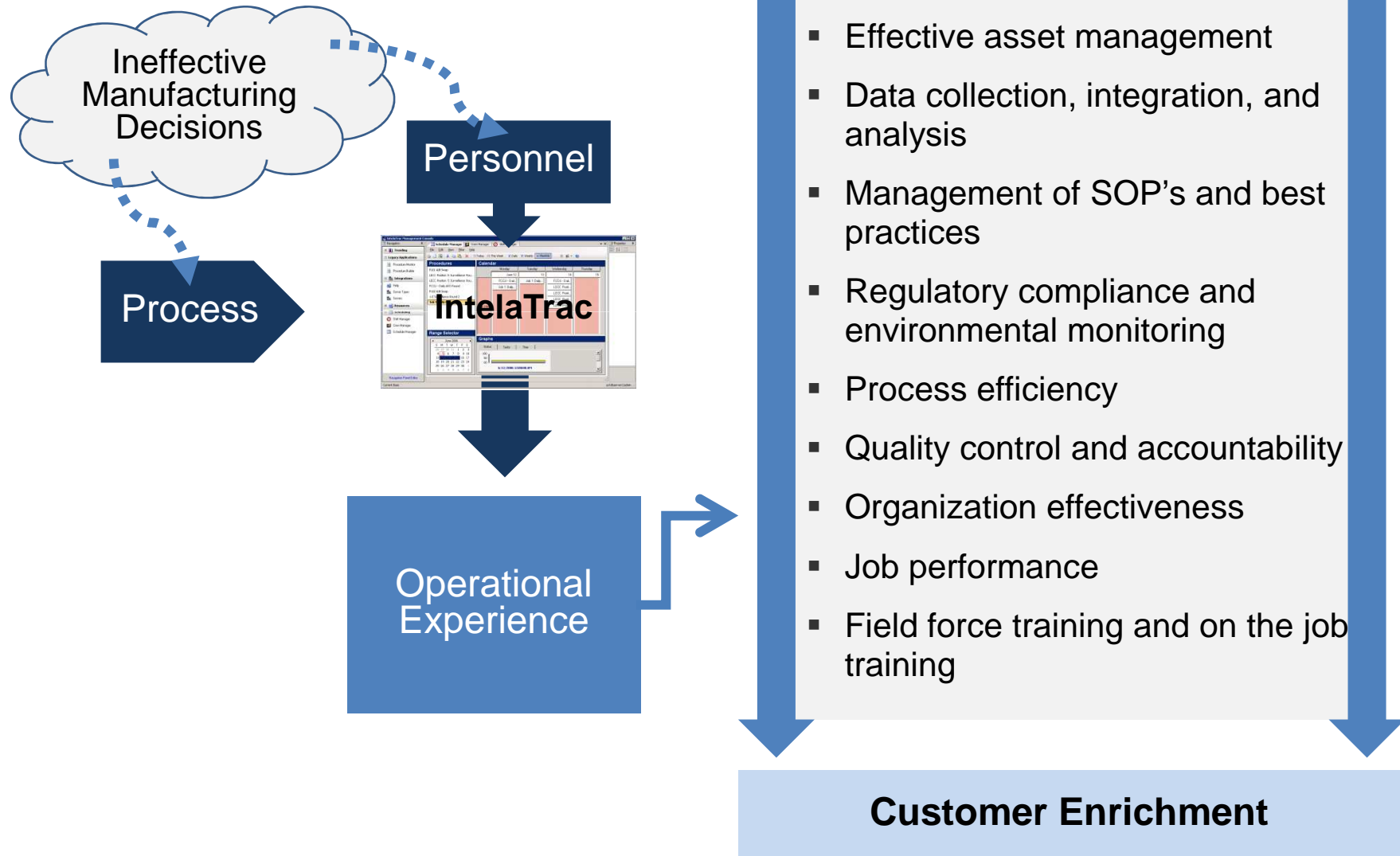


# Enabling Intelligent Workflow

## Linear Procedures **VS** IntelaTrac Mobile Workflow Approach



# IntelTrac Value Proposition



# Typical Benefits Case

Key Performance Indicators	% Improvement	Key Factors
Production Efficiency	0.5-1%	Reduction in production downtime/slowdowns
Reduced Maintenance costs on select list of assets**	25-30%	Predictive maintenance of rotating equipment and assets in harsh environments
Increased Workforce Productivity	5-10%	Electronic paperwork, transfer of some PM to Operations
Training, Knowledge Management, Permitting	5%	Improved training processes, improved best practices, reduced mean time to permit
Production Arbitrage	TBD	Improved decision support with access to non-instrumented data and instant messaging to field

