

PI Vision 2017

Bethanne Robinson, Field Service Engineer

Oct 25th, 2017



Our Commitment to YOUR Needs

You told us...

Where Control center, Desktop, Mobile

When Real-time: Past, Present, Future

How Operational Intelligence
Advanced Analytics
Business Intelligence
Enterprise Reporting

Requirements

SEAMLESS

Unified experience

UBIQUITOUS

Empowering for all users

ON – DEMAND

Intuitive, self-service, off the shelf



PI Vision

We are embarking on a **unified visualization infrastructure** to deliver a seamless, powerful, extensible experience.

Create
Beautiful
Information
Displays &
Dashboards

Monitor and
Optimize
Complex
Processes

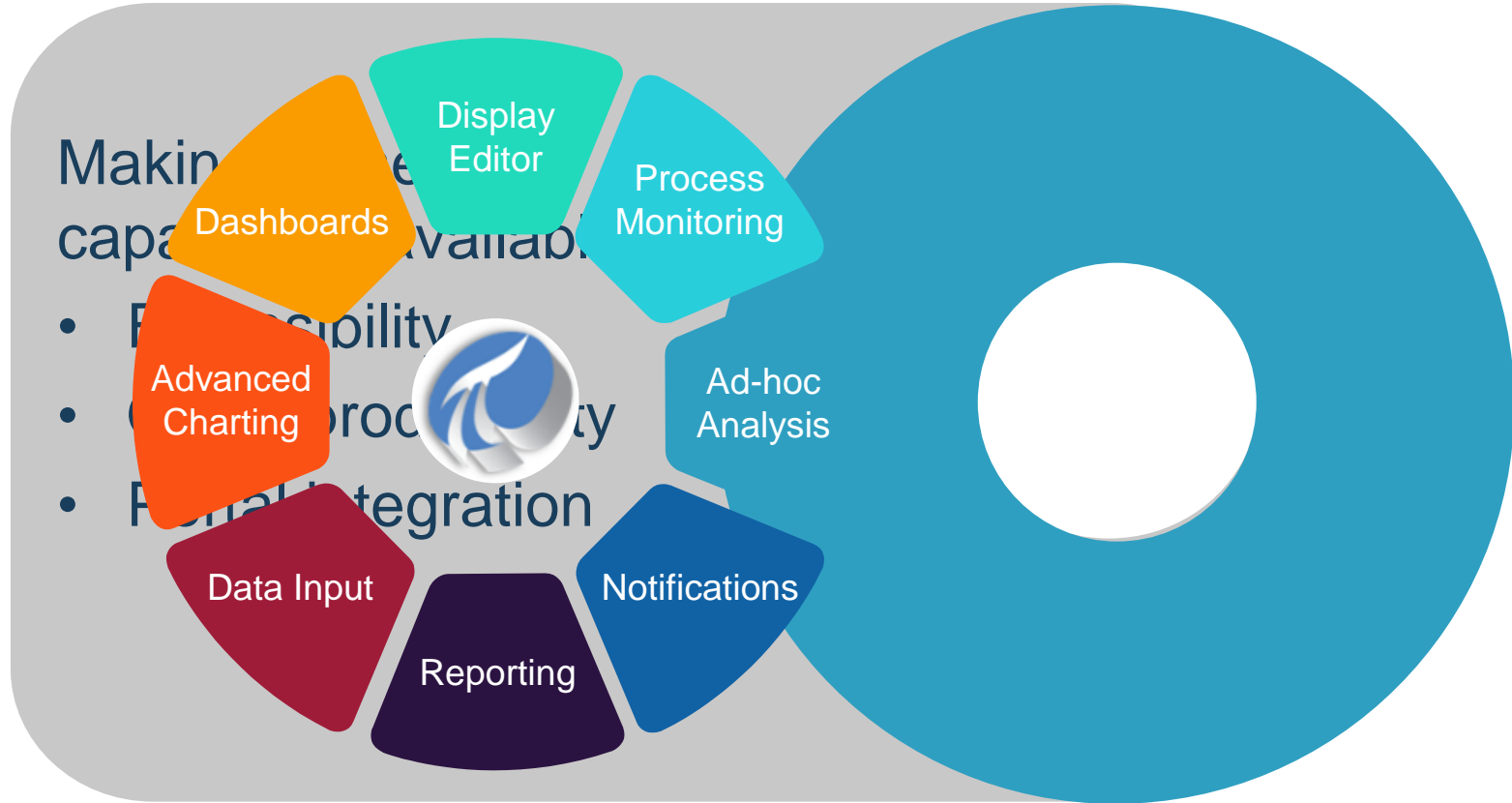
Analyze and
Compare
Important
Events

Input Critical
Data in
Context

Your window into operational intelligence



Unified Visualization Infrastructure: Core Capabilities



OSIsoft's Visualization Execution Strategy: Focus & Goals

Modern architecture

Leverage the latest technology to stay relevant



Value-add features

Enable customers to solve new problems and derive more value



Process Graphics

