PI Vision 2017

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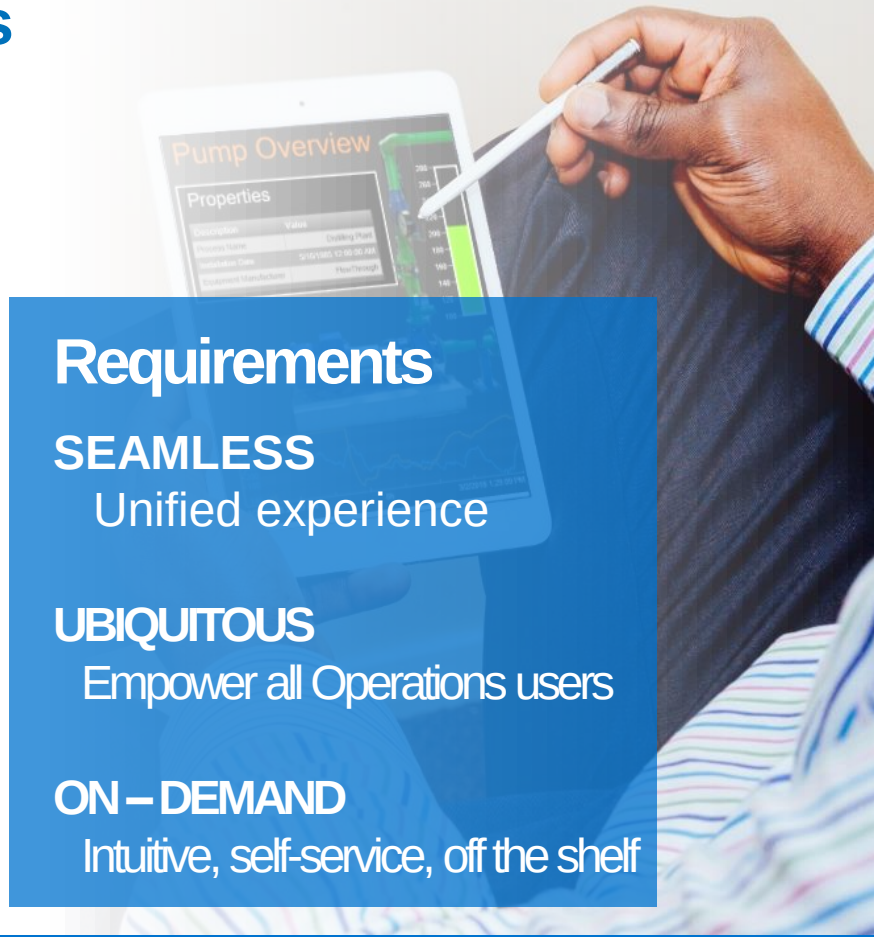
Our commitment to YOUR needs

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
Empower all Operations users

ON – DEMAND
Intuitive, self-service, off the shelf

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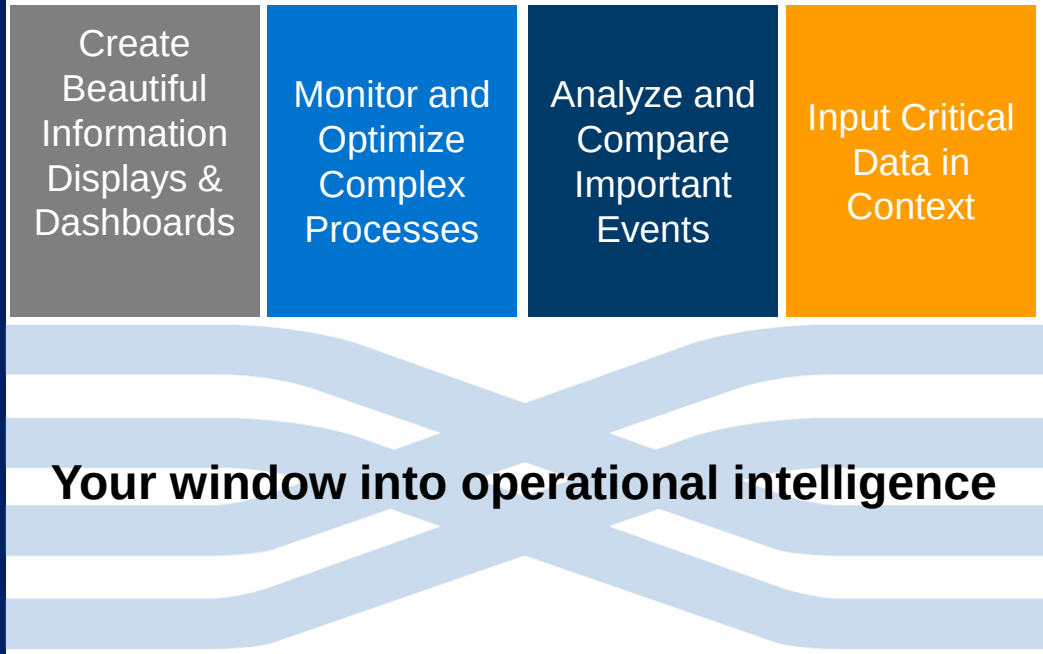
PI Vision

