

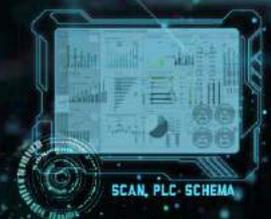
Life Is On

Wonderware  
by Schneider Electric

# System Platform 2017 with InTouch OMI

Build It Once. Build It For All.

17%



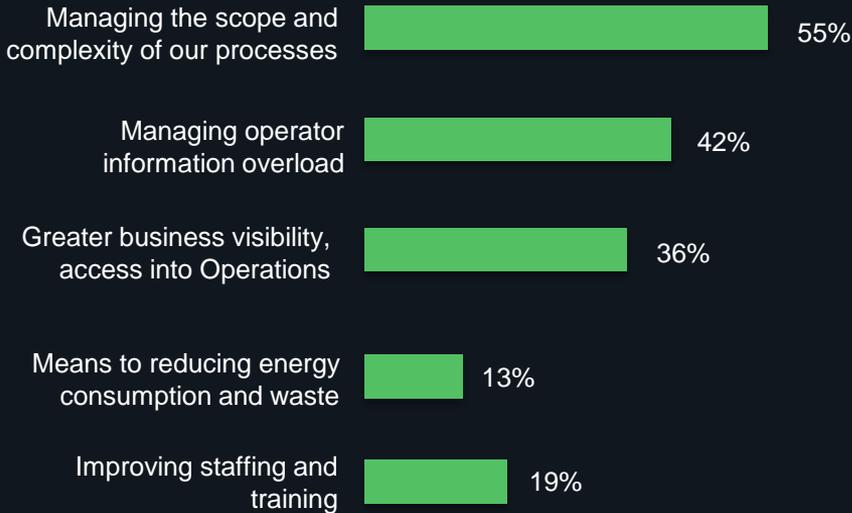
ACTIVE ALARM AT SITE 313

PRESENTED BY

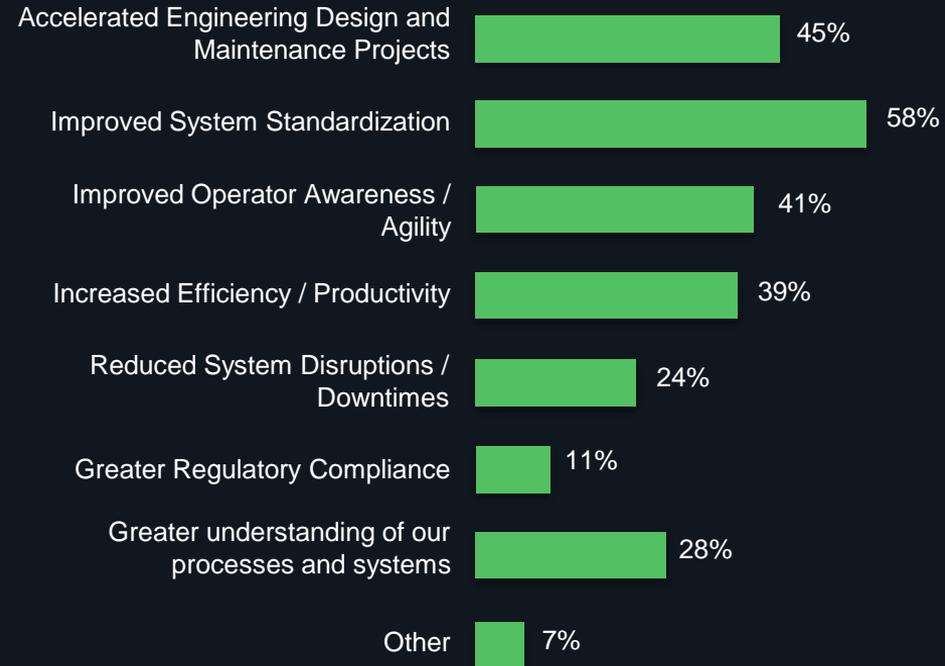
ALVARO MARTINEZ

Portfolio Manager – HMI Supervisory

# Overcoming Challenges using Wonderware Software



# Benefits Gained using Wonderware Software



# Major Themes

## Easy to Build



Build Once and  
Deploy on any device



Prebuilt Standards Enforce  
Consistency on any PLC

## Easy to Use



Reduce Technical  
Knowledge Barrier



Modern User UI/UX Experience  
Everywhere!

## Easy to Own



System  
Simplification/Maintainability



Minimized Downtimes

# Major Themes

## + Runtime Uptime

- + Deployment Paradigm
- + Maximize Uptime!!!