Provide PI ProcessBook customers a path forward



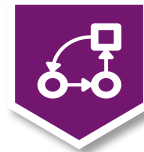
Partner enablement

Actively support partners to develop solutions on our platform



Extensibility

Enable the community-at-large to build customizations & extensions



Superior data access

Ensure PI Web API is focused to meet the service layer needs



Major Changes Are Underway

2016

- ✓ HTML 5: View on any phone/tablet
- ✓ **New Display Editor**
- ✓ **PI ProcessBook Viewer**
- ✓ **Event Comparison (Gantt chart + overlay trend)**

2016 R2

- ✓ **Event Search**
- ✓ **Trend Configuration**
- ✓ Event Comparison Displays
- ✓ **Event Details and Acknowledgement**

2017

- ✓ Collections
- ✓ Graphics Library
- ✓ Pinned Events
- ✓ Drill-in Navigation



New Display Editor



PI ProcessBook Viewer



Overlays & Gantt charts



Major Changes Are Underway

2016

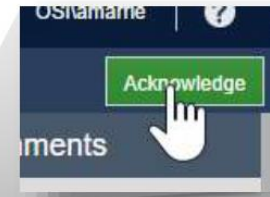
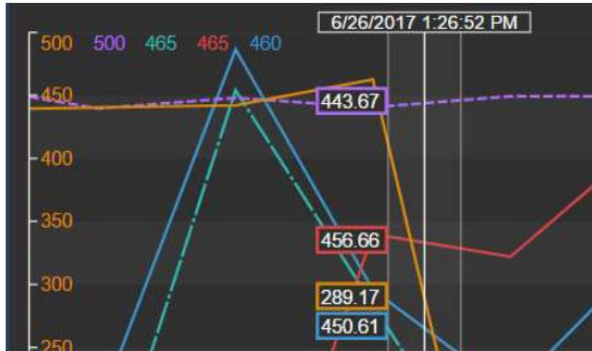
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- ✓ **New Display Editor**
- ✓ **PI ProcessBook Viewer**
- ✓ **Event Comparison (Gantt chart + overlay trend)**

