Make Sense of All the Data in Your Plant with Intuition Enterprise Collaboration Software

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The Advanced Solutions Portfolio

Reduce capital spend and operating costs through better process design

Anticipate opportunities and risks, collaborate across your enterprise and take the best actions

Optimize the profitability of when, where and what to produce

Analyze a secure archive of your process data to make your next decision a better decision

Enable your control system and operators to run your process at peak performance without incidents

- Operator Competency
- Process Optimization
- Operations & Alarm Management
- Asset Management
- Industry-Specific Solutions
Enterprise Collaboration with Intuition®

- **Intuition®** is a software brand and technology

- **Intuition Executive** is a visualization and collaboration product built on Intuition. It is an enabler for projects that deliver “Management Operating Systems”

- **Intuition** brand applications: Intuition KPI, Intuition Operations Monitoring, DynAMo Alarm Manager, Asset Manager, Plan Analytics etc. can be used with Intuition Executive or standalone.

- The **Intuition** foundation enables enterprise wide collaboration with leading edge semantic web technology
What Problem it Solves

**Organizational Processes**
- Management & Support Processes
  - HR, Finance

**IT Trends**
- 1990s
  - Client Server Architecture
  - Relational Database
- 2010s
  - Big Data
  - SOA
  - Complex Event Processing
  - Web 2.0/3.0
- 1970s
  - Token Ring System
  - Microprocessor

**Break-through Offering**
- 1. Multiple point applications and data sources
- 2. No enterprise level system, data model

**Business Impact**
- Enterprise level productivity gains
- Operation and production costs remain biggest controllable lever in commodity business
- Control level productivity gains

**Create the DCS or ERP in the operation and production space?**
Example: Typical Asset Monitoring Landscape

Functional Silos
Application Silos
Lack of situation awareness

- Are we taking right decisions?
- Are we following best practices?
- Are we losing opportunities?
- Are we effectively utilizing our IT investment?

Lack of integration, collaboration & standard processes.

Information integration between data sources
Collaboration between individuals
Integration between applications (needs intensive consulting & guidance)
The Honeywell MOS approach:

- Measures and calculates key business metrics
- Provides visualization and collaboration
- Triggers workflows to ensure appropriate actions
- Monitors progress and captures experience

**Management Operating System Approach**

**Collaboration**

**Metrics focus collaboration**

**Workflow**

**Action**

**Action impacts metrics**

**Work flow causes action**
Intuition Architecture

The Intuition Architecture supports the Management Operating System approach with its Applications and Components.
Technology Strategies

**Mobility**
- Support in all applications
- Tablet, Phone, Wearable
- Voice integration

**User Experience**
- CEO-driven initiative
- Five-star experience across all touch points

**Cloud**
- Public / Private application Hosting
- Scalable platforms & licensing

**Big Data & Analytics**
- Capture ‘everything’
- Analyze ‘anything’
Intuition Applications

Best of Breed – HTML5

Independent user interface allows viewing inside or outside IX

Mobile capable

DAS enabled

Common Security Model

Backed by complete solution provider for consulting, services and support with worldwide coverage
**Intuition Executive (IX)**

**Intuition Executive** is responsible for enterprise-wide information integration, real-time visualization and collaboration. It moves beyond simple data access and display to:

- **Enable Connectivity** to many data sources (including DCS, historians, applications, MES and ERP systems)

- **Establish Context** with tools to describe how the data from different data sources relates to each other, integrating and relating data on the fly

- **Visualize** the information in a Microsoft® SharePoint® portal using graphics, trends, tree maps and lists

- **Analyze & Monitor** through its calculation and event engine and triggers the right actions in the right circumstances

- **Collaborate** Capture events and collaborative knowledge for continuous improvement
Connectivity - DAS

- All Intuition applications make use of the Universal Data Access Service (DAS) that provides shared services, data federation and data caching.
Intuition Executive - Context

**Historian**
- Tag 32FI012.PV, showing actual, raw flow rate in cubic meters/hour

**Operations**
- 32-P-012 Drilling Compressor

**Maintenance System**
- Asset 11345-2
- Sullair 1350 cfm 350 psi compressor powered by Detroit Diesel Series 60
- Inspection schedule
- Work orders
- Schematics
- Northern Field Gas Plant 10

**Engineering System**
- 32-P-012
- Maximum design flow, pump curve
- Technical drawings

**ERP System**
- 825100001234
- Depreciated purchase cost
- Business or site ownership

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Define relationships, organize data from multiple sources
Reuse application models and exploit relationships
Intuition Executive – Context & Templates

- The Intuition Executive Data Model can drive
  - Templated Dashboards
  - Templated Calculations
  - Templated Graphics

- “Build it once” and roll it out across the organization
- Apply calculations to all instances of a piece of equipment in a single step

- Huge Benefits in
  - Scalability
  - Consistency
  - Maintainability
  - Overall Cost of Ownership
Intuition Executive – Dashboard Visualization

- IX brings ALL the data to your dashboard with Human Factors engineered displays highlighting deviations
- HSEF
- Financial
- Energy
- Process
- Throughput
- Maintenance
- HR
- Inventory
- Quality

- All with active drilldowns to supporting information
Intuition Executive – Analyze & Monitor

If undetected, this would have cost $200k+
Intuition Executive - Collaboration

- Use SharePoint collaboration and work flow
- Use tasks, notes, links, documents
- Drive actions, best practices
- Structured and unstructured data
- Escalation
- Meeting Workspaces
- Capture Knowledge
Questions?

**Intuition Executive**

- **Context based Visualization** coordinates real-time and transactional
- **Multiple Analytics** – Exception based alerting
- **Fully Supported Toolset** ensures rapid deployment
- **Flexible Dashboards** provide for personalization and adaptability
- **Advanced Integration** enables a single version of the Truth
- **Model Based Templating** provide for consistency and facilitates continuous improvement
- **Enhanced Workflow** – closing the loop to ensure actions are effective

Honeywell Process Solutions
[www.honeywell.com/ps](http://www.honeywell.com/ps)
Intuition® Executive
Contextualization | Collaboration & Workflow | Performance