## + Runtime Preservation

- + Deployment Changes
- + Maintain Running Values

## + Licensing

- + Centralized License Management

Easy to Own



System

Simplification/Maintainability



Minimized Downtimes

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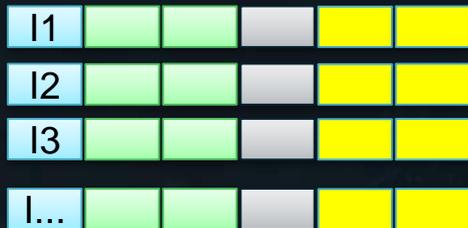
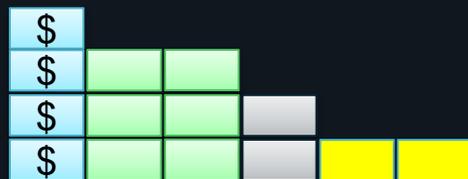


Build Once and Deploy on any device



Prebuilt Standards Enforce Consistency on any PLC

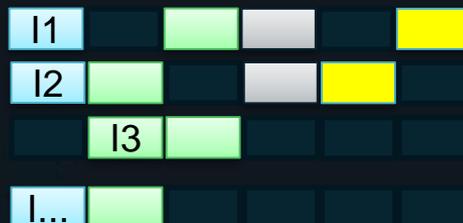
## + Templates



## + Templates Redesign

+ Simplicity

+ Efficiency



# Object Wizards

---

Smart Template Management

\$StdPotableWaterValve

**Choices and Options**

- Closed Only
- Both
- Has invalid limit: switch state
  - No
  - Yes (integrated using actual lin
  - Yes (field extended state)
- Control output type
  - None
  - Analog only
  - Ratcheting (Discrete)
- Feedback level
  - None
  - Use analog position feedback
  - Use analog output: feedback
  - Open state only (single feedba
  - Closed state only (single feedb
  - Open/Closed states
  - Open/Closed and in transit cha

Prompt: Yes

Description: Valve provides analog output feed from the field and User provides minimum/maximum range in EU

Visibility:

# Choices & Options

**Associations**

CV

Analog output feedback (%):Yes

Analog output feedback (%):Yes - (range field extended)

Historization::No

# Attributes Linked to Options

**Attributes**

Inherited  User extended Search Current Attributes (Ctrl + E)

- ActualOpenLSPortC [\$\$S\_Valve\_v3]
- Valve Open Limit switch: True = Confirmed open PortC
- ActualOpenLSPortD [\$\$S\_Valve\_v3]
- Valve Open Limit switch: True = Confirmed open PortD
- ActualOpenLSPortE [\$\$S\_Valve\_v3]
- Valve Open Limit switch: True = Confirmed open PortE
- Actual actuator fault (overload, etc.): False = OK, True = Fault
- CV [\$\$S\_Valve\_v3]
- Current control Value (CV) output to valve, Value of CV output (CV EU)
- CVControlLimit [\$\$S\_Valve\_v3]
- Sets the control value (CV) operator command high limit value. This is used for limiting the output command (OperCVCmd) when it is set from faceplate. Valid = CVControlLimitLo < CVControlLimitHi <= 100.0, Default = 100.0
- CVControlLimitLo [\$\$S\_Valve\_v3]
- Sets the control value (CV) operator command low limit value. This is used for limiting the output command (OperCVCmd) when it is set from faceplate. Valid = 0.0 <= CVControlLimitLo < CVControlLimitHi, Default = 0.0
- CVControlLimitHi [\$\$S\_Valve\_v3]
- Maximum scaled value for CV. The value of CV which corresponds to 100 percent span of the Control Valve. (Valid = CVFinalInhibRangeMin < CVFinalInhibRangeMax <= maximum positive double. Default = 100.0)
- CVEngUnitsRangeMax [\$\$S\_Valve\_v3]

# Attribute List

**Symbols**

- SA\_Valve\_3Way [\$\$S\_Valve\_v3]
- SA\_Valve\_4Way [\$\$S\_Valve\_v3]
- SA\_Valve\_4Way\_Damper [\$\$S\_Valve\_v3]

6 of 6 displayed. 0 selected

# Graphics Linked to Options

Name: CV

Description: Current control Value (CV) output to valve, Value of CV output (CV EU)

Data type: Double

Writeability: Object writeable

Initial value: 0.0 Eng units: %

Available features:

- History
- Limit alarms
- RDC alarms
- Deviation alarms
- Bad value alarm
- Statistics
- Log change

Read from: CV

Advanced

Force storage period: 0 ms

Value deadband: 0.0 EU

Trend high: 10.0 EU

Trend low: 0.0 EU

Enable swinging door

Interpolation type: SystemDefault

Rollover value: 0.0

Bad value alarm

Alarm message: me.CV.Description

# Attribute Parameters



# Major Themes

Easy to Build



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Consistency on any PLC

## + **Template Redesign**

- + Object Wizards
- + Symbol Wizards are now Object Wizards!!