2016 R2

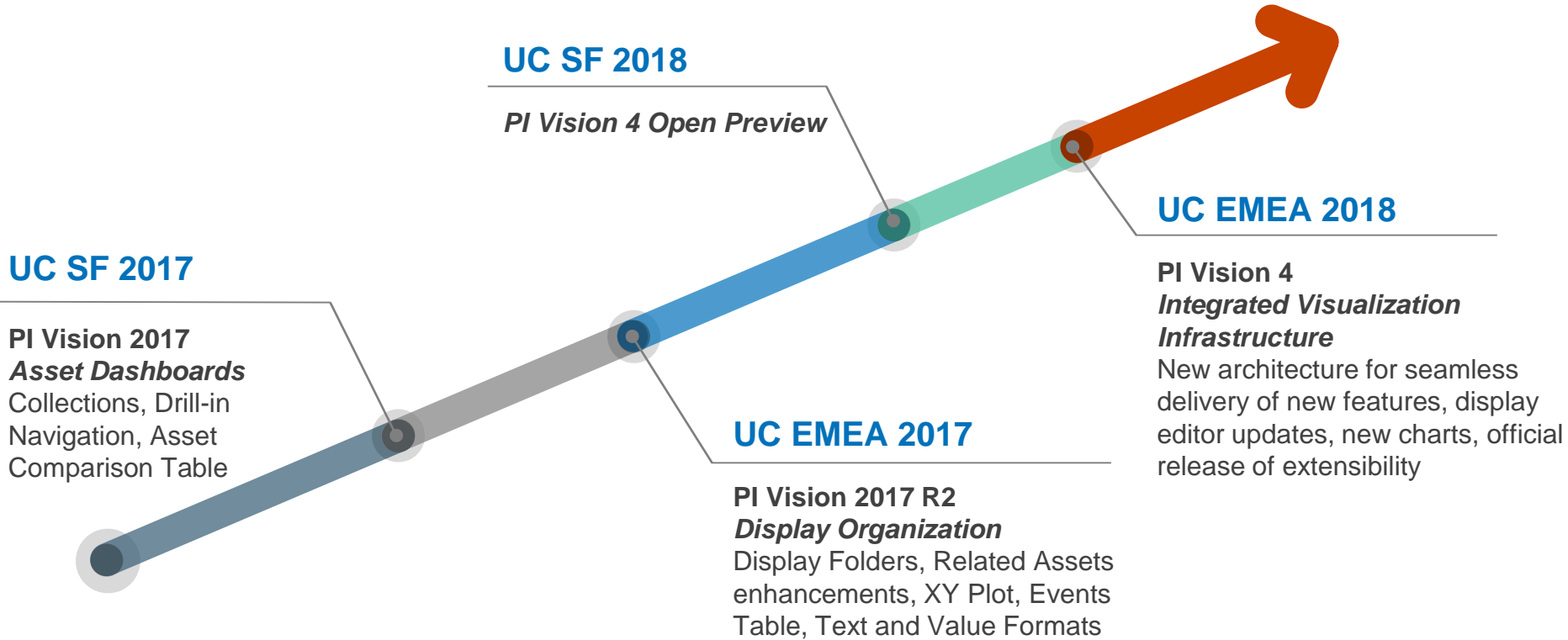
- ✓ **Trend Configuration**
- ✓ **Event Search**
- ✓ Event Comparison Displays
- ✓ **Event Details and Acknowledgement**

2017

- ✓ Collections
- ✓ Graphics Library
- ✓ Pinned Events
- ✓ Drill-in Navigation



PI Vision Roadmap



PI Vision 2017

Drill-in Navigation

Mine Truck Landing Page

Mine_Truck_1 Mine_Truck_2 Mine_Truck_3 Mine_Truck_4
 Mine_Truck_5 Mine_Truck_6

Mine_Truck_2 Overview

Brake Display Frame Display Frame Roll Analysis

Manufacturer	Type	Driver	Status	Ground Speed	Load
Volvo	V940	Tommy TooFast	Running	0 mph	0 ton
Route B			Running		

Collections

Model PizzaStar Speed

Model Jcar SuperVan Speed

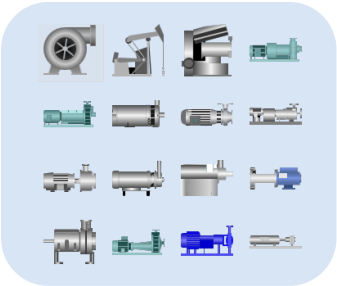
Model StoreRunner Speed

Pinned Events

Search Results

- OSIsoft_201581181621 (CLEANING) 8/11/2015 4:16:21 AM - 8/11/2015 6:46:49 AM
- OSIsoft_2015810231135 (CLEANING)
- OSIsoft_201581202655 (CLEANING)
- OSIsoft_2015810232451 (CLEANING)
- OSIsoft_20158519028 (CLEANING)
- OSIsoft_201585185135 (CLEANING)
- OSIsoft_2015853150 (CLEANING)
- OSIsoft_201584104839 (CLEANING)
- OSIsoft_201584103941 (CLEANING)

Graphic Library



Events Table

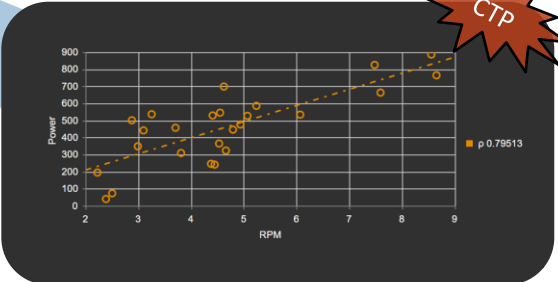
CTP

Start Time	End Time	Acknowledgment
2017-01-26 08:21:43.000	2017-01-26 07:14:43.000	Acknowledge
2017-01-26 07:23:43.000	2017-01-26 07:34:13.000	Acknowledged
2017-01-26 08:25:13.000	2017-01-26 08:25:13.000	Acknowledged
2017-01-26 08:29:13.000	2017-01-26 8:57:13.000	Acknowledge