\*\* 1-2 % on total maintenance budget for all assets in company budget

# Mobile Workforce & Operations Management



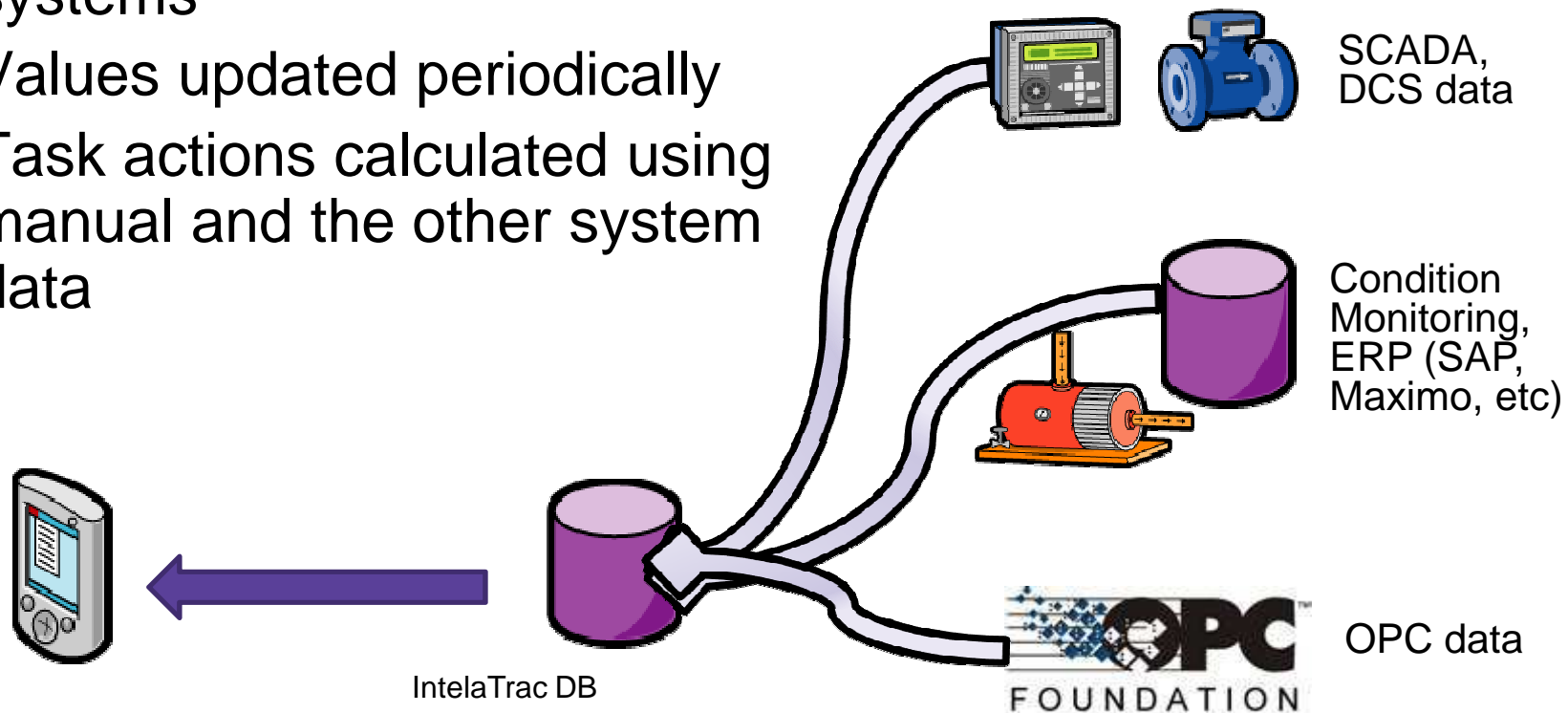
## IntelaTrac helps organizations:

- Set and align global priorities
- Engage mobile workforces
- Assess and manage performance
- Standardize, sustain, and maintain operations
- Improve operating results through higher asset availability, reduced maintenance cost, improved safety, compliance, and operational reliability



# Integration and trending with Real-time Systems

- ▶ Utilizes “near real-time” data from other decision support systems
- ▶ Values updated periodically
- ▶ Task actions calculated using manual and the other system data