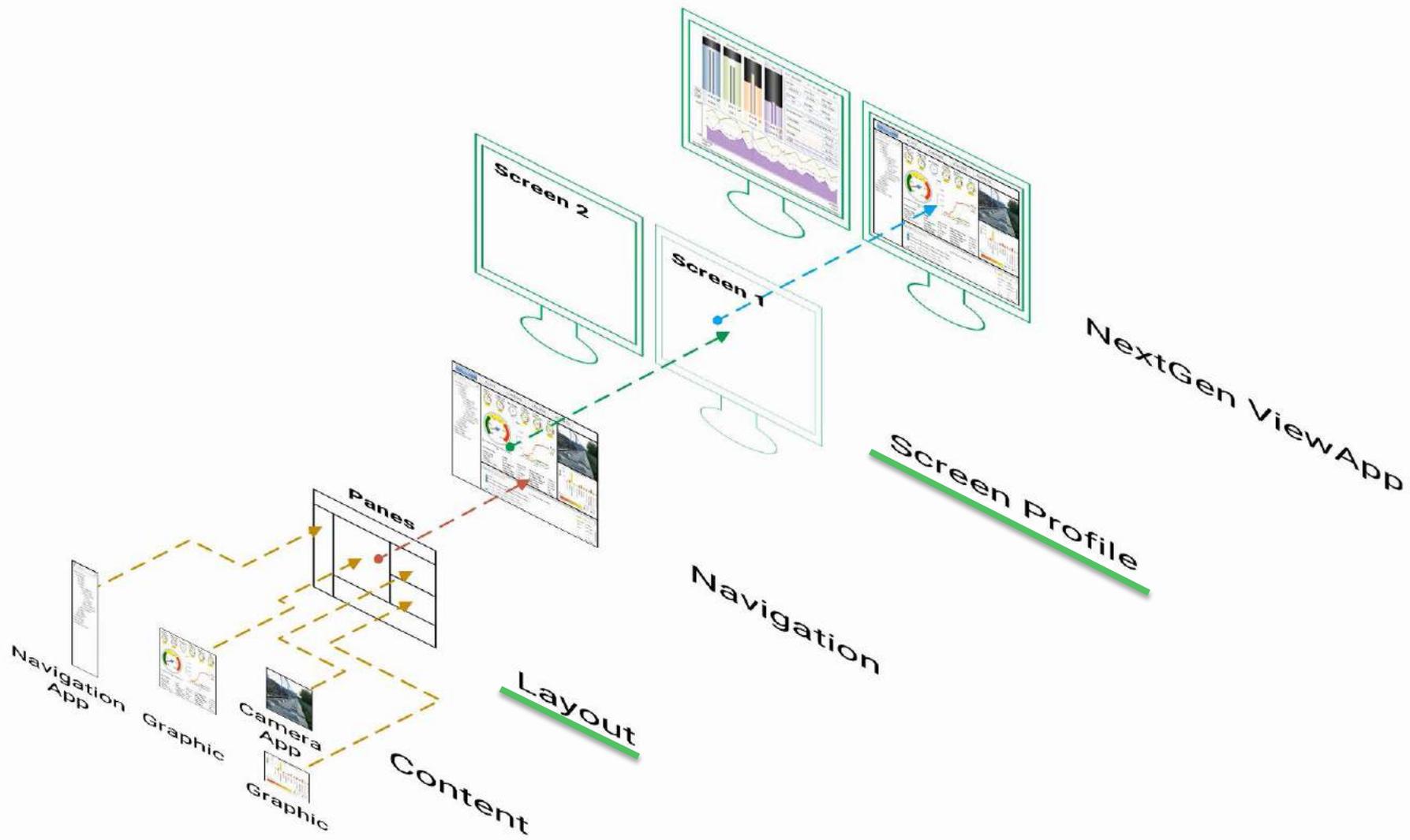
## + **Visualization**

- + Engineering Efficiency
- + Flexibility

# Screen Profiles and Application Layouts

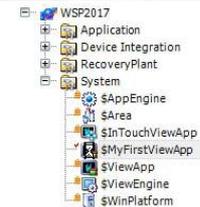
---

One Application... Many Form Factors





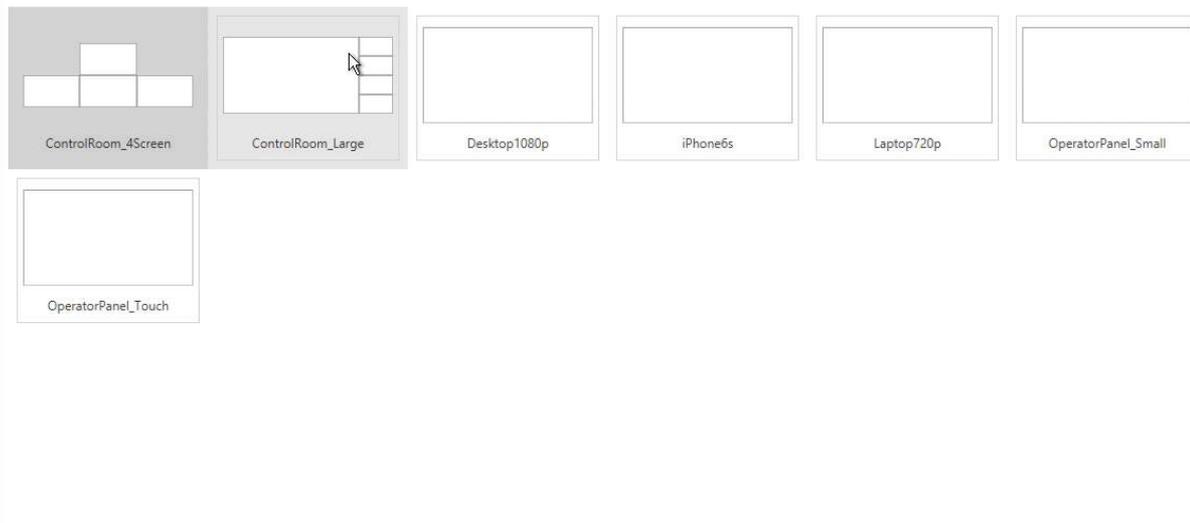
## Template Toolbox



# Screen Profiles

## ViewApp Initialization

Select Screen Profile Associate Layout



Cancel

Next

Template Toolbox

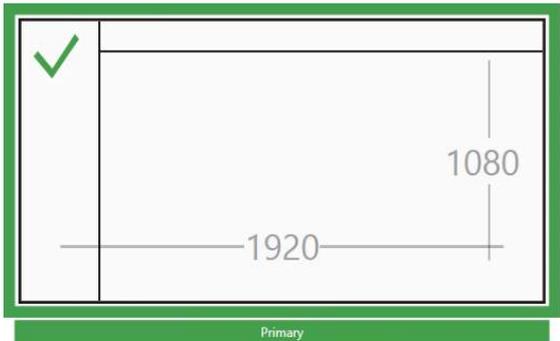
- WSP2017
  - Application
  - Device Integration
  - RecoveryPlant
  - System
    - \$AppEngine
    - \$Area
    - \$InTouchViewApp
    - \$MyFirstViewApp
    - \$ViewApp
    - \$ViewEngine
    - \$WinPlatform

# Application Layouts

ViewApp Initialization

Select Screen Profile Associate Layout

Select a Screen:



1080

1920

Primary

Select a Layout for the Screen:

- LeftNavBasic
- LeftNavLevel3
- SinglePane
- Video\_Detail
- Video\_Overview\_4Panel

Cancel Back Finish

Template Toolbox GraphicToolbox

Model

WSP2017

Model Deployment Deviation



# The World's First Responsive HMI without Scripting

Forget re-engineering HMI graphics. Configure applications once. Deploy anywhere, on any device.