Asset Comparison Table

Asset	Manufacturer	Driver	Engine RPM	Load	Status
Mine Truck 1	Caterpillar	Jason Rice	0	0	Running
Mine Truck 2	Volvo	Tommy TooFast	0	0	Running
Mine Truck 3	Komatsu	Edna Thompson	1,682.6	159.87	Running
Mine Truck 4	Caterpillar	Revill Swivel	0	0	Running
Mine Truck 5	Volvo	John Sintias	0	0	Running
Mine Truck 6	Komatsu	Steve Kwan	1,744.9	194.14	Running
Mine Truck 7	Volvo	Brian Bostwick	0	0	Running
Mine Truck 8	Caterpillar	Steve Kia	0	0	Running
Mine Truck 9	Caterpillar	Justin Brown	0	0	Running
Mine Truck 10	Volvo	Bob Bonkers	1,719.7	157.74	Running

XY Plot





PI Vision Demonstration



PI Vision Demonstration Part I



- Graphically rich dashboards via the new display editor
- Drill-down navigation links
- Future data charting
- Using symbol collections
- Viewing Event Frame table symbols

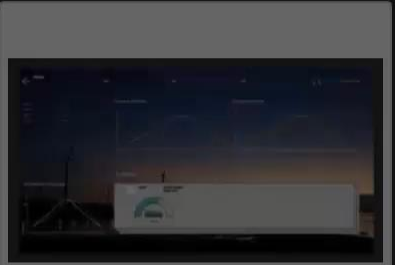


Search All Displays

Filter by Keywords

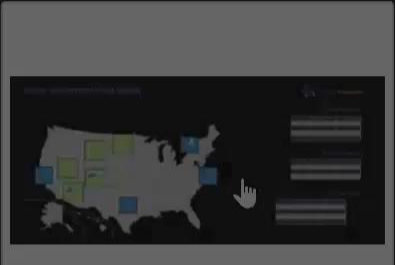
- All Displays
- Favorites
- My Displays
- Recent
- PI ProcessBook Displays >

All Displays (873)



Wind Farm Overview

OSI\pagemorin



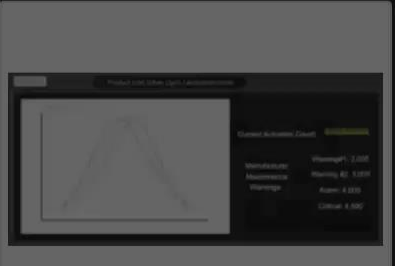
OSIsoft PowerGen Home

OSI\pagemorin



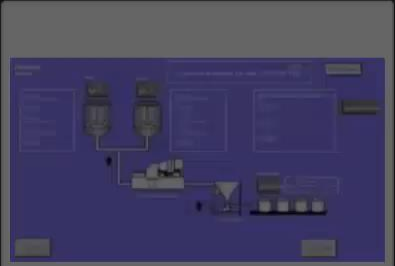
Wind Turbine Details

OSI\pagemorin



PC - ProductInletValve

OSI\TINA\desigint@os...



Issaquah Process

OSI\TINA\desigint@os...



Mixer Information

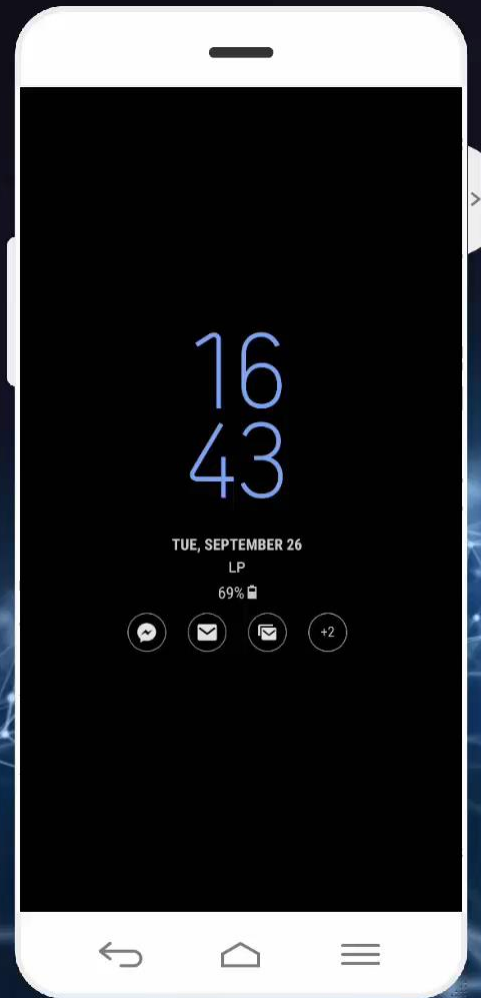
OSI\TINA\desigint@os...