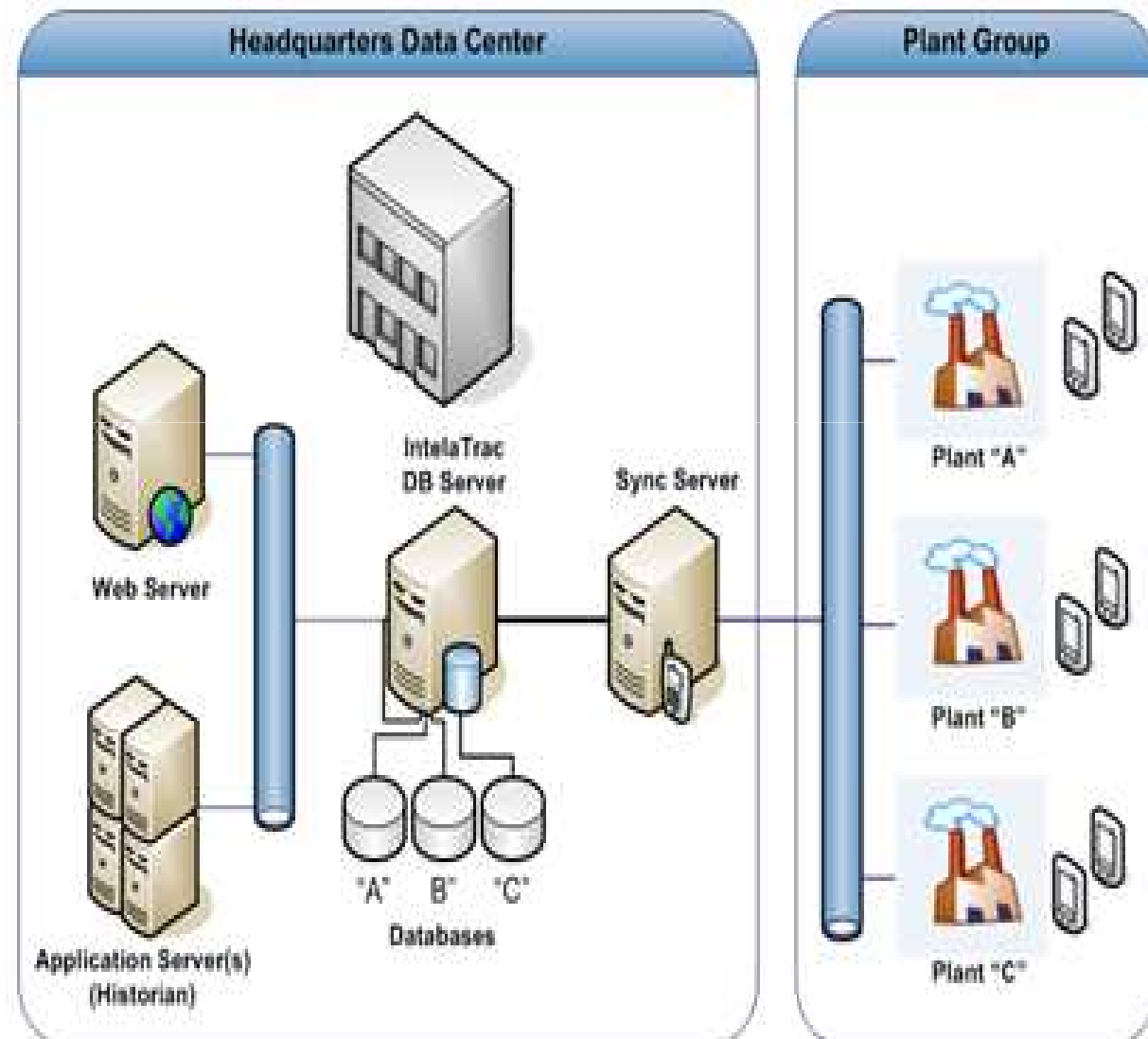


# Enterprise Ready



Software Solutions for Real-Time Success™

- ▶ Multi Time Zone support
- ▶ International Language Support
- ▶ Support for Data Centers
- ▶ Single Sync Server supporting multiple sites
- ▶ Single Integration Server supporting multiple sites



# RFID Asset Tracking

What Will We Track? – How Will We Track It? – Can We Validate It?