Tablet UI – Portrait



Tablet UI – Landscape



Desktop UI



Mobile UI

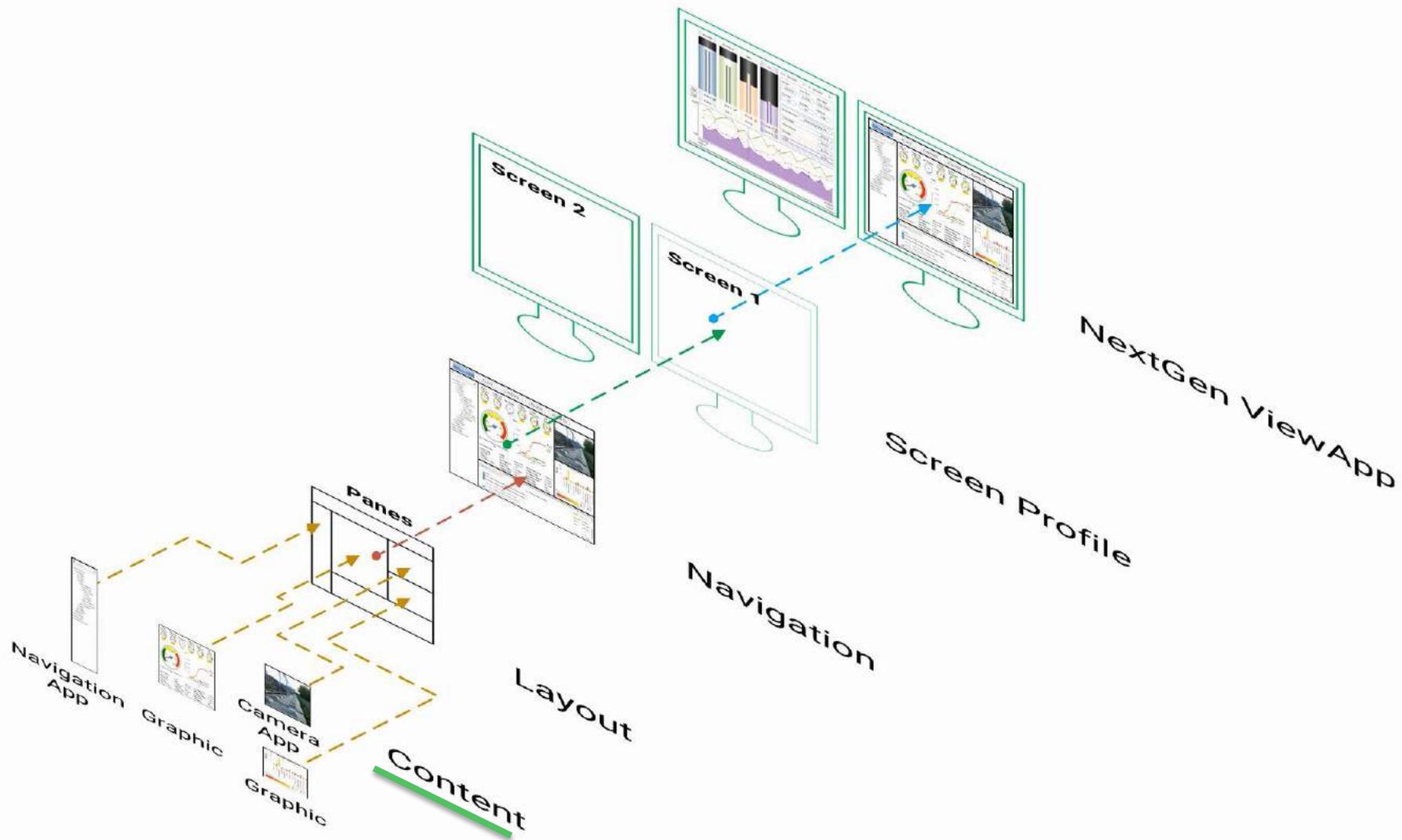


More importantly, none of the content changed for any of these examples

# The Next Paradigm in HMI Configuration

HMI standardization improves your agility, responsiveness and change management efforts.