PI Vision Demonstration Part II



- Notifications and data input via a mobile device
- Ad-hoc analysis from a mobile device
- Uploading photos
- Synchronized desktop and mobile dashboards
- Event Frame reporting: overlays, comparisons, and pinned events



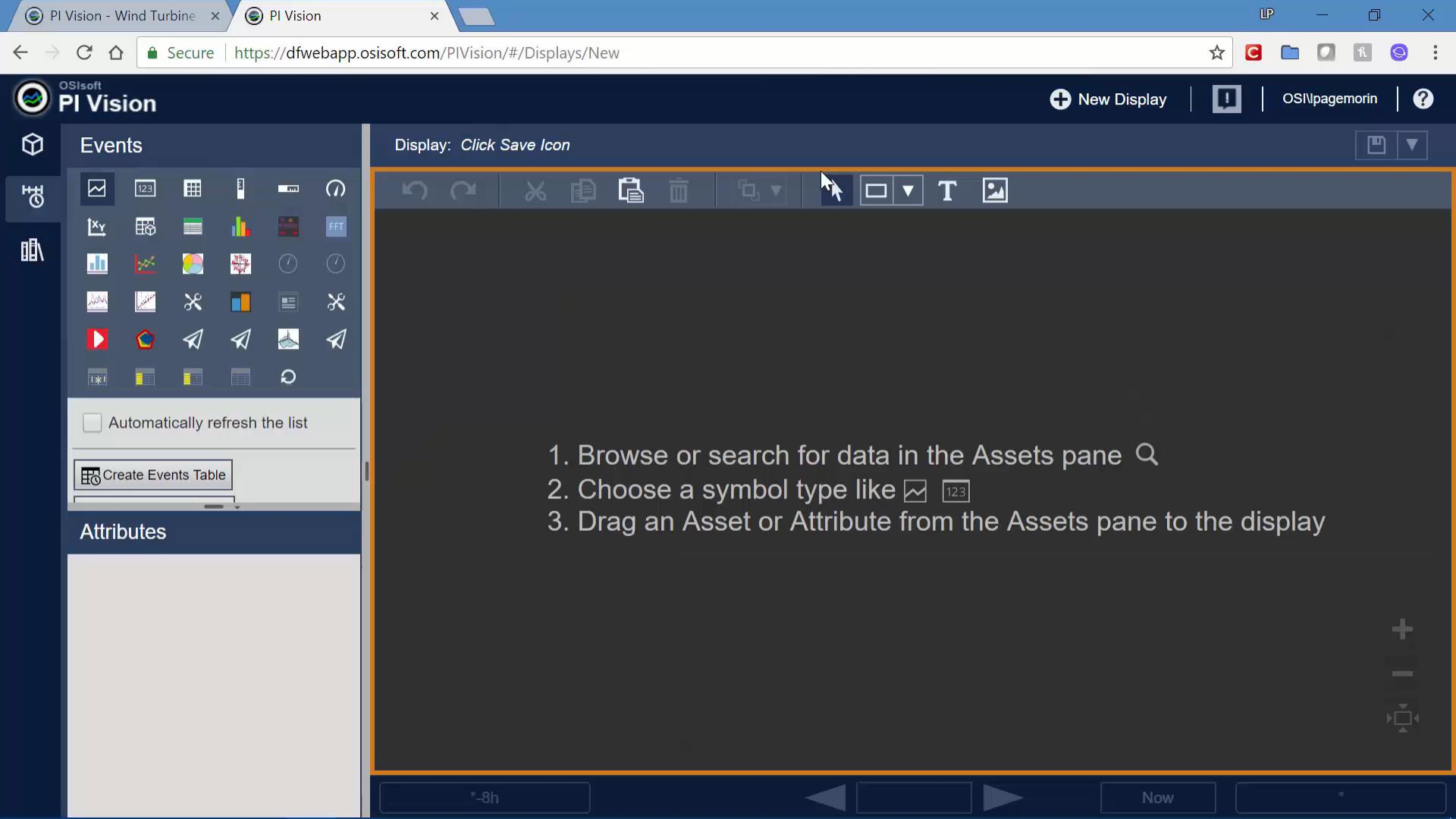


PI Vision Demonstration Part III



- Creating displays from scratch using the new display editor
- Comparing multiple assets using symbol collections
- Using the new graphic library
- Customizing dashboards by editing collection criteria