RFID Tag Mounted on Equipment

Field Name	Count	Value
asset_number	35	PL02-01-3133-CL-4140B
asset_description	30	Resid Column B
last_repair_date	1	10/25/2002
Inspector	15	John Smith
hazard_id	11	
Manufacture	14	Chicago Bridge & Iron
Model_Number	14	CL145-B5

- ▶ Task Validation - ensures regulatory compliance (EPA/ISO/CFR) (e.g. cannot be falsified as is the case with bar codes)
- ▶ Cost effective - durable passive RFID tags can last up to 10 years (e.g. survives painting, corrosion, sand blasting etc.)
- ▶ Can read/write data (up to 1088 bits) to identify EAM/CMMS #, OEM #, location #, warranty/repair status etc.

# BlueTooth Support and Integration with Peripheral Devices

- Inferred Temperature Guns
- Pyrometers
- Vibration Probes
- Non-Destructive Test (NDT)
- RFID

Adding:

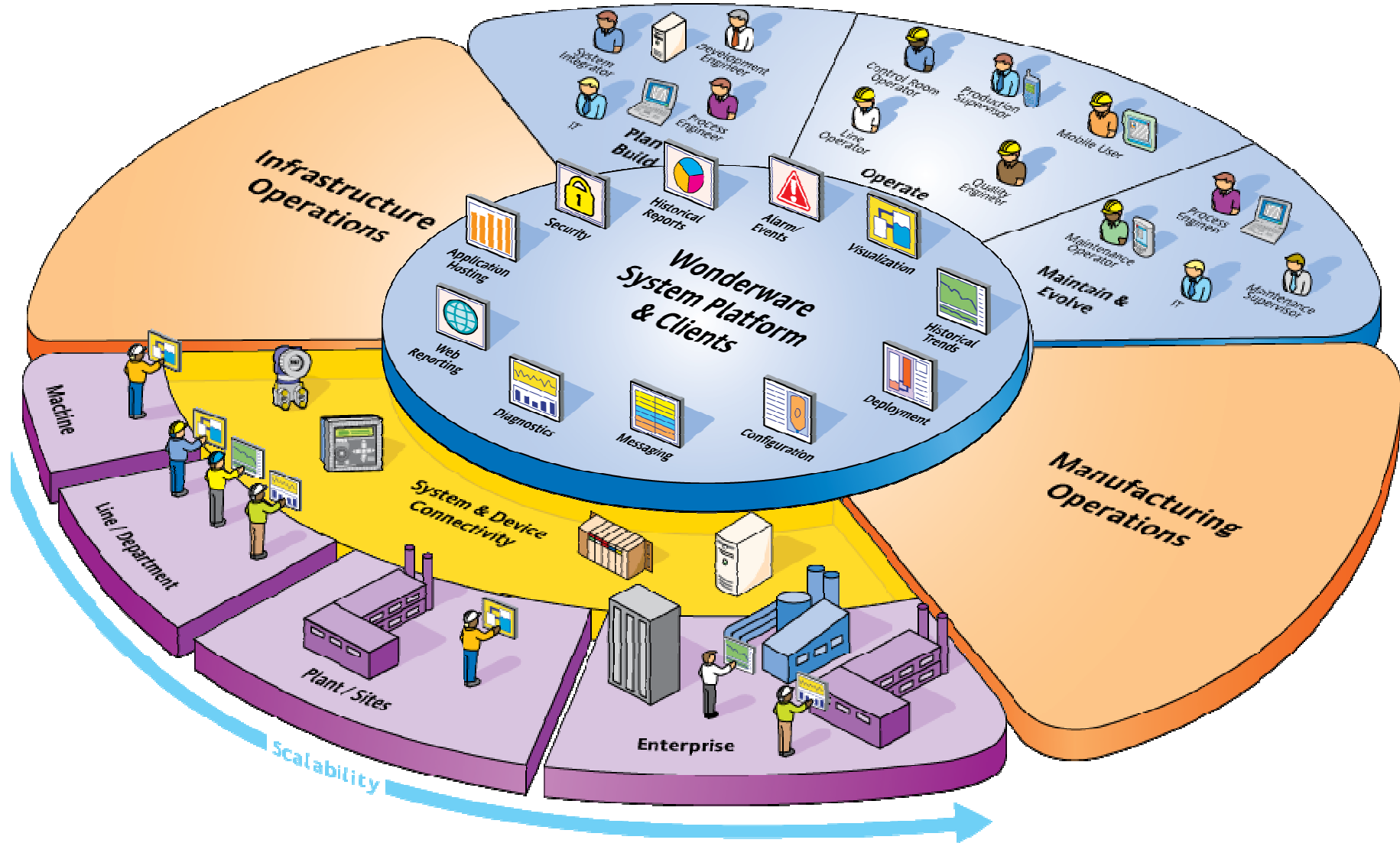
- GPS
- Acoustical Monitoring



# Integration with System Platform



Software Solutions for Real-Time Success™



# Integrating WW Mobile Solutions (IntelaTrac) with System Platform Extends Value



1

## Lower Costs

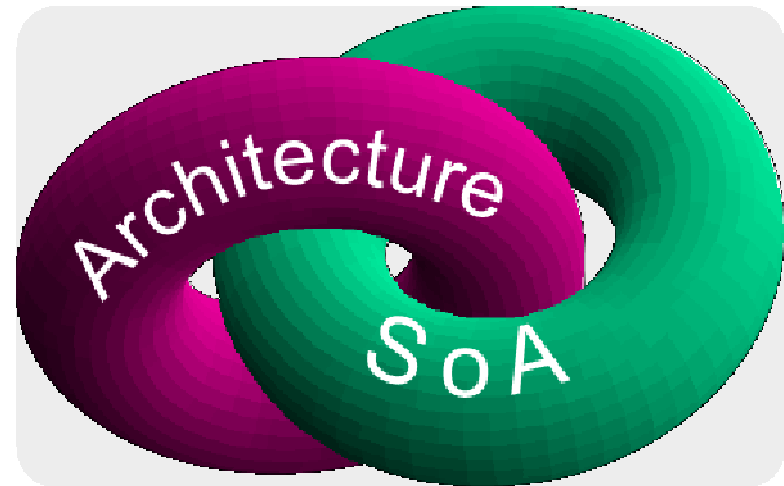
Eliminates separate mobile applications and enables common mobile platform

Build once and leverage  
Time-to-market

2

## New Value Creation

Optimal decision-making at the confluence of disparate, functionally separate systems



3

## New Architecture

Capable of business agility and changing business models  
(without massive IT help)

# What Does Success Look Like?



Software Solutions for Real-Time Success™



- ▶ “Institutionalized” work processes