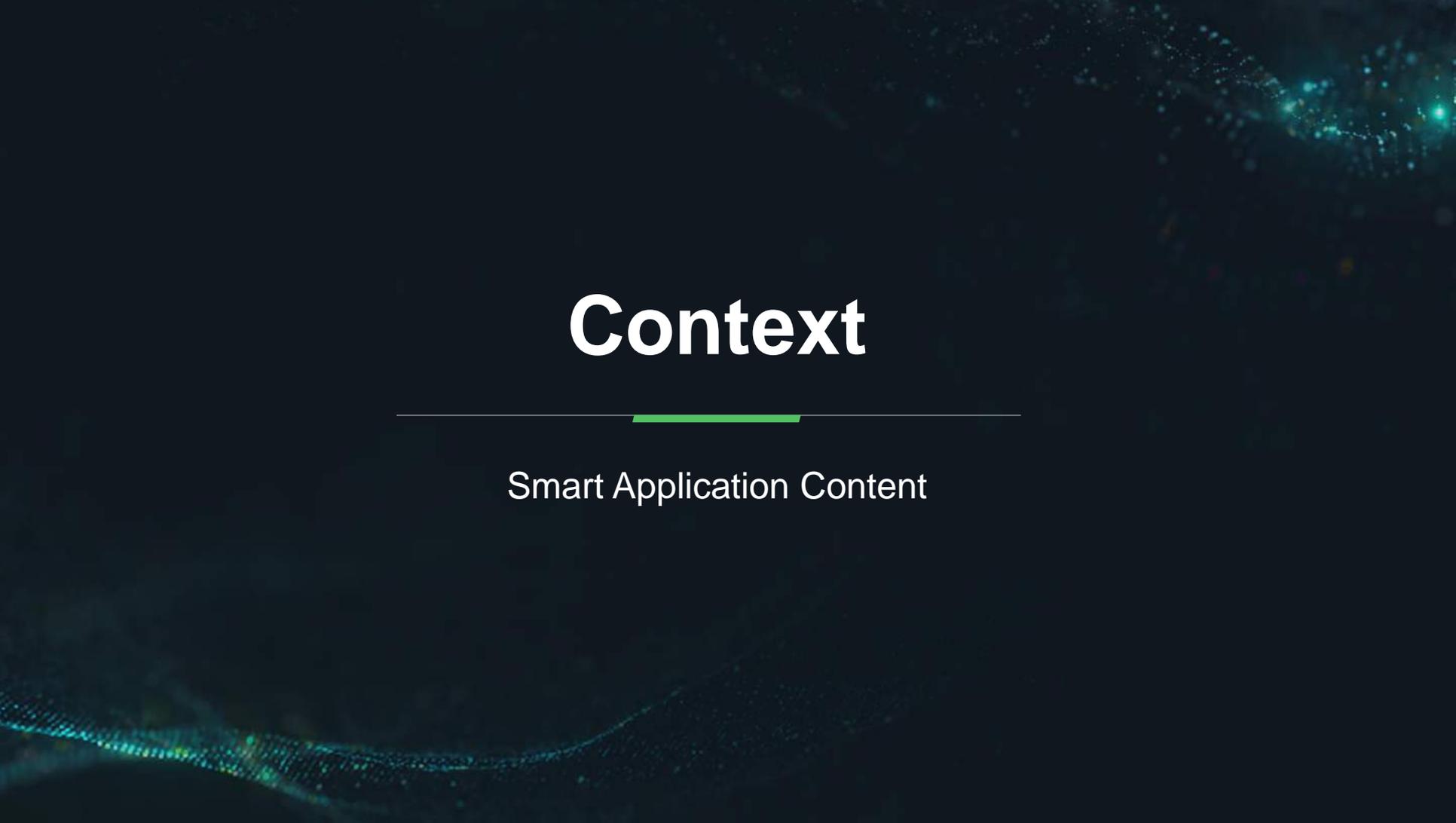




# Context



Smart Application Content





Navigation

- Home
- ProductionArea
  - Line1
  - Line**
  - ShippingArea

Actions

Auto-Fill Content: **None**

Actions for Primary:

- Show: LeftNavBasic  
From: ProductionArea  
On: Primary
- Show: Header\_1080p  
From: LeftNavBasic  
On: Header
- Show: NavT\_NavigationTree  
From: LeftNavBasic  
On: Navigation

Screen Profile

Desktop1080p

Layout: **LeftNavBasic**

Screens

Primary  
LeftNavBasic

Navigation (...)

Header *Wonderware* Wonderware System Platform 2017 22:05

Overview

**PREVIEW NOT IMPLEMENTED**

THIS PANE SHOULD CONTAIN THE ARCHESTRA APP NAMED NAVTREE.NAVIGATIONTREE

Properties | **Toolbox** | Assets

Search

Graphics • WSP 2017

- WSP2017
  - Graphics
    - Advanced Graphics
    - Archestra Symbol Library
    - RecoveryPlant
    - Situational Awareness Library
    - WSP 2017**
    - Layouts
    - NextGen Apps
    - Screen Profiles
    - WindowsForms

Dashboard1 Dashboard2 Dashboard2V

Dashboard3 SA\_Example5 SA\_Example6

SA\_Overview SA\_OverviewV Title Meters

WSP2017\_Spl...

# Context

---

**The applications frames are  
“wired / linked”  
to one another automatically!**

# Model-Based Applications

---

Totally Smart Applications

Galaxy Edit View Object Window Help

Template Toolbox

- WSP2017
  - Application
  - Device Integration
  - RecoveryPlant
    - \$PlantArea
    - \$Reactor
      - Pump
      - Tank
      - Valve
    - \$RecoveryPlantViewApp
  - System

# Navigation

Navigation

- Home
- Reactors
  - Reactor\_2W9
    - Pump\_002
    - Tank\_002
    - Valve\_002
  - Reactor\_A915
  - Reactor\_K22
- TransferStation
- WeighStation

# Model

Template Toolbox GraphicToolbox

Model

- WSP2017
  - UnassignedArea
  - Execution\_engine001
    - Node\_001
      - Reactor\_001
      - Simulator
      - RecoveryPlant
        - Reactors [ Site ]
          - Reactor\_2W9
            - Pump\_002 [ Pump ]
            - Tank\_002 [ Tank ]
            - Valve\_002 [ Valve ]
          - Reactor\_A915
            - Pump\_001 [ Pump ]
            - Tank\_001 [ Tank ]
            - Valve\_001 [ Valve ]
          - Reactor\_K22
            - Pump\_005 [ Pump ]
            - Tank\_005 [ Tank ]
            - Valve\_005 [ Valve ]
        - TransferStation [ TransferStation ]
        - WeighStation [ QualityControl ]

Archestra IDE

Screen Profile Desktop1080p

Screens Primary LeftNavLevel3

Layout: LeftNavLevel3

Navigation

Header Wonderware Wonderware System Platform 2017

Section # Window # 22:05

Overview (default)

REACTOR ROOM

REACTOR 2W9

REACTOR A915

REACTOR K22

PREVIEW NOT IMPLEMENTED

THIS PANE SHOULD CONTAIN THE ARCHESTRA APP NAMED NAVTREE.NAVIGATIONTREE

Level1

Level2

49%



**Template Toolbox**

- WSP2017
  - Application
  - Device Integration
  - RecoveryPlant
    - sPlantArea
      - sReactor
        - Pump
        - Tank
        - Valve
      - sRecoveryPlantViewApp
    - System