Display: *Click Save Icon*

Events





Automatically refresh the list

Create Events Table

Attributes



1. Browse or search for data in the Assets pane 🔍
2. Choose a symbol type like  
3. Drag an Asset or Attribute from the Assets pane to the display

*-8h

Now

PI Vision Demonstration Part IV



- Comparing attributes across multiple assets via asset comparison tables
- Configuring navigation links
- Customizing asset comparison table search criteria using limits
- Creating and configuring an events table symbol from scratch



Assets



Attributes

- Circuit Breaker Cut-ins
- Current L1
- Current L2
- Current L3
- Expected Power
- Generator 1 Temperature >
- Generator 1 Temperature Av...
- Generator 2 Temperature >
- Generator 2 Temperature Av...
- Generator Cooling Air Tempe...
- Generator Speed (CCU)
- Generator Speed (PLC)
- Generator Speed, Set Value 1
- Generator Speed, Set Value 2
- L1-N Voltage
- L2-N Voltage
- L3-N Voltage

Display: *Click Save Icon**

Ad Hoc Display



9/26/2017 8:57:41 AM

8h

Now

9/26/2017 4:57:41 PM



Demonstration Review

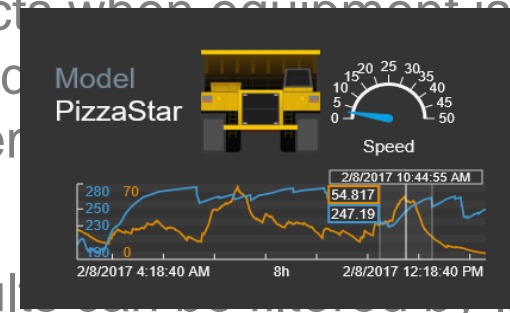


Collections: Spend Less Time Updating Displays



Group one or more symbols as a “collection” then add a context filter so the display reflects the assets you are interested in.

- The collection automatically reflects when equipment is added to the system



- Results are automatically updated with live data values

Asset and Events Table Symbols



Asset Table: easily view and compare asset performance in a table format.

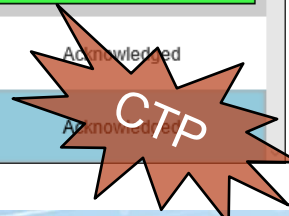
- Add dynamic search criteria to have the assets on the table update automatically

Asset	CIP Acid Tank Level	CIP Caustic Tank Level	CIP Supply Tank Level	recirculation EPWash State
CIP_123_SKID	31.82	63.221	0	non recirc
CIP_124_SKID	88.382	36.977	0.013409	non recirc
CIP_422_SKID	39.44	22.573	-0.0062218	non recirc
CIP_432_SKID	No Data	No Data	-0.0081825	non recirc

Event Table: always see the most important and relevant events.

- Use search criteria to show events based on asset type, severity, hierarchy, and more.

Event Name	Asset	Start Time	End Time	Acknowledgement
Engine Temperature High 2017-01-07 03:56:21.000	Sp6	1/7/2017 3:56:21 AM	In Progress	Acknowledge
Engine Temperature High 2017-01-07 10:45:51.000	Sp5	1/7/2017 10:45:51 AM	In Progress	Acknowledge
Gas Tank Level Low 2017- 03-09 06:49:13.000	Sp4	3/9/2017 6:49:13 AM	3/9/2017 9:24:13 AM	Acknowledge
Gas Tank Level Low 2017- 03-09 06:49:13.000	Sp4	3/9/2017 6:49:13 AM	3/9/2017 9:24:13 AM	Acknowledge



Asset Table: View and Compare Assets



Asset	Manufacturer	Driver	Engine RPM	Load	Status
Mine Truck 6	Komatsu	Steve Kwan	1,744.9	194.14	Running
Mine Truck 7	Volvo	Eric Buschick	0	0	Running
Mine Truck 8	Caterpillar	Steve Kia	0	0	Running
Mine Truck 9	Caterpillar	Justin Brown	0	0	Running
Mine Truck 10	Volvo	Bob Bonkers	1,719.7	157.74	Running

