One-Day Wonderware User Conference

THURSDAY, JUNE 4, 2015
MONONA TERRACE • MADISON, WI

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Going Mobile...

... Mobile Solutions

STAYING LEAN WITH INFORMATION ‘ON THE GO’

Presented by: Joe Finn
Wonderware Midwest
What’s driving the pace of change today?

Consumer-driven experiences

Continuous cloud services
Technology megatrends

- Mobility
  - In 2012, mobile devices outsold PCs by more than 2:1 and generated more revenue than PCs for the first time
  - 91% of organizations spent money on mobile devices in 2012
  - 85 BILLION mobile apps were downloaded in 2012
  - 2:1

- Social
  - Social networking now follows not just people but also appliances, devices, and products
  - 1/2 of companies used internal social network apps in 2012

- Cloud
  - >80% of new apps in 2012 were distributed/deployed on clouds
  - The strategic focus in the cloud shifted in 2012 from infrastructure to application platforms
  - 34% of CIOs say technology as a service (cloud) will have the most profound effect on the CIO role in the future

- Big data
  - 49% of CIOs rank BI as the top project priority for 2012
  - Total digital content grew 48% from 2011
  - 2.7 zettabytes in 2012
  - 2/3 of mobile apps developed in 2012 integrated with analytics offerings
  - 32% of businesses were likely to invest in BI and analytics in 2012

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Going Mobile - Agenda

• Getting the Right Information to Right Perso
• Mobile Revolution
• Applications for Mobile...
  • #1 Reporting – SmartGlance
  • #2 Workforce Management – IntelaTrac
  • #3 Workflow – Mobile Workflow Client
  • #4 Process Visualization – HMI on an iPad
  • #5 Real-time Alarms – Mobile 911
  • #6 GIS on your iOS (or Droid) – Mobile GIS
  • . . . And wait, there’s more! Fun Applications – for Work!
We All Need Information to Do our Jobs
How do you provide mobile workers with the right information at the right time?

- Mobile Solutions
Facts...

75% of business users impacted by mobility

1/5 of tablets used in business in 2013

147.2 Million Tablets in business in 2015 - 50%

11,000 iPads used by United / Continental Airlines pilots on board

Tablet Sales grew ~80% Annually

Sources: Gartner, ABI Research, Forrester, Frost & Sullivan, Others
So Let’s...
Mobile Applications

Mobile Applications Provide:

The **Right Information**
At the **Right Time**
To the **Right Person**
MOBILE APPLICATION #1

Mobile Reporting and Notification

SMARTGLANCE
Mobile Reporting

✓ Historians
✓ Alarm DB
✓ HMI
✓ MES
✓ CEM
✓ CMMS
✓ IntelaTrac
✓ Well Field
✓ ‘Your Database’

Mobile Reporting Connector

Send real time data from various products to SmartGlance

SmartGlance
Real Time Mobile Dashboards
Real-time access to critical KPIs and process data via smartphones and tablets.
Key Features

- **Reports** – Critical Data at Your Fingertips - Real time and historical
- **Automatic Data Updates** – Data always up-to-date
- **Powerful Analysis Tools**: Line Charts, Bar Charts, Pie Charts

**Compare** time frames, factories, stores, machines, areas, teams

**Zoom**, **Pinpoint**, and **Analyze**:

- **Share** findings with your team
- **Drill down** to pinpoint a problem
- **Sort, Filter & Freeze** options for excel like ana
Supports All Smart Phones Platforms

**Apple Devices**
- iPhone
- iPod Touch - all versions
- iPad
- Multiple language support – English, French, Spanish, German, Italian, Chinese & Japanese

**BlackBerry Devices**
- Supports both Touch and Non Touch models
- Multiple language support – BlackBerry Playbook
  - English, French, Spanish, German & Italian

**Android Phones**

**Windows Phone Devices**
Security:
Similar to online banks and HR/Payroll systems

- **Authentication:**
  - Access only to registered and authenticated users
  - Each communication message has built-in authenti-
- **Authorization:**
  - Mobile level: login and password to start the app
  - Report level: data available only to the users authorized within the report
- **Encryption:**
  - Full encryption of data
  - HTTPS communication in and out of hosted server
  - Verisign Thawte Certified
New Data Notifications

Receive a banner or an alert notification when a new report or data is updated.

It is a great reminder to know when new data or report comes up.

Allows to open the SmartGlance app with just a touch on the alert.
Build your own alerts

‘My Alerts’

- You can generate your own Alerts
- You can share your Alerts with another user
- Subscribe to new Alerts
Try it for yourself . . . for free!