- ▶ Lifts performance of all workers
- ▶ Integrated messaging drives instant changes
- ▶ Integrated remote data
- ▶ Auditable regulatory compliance
- ▶ “Model” for progress



# Industry, Analyst, & Technology Recognition



**CONTROL ENGINEERING**



## ***Control Engineering (2008)*** *Engineers Choice Award*

**2008**  
**ENGINEERS' CHOICE AWARDS**



**Microsoft (2007)**  
*Mobility Partner of the Year Award*



**START-IT 125 (2007)**  
*Top 125 Technology Companies Serving Manufacturing*



**Frost & Sullivan (2007)**  
*Global Oil & Gas Product Value Leadership of the Year Award*

IntelTrac cited as "the Most Competent Field Force Automation Solution"

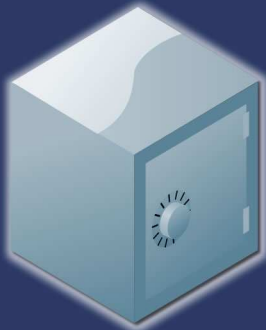


# Global 1000 Client Base



# Mobile Workforce Management and Decision Support System

invensys.  
*Wonderware*  
Software Solutions for Real-Time Success™



**Best Practice Repository**



**Mobile Field Applications**



**Advanced Scheduling  
Calendar**



**Reporting & Analytics**



**Business Analyst - Tools**



**Enterprise Ready  
Framework**

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 Device Management  
 System & Data Center  
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## Super Users/Schedulers



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 Versioning  
 Scheduling



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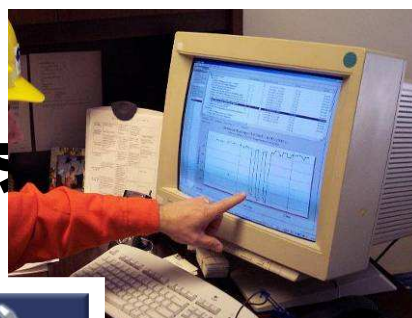
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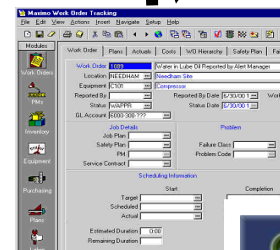
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