Add search and filter options to make the content of the table dynamic

Asset Type
Mining_Mine Truck

Asset Attribute
Status = Running
Load > 100

Now the table shows only the mine trucks that are running and have a load of a certain weight

New PI Vision User Types



create and

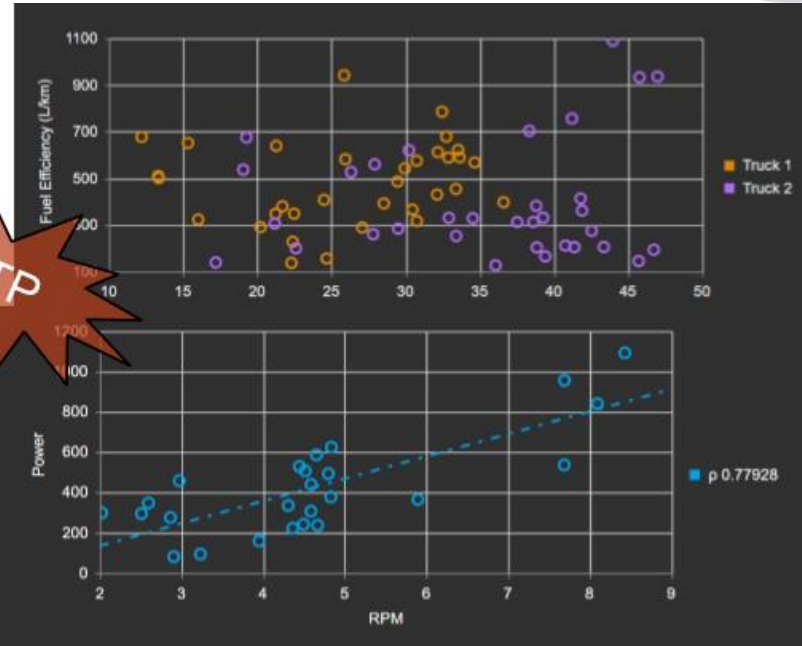
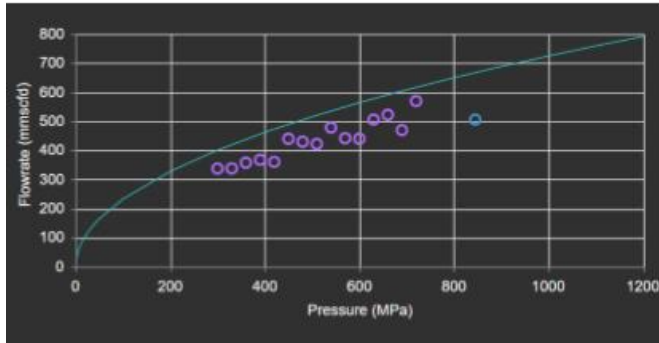
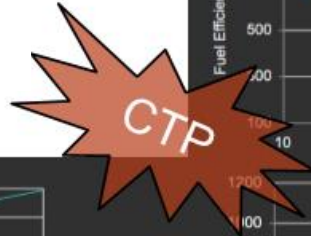
- **Publisher**
 - Targeted for content creators who need the ability to save new dashboards and analysis views.
 - The Publisher user type is equivalent to the traditional PI Coresight user that has existed in all previous versions of the product.
- **Explorer**
 - The Explorer user type can not save any new displays or changes to existing displays.
 - An Explorer can use the full power of existing displays to switch context, adjust time and investigate events. Explorers can even create ad-hoc displays but they do not have the ability to save any of this work.



XY Plot: Correlated Data



- Identify correlations between attributes
- Compare multiple assets
- Compare multiple time ranges



