ENHANCING PLANT OPERATIONS WITH TECHNOLOGY

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DIGITAL TRANSFORMATION

Enabling...

- Faster time to market
- Lower total cost of ownership
- Improved asset utilization
- Enterprise risk management

This session will focus on...
AGENDA

• How can modern technologies drive plant floor collaboration and optimization?
• What are some of the operational obstacles that we face today?
• Strategies
• Solutions
• Use Cases and Outcomes
• Call to Action
WHAT MANUFACTURING CHALLENGES EXIST?

• Aging Workforce/Labor Shortage
• Rapidly Changing Technology
• Automation vs. Human Resources
• CyberSecurity/IP
• Time To Market
• Competitive Landscape
• Manufacturing Evolution
• …
CHANGES IN MANUFACTURING

- Enhanced Visualization and Advanced Simulation
- Additive Manufacturing
- Smart Automation (Smart Machine)
- Machine to Machine Communication
- Augmented Reality
- Cloud
OVERCOMING OPERATIONAL CHALLENGES

• Centralized Deployment and content delivery of Operator Information systems
• Consistent Operator Interface Design
• Alarm System with escalation, flow, and response as well as real-time reporting
• Maintenance Collaboration Tools
USE CASE – IMPROVING CONTENT DELIVERY AND DEVICE MANAGEMENT

• HMI application modernization and PC management strategy
• Solution Strategy
  • Phased upgrade to HMI application with OS obsolescence
  • Modernization strategy for managing content and devices in the manufacturing environment
  • Implementation of IP cameras to improve safety conditions
  • Manage content and hardware using a single application
  • Shadowing operator terminals to allow for remote advisory
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– FACTORYTALK VIEW AND THINMANAGER
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– FACTORYTALK VIEW AND THINMANAGER

ThinManager provides secure configuration and delivery of content to any combination of device, user and location.

Deliver sessions to multiple monitors and/or virtual screens on a single thin client.

Deliver virtual desktops or manage PCs as thin clients.

PanelView Plus Remote Desktop to HMI (via VNC)

Access feeds from USB & IP cameras

Deliver content to the right person at the right time and place

ThinManager can easily assign content to users. This allows applications to follow a user as they move from terminal to terminal.

Deliver applications based on what is assigned to the terminal or user.

VersaView 5200 Industrial Thin Clients

ThinManager Application Delivery

Applications & Content

ThinManager

Application Delivery

OFFICES

PC

VERSUS

MES

ERP

HTTP

CMMS

HMI

PLANT FLOOR

USERS

APPLICATIONS & CONTENT

THINMANAGER

APPLICATION DELIVERY

CONTROL ROOM

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ThinManager Application Delivery

Applications & Content

ThinManager

Application Delivery

CONTROL ROOM
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MultiMonitor
Use up to 6 monitors from a single thin client.

4k Monitor
Support for high-resolution 3840-2160 4k monitors.

Session Tiling
View up to 25 sessions on a single monitor. Click any tile to launch a full screen working session.

Virtual Screens
Split any screen into multiple sections (up to 16) with custom sizing.

Session Scaling
Scale sessions up or down to fit a screen keeping the same aspect ratio or forcing to fit.
USE CASE – TIME TO REPAIR

Improve Collaboration and Workforce knowledge

- Solution Strategy
  - Capitalize on shared/gained knowledge
  - Tablet/Phone based application
- Offers the ability to share and collaborate on troubleshooting
- Offers instant access to supplier knowledgebase
- Share live data from plant floor devices (VFD’s, etc)
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ENABLING A CONNECTED ENTERPRISE – FACTORYTALK TEAM ONE
USE CASE – ALARM MANAGEMENT

• Alarm escalation and communication processes

• Solution Strategy
  • Who, what, how long, what’s changed?
  • Integrated alarm notification process with SMS, email, phone messaging
  • Alarm escalation and response planning
  • Bringing wireless devices and messaging applications to the maintenance world
TYPICAL ALARM NOTIFICATION

1. **NOTIFICATIONS**
2. **WHO TO NOTIFY**
3. **ARE THEY AVAILABLE?**
4. **HOW TO NOTIFY?**
5. **RESOLVE THE ISSUE**
6. **DID THEY RESPOND?**

**Typical Alarm Notification Flow**

- **NOTIFICATIONS**
- **WHO TO NOTIFY**
- **ARE THEY AVAILABLE?**
- **HOW TO NOTIFY?**
- **RESOLVE THE ISSUE**
- **DID THEY RESPOND?**

*Note: The flowchart illustrates a typical process for handling alarm notifications.*
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ENABLING A CONNECTED ENTERPRISE – SPECTRE WIN-911

Deliver the right notification to the right person at the right time

- **Maintenance Technician**
  - Faster Response
  - Reduced Downtime

- **Engineer Quality Control**
  - Improved Planning of System Upgrades

- **Management Supervisor**
  - Increase System Efficiency

- **Security First Responders**
  - Alert in Event of Emergency

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ENABLING A CONNECTED ENTERPRISE – SPECTRE WIN-911

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OUTCOMES

- Improving management of devices and content, alarm management and responses
- Enabling PC management/replacement without IT assistance
- Enable maintenance/engineering teams to share information in real-time
- Cost savings [hard and soft – ie: a trained workforce can solve issues faster → less downtime]
- Visual of what end-state can look like [picture if possible-see next slide for example or feel free to use]
CALL TO ACTION

- Assessment – Are you ready for the next step?
- Ask your Werner Electric team about a Digital Transformation readiness assessment
- Engage with Werner Electric to see how we can help
THANK YOU FOR ATTENDING!

QUESTIONS?
Challenge us

DISCOVER MORE