Template Toolbox | Graphic Toolbox

**Model**

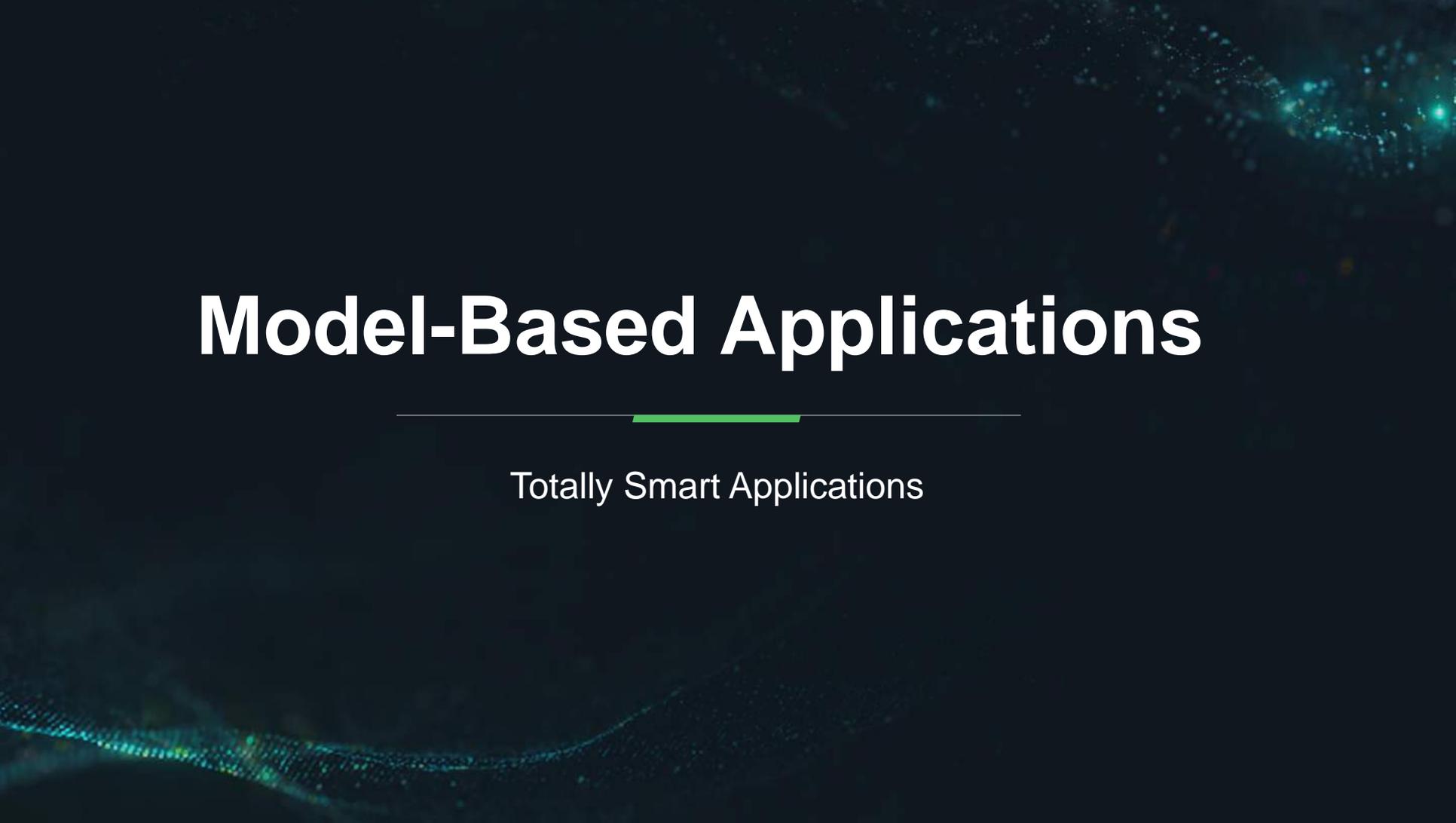
- WSP2017
  - Unassigned Area
    - Execution\_engine001
      - Node\_001
        - Reactor\_001
        - Simulator
      - RecoveryPlant
        - Reactors [ Site ]
          - Reactor\_2W9
            - Pump\_002 [ Pump ]
            - Tank\_002 [ Tank ]
            - Valve\_002 [ Valve ]
          - Reactor\_AG15
            - Pump\_001 [ Pump ]
            - Tank\_001 [ Tank ]
            - Valve\_001 [ Valve ]
        - Transferstation [ Transferstation ]
        - Weighstation [ QualityControl ]

Model | Deployment | Deviation

Ready



# Model-Based Applications



---

Totally Smart Applications

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- + Object Wizards
- + Symbol Wizards are now Object Wizards!!