Pinned Events



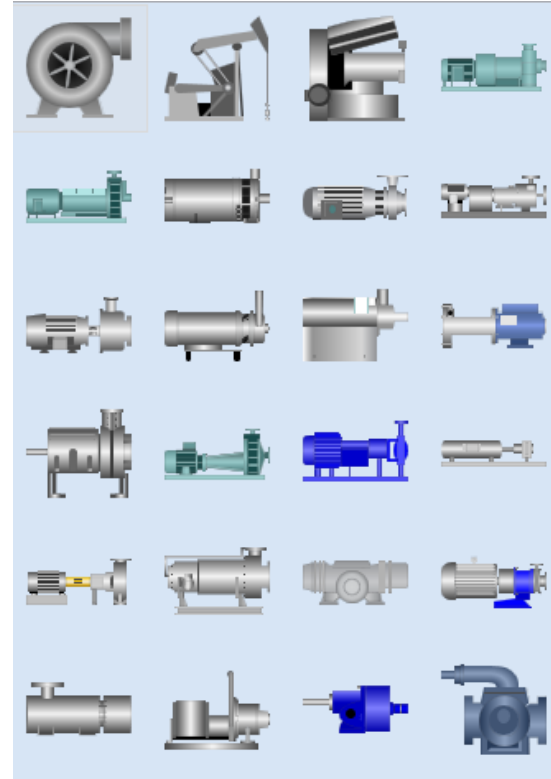
- Identify batch process deviations by comparing to a reference
 - “Pin” one or more events, to be used as a reference
 - Pinned events are saved with the display

The screenshot shows the 'Events' interface with a list of events. The first event, 'OSIsoft_201581181621 (CLEANING)', is pinned and highlighted in blue. A context menu is open over this event, showing options: 'Hide Event', 'Event Details', 'Compare Similar Events by Name', 'Compare Similar Events by Type', and 'Pin Event'. The 'Pin Event' option is highlighted in blue. Other events in the list include 'OSIsoft_201585185135 (CLEANING)', 'OSIsoft_201581202655 (CLEANING)', 'OSIsoft_20158...', 'OSIsoft_20158...', 'OSIsoft_20158...', 'OSIsoft_201584104839 (CLEANING)', and 'OSIsoft_201584103941 (CLEANING)'. The interface also includes a search bar, a checkbox for 'Automatically refresh the list', and an 'Edit Search Criteria' link at the bottom right.



Graphics Library

- Use an extensive library of graphic symbols to enhance a display



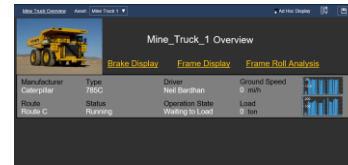
Drill-in Navigation

- Configure a URL link on any symbol
 - Link to another display or another website.
 - When connecting to another display, the context (time and/or selected asset) can be passed as part of the link

Overview display



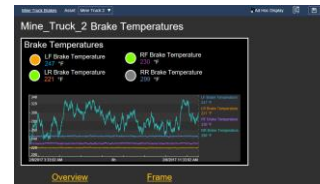
Truck1



Truck2



Truck2 Brakes



Truck2 Frame

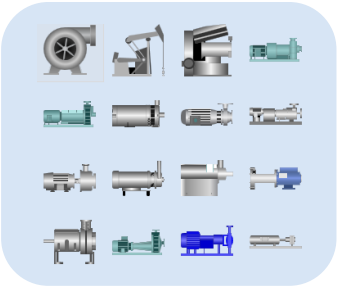


PI Vision 2017

Drill-in Navigation

Collections

Graphic Library



Pinned Events

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- OSIsoft_201585185135 (CLEANING)
- OSIsoft_2015853150 (CLEANING)
- OSIsoft_201584104839 (CLEANING)
- OSIsoft_201584103941 (CLEANING)

Events Table

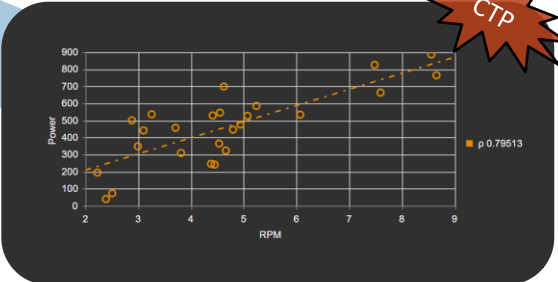
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XY Plot



- Organization of PI Vision displays in folders
- Related Assets updates
- Refinements and release of XY Plot and Events Table
- Other improvements
 - Improved font size and number formatting control
 - Attribute value hyperlinks
 - Multi-state on the Asset Comparison Table



감사합니다

谢谢

Danke

Merci

Gracias

Thank You

ありがとう

Спасибо

Obrigado



Contact Information

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OSIsoft



Questions?

Please wait for the **microphone** before asking your questions



Please state your **name & company**

Please remember to...

Complete the
Post Event
Survey