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



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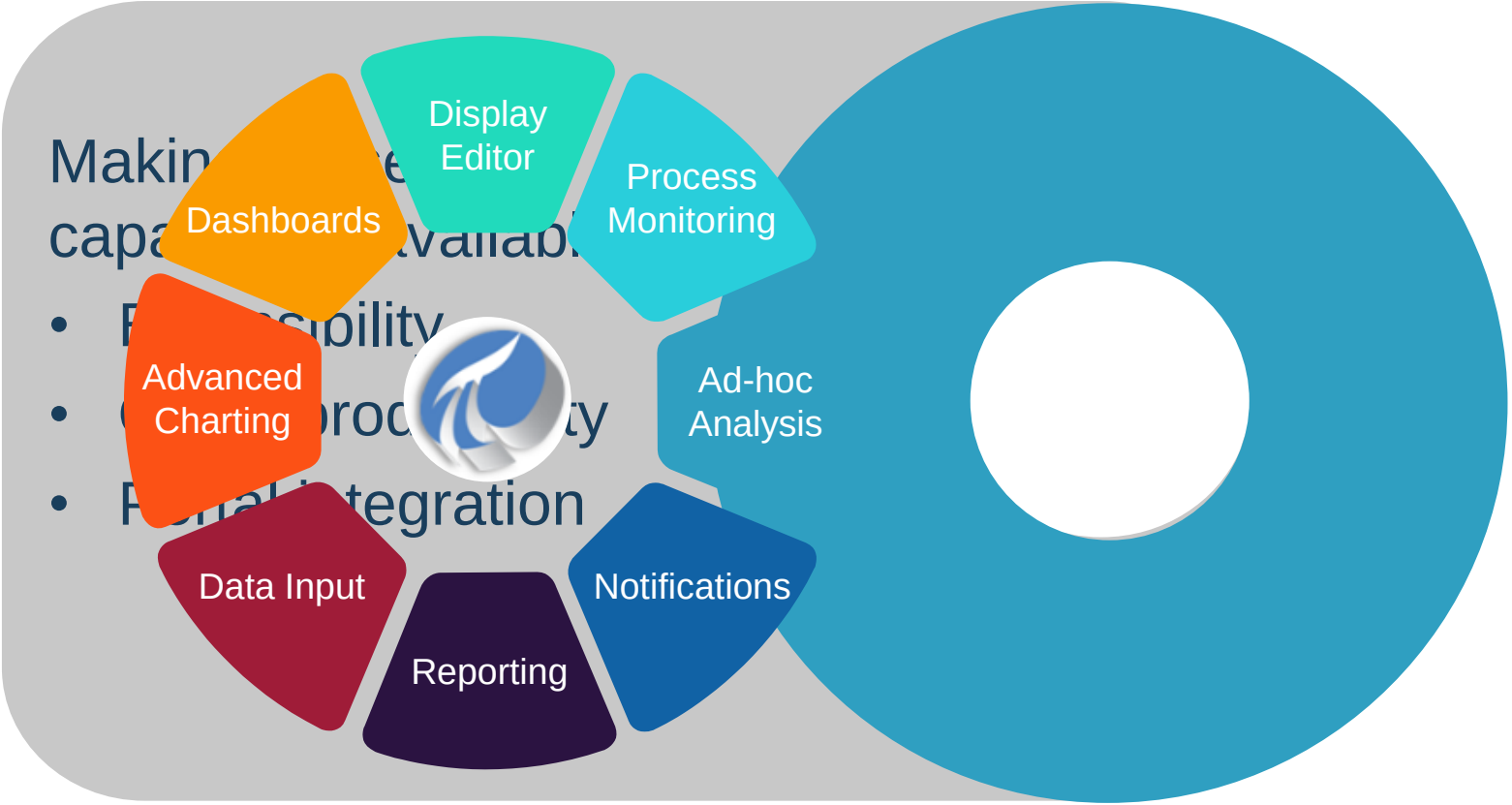
Unified visualization infrastructure: core capabilities



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Visualization Execution Strategy – Focus & Goals

Modern architecture
Leverage latest technology to stay relevant

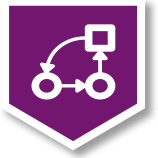
Partner enablement
Actively support partners to develop solutions on our platform

Value-add features
Enable customers to solve new problems and derive more value

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

Process Graphics
Provide PI ProcessBook customers a path forward

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



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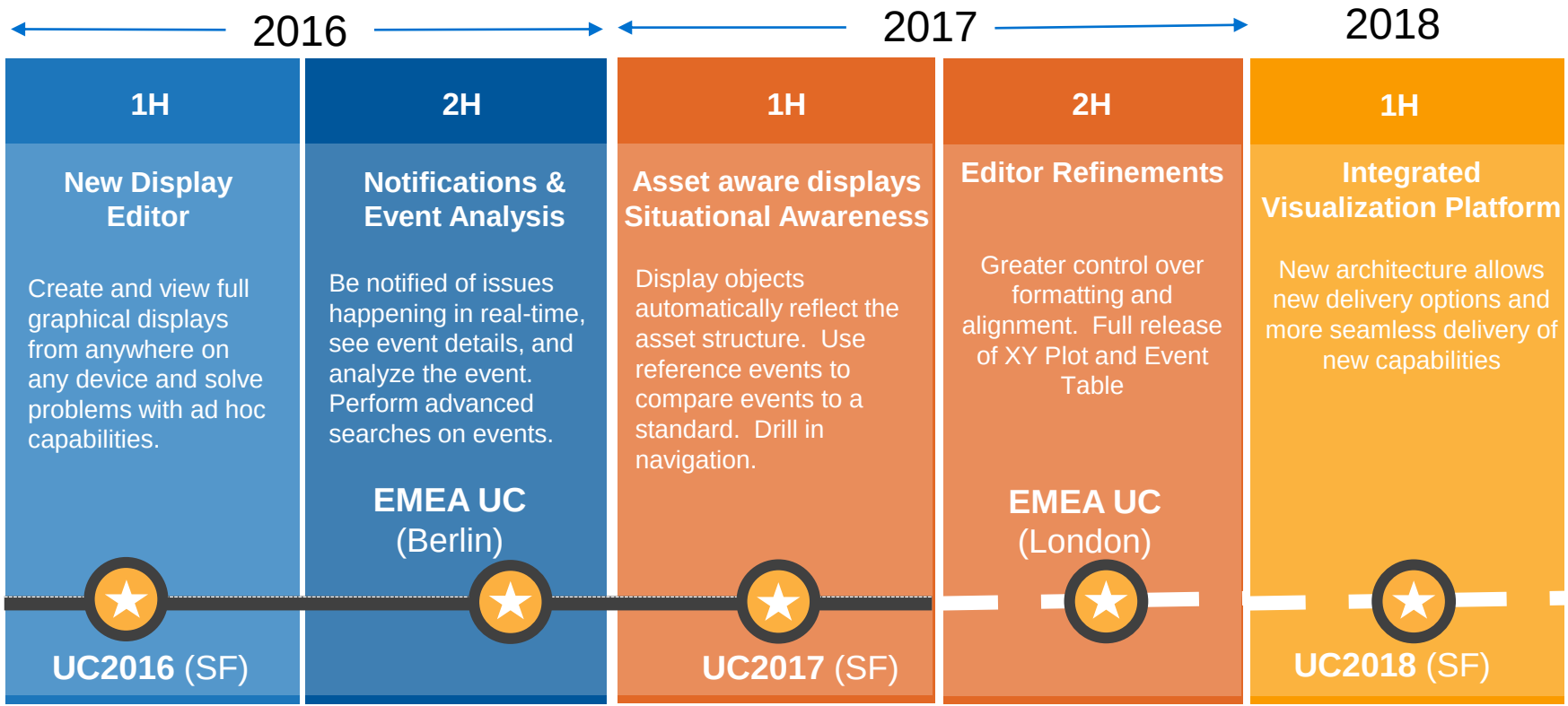
Visualization Roadmap



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PI Vision 2017

- Collections
- New Asset and Event table
- New User Types
  - Publisher
  - Explorer
- XY Plot Symbol
- Pinned Events
- Graphic Library
- Drill-in Display Navigation

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Collection – Spend less time manually 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 or removed from the system.
- Results can be filtered by live data values

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Asset and Events Table