- Download and Install Free SmartGlance Phone App
- Connect to ‘Demo Reports’
- Show it off 😊
MOBILE APPLICATION #2

Workforce Management

INTELATRAC
Field Operators

- Fewer and fewer
- Wearing more hats
- Turnover, experience levels
- Need tools to drive higher effectiveness
IntelaTrac – A Tool for Improving Operator Effectiveness

- Operator Rounds – Data Collection
- Equipment Inspections
- Health, Safety and Environmental (HSE) Rounds
- Security Rounds
- Built-in Contingency Actions
- Projects & Turnarounds – status tracking & procedure enforcement
- Quality Assurance – Manual data sampling
IntelaTrac

System Administration
- User Administration, Device Management
- System & Data Center Management

Super Users
- Procedures Versioning Scheduling

Mobile Workers
- Operator Rounds Data Collection
- Work Requests

Management
- Minutes not hours, equipment saved

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

Enterprise Integration
- CMMS / Reliability
- WW, OSI PI, AspenTech

Exception Reports
- Process/Performance KPI’s
- Email Notifications
IntelaTrac

- Drives Operational Consistency
  - Rounds & Dynamic Procedures
  - Capture and spread operational knowledge
- Gain Better Insights on All Assets
  - Data Collection on “Stranded” Assets
  - Immediate Feedback (data history)
- Leverage Operators in Reliability Efforts
- Helps Managers Manage Better (w/ data)
- Helps Ensure Regulatory Compliance
Decisions on the Go

MOBILE WORKFLOW
New **WORK TASKS** App, *Workflow on the Go*

**Most Plant Workers are Mobile**
- Operators, Managers, Engineers, Technicians, Maintenance Workers, Lab Workers

- NEW **Work Tasks** mobile app (iPhone & iPad)
  - Monitor & Execute assigned work tasks
  - Great tool for managers (meetings, travel, home)
  - Keeps workflows moving. Not waiting for anyone.
  - Reduces delays, particularly management approvals.
Work Tasks - Key Capabilities

- View and Act on work items from your iPhone or iPad, anywhere
- Search for specific work items
- View work items based on categories
- Flag work items based on importance
- View work items even in offline mode
- Number of pending tasks pushed to mobile devices and displayed on Work Tasks icon
Work Tasks – Key Advantages

- Helps Accelerate Workflows
  - Less waiting for someone to approve a task
- Keep Track of Critical Workflows
  - List of workflows on your phone
- Helps You Manage Better
  - Helps you identify workflow bottlenecks
MOBILE APPLICATION #4

Mobile Real-Time HMI
• Keep mobile operators fully informed of ongoing processes
• Allows remote or mobile intervention
  • Full functionality
  • Secure access
• Runs on any mobile device that supports Microsoft Remote Desktop Services (aka Terminal Services)
• Access Anywhere with HTML5 RDP Client (Any device with a browser)
• Consumes a Terminal Services Session License
Operator Use Case

- The Field Operator can see the state of an equipment then operate it using his SCADA HMI on a Tablet
- He can enter information from where he is without having to move to a different place (better reliability of data)
- He can get access to the right information in real-time even when he is close to the machine (like a downtime reason or an alarm)
How does it work

• Connectivity achieved through Remote Desktop Sessions
• Secure access using VPN
• Access through WiFi and or 3G/4G
• Reduces the need for multiple panels in warehouse, packaging, bottling or in geographically dispersed facilities in Water, Oil & Gas, Power
MOBILE APPLICATION #5

Real Time Alarms

- Ties into your SCADA system
- Brings alarms right to your Phone or Tablet where they can be acknowledged.
- Can use in Conjunction with a PanelView also!
- www.specterinstruments.com
MOBILE APPLICATION #6

Mobile GIS (Global Information Systems)

- Extend the reach of your GIS Systems
- Increase productivity and accuracy by updating your GIS in the field
- Most GIS Vendors support most devices
What is your Water Footprint?

‘WaterPrint’

- Calculate your daily Water Usage
- How much water does it take to ___?___
- iPhone Only
- www.waterprint.net
MOBILE (fun) APPLICATION

Fingers hurt because of all of those Apps?

‘AcheBreak’

- Repetitive Strain Injury (RSI) App
- Cartoon characters help relieve sore muscles
- Take a Break!
- www.achebreak.com
Water versus ‘Apps’

According to a 2013 Mobile App Behavior study by Apigee, 85% of the respondents said they would rather go without Water than going without their Mobile Apps.
Summary

- Mobile Technology is Here to Stay
  - Smartphones, tablets, rugged handheld computers
- The market delivers a host of mature, mobile solutions
  - Mobile Reporting
  - Mobile Workforce
  - Mobile HMI & Alarms
  - Mobile GIS
  - Mobile ‘everything!’
- The Right Information to the Right Person at the Right Time

- Questions? Joe.Finn@WonderwareMidwest.com
More on SCADA

Security

- $$$Millions$$$ being spent to keep SCADA Safe
  - But, must stay quiet on all being done
- 3rd Party Companies being paid to hack into ‘our’ software
- ICS-CERT – Emergency Response Teams
More on SCADA

PLC Training

- ‘PLC Guide’ (Others available)
- Basic concepts of PLC Programming
- FREE
More on SCADA

SCADA-Aware

• Alarm Notification – Guaranteed Delivery
• Can deliver to person ‘closest to alarm’
• You’ll pay more, but . . . Guaranteed delivery!
• All Phones
Demonstration

SmartGlance

WaterPrint