## + Visualization

- ~~+ Engineering Efficiency~~
- + **A<sup>2</sup>** Engineering Efficiency
- + Flexibility

## + Security

- + Contextual
- + Single Sign On



COMMS STATUS  
Connected

SA\_AlarmSeverity  
#0 #1 #2 #3 #4 #5 #6 #7 #8 #9

0 Open Tasks

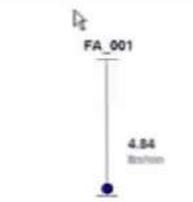
#####

SCADA SCROLLING PANELS TOUCH FACEPLATES LOGBOOK COLLABORATION

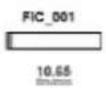
NewTree\_NavigationTree... X Close X

User Full Name  
User Role

Share Apps Settings



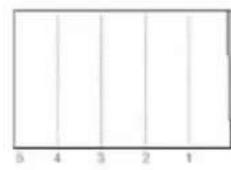
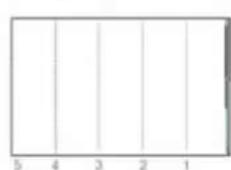
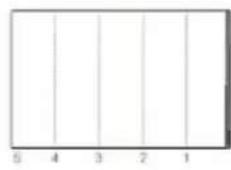
FA\_001 4.84 Reactor



FT\_001 0.37 Reactor



A B C



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- + Single Sign On

## + Historical Data

- + Historical Playback



# Major Themes

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## + Historical Data

- + Historical Playback

# System Platform 2017 and InTouch OMI



# System Platform 2017 and InTouch OMI Performance

---

## + App Server Runtime

- + Up to 20% improved runtime performance
- + Multi-Engine Startup and failover improvements

## + Visualization Performance

- + New Visualization Engine
- + Multi-Threaded
- + Leverage multiple cores

## + WW Certified Hardware

- + 100,000 I/O Single Node
  - + GR
  - + Historian
  - + 25 InTouch OMI Sessions
  - + OI Server Pro Multi-Instance

# Major Themes

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Consistency on any PLC

## Easy to Use



Reduce Technical  
Knowledge Barrier



Modern User UI/UX Experience  
Everywhere!

## Easy to Own



System  
Simplification/Maintainability



Minimized Downtimes

# Major Themes

## + Content

- + Object Wizards Templates
- + Symbol Wizards are now Object Wizards!!

## + Visualization

- + Engineering Efficiency
- + Flexibility

Easy to Use



Reduce Technical Knowledge Barrier



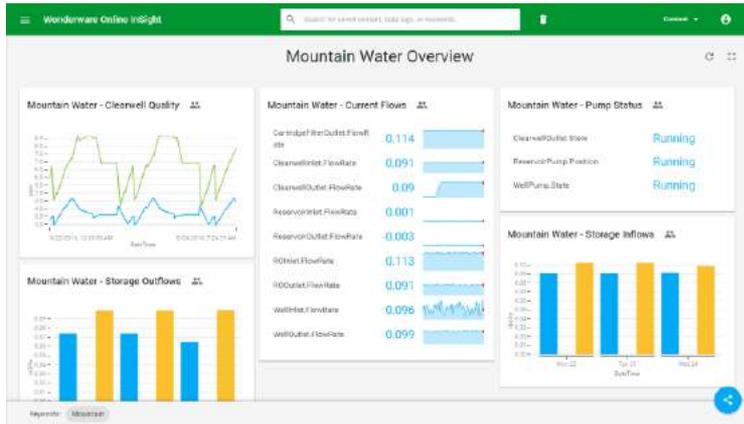
Modern User UI/UX Experience Everywhere!

## + Visual Experience

- + Built-In Content
- + Resolution Independence
- + Pan and Zoom
- + Clutter / De-Clutter
- + Touch Gestures
- + Multi-Point Touch
- + Contextual Navigation
- + Apps!

# Plug and Play Apps Bridge the IT/OT Divide

Rich, modern applications simplify the flow of data that connects plant assets with control and business systems.



- + Alarm Adviser
- + Recipe Plus
- + Workflow
- + Operations
- + InSight
- + Camera
- + Map
- + Navigation
- + Web Interfaces in context
- + And more 3<sup>rd</sup> Party content...



# Major Themes

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System  
Simplification/Maintainability



Minimized Downtimes

In Conclusion

---

**Awesome!**

Life Is On

*Wonderware*  
by Schneider Electric

# System Platform 2017 with InTouch OMI

Build It Once. Build It For All.

17%



ACTIVE ALARM AT SITE 313

Life Is On

Wonderware  
by Schneider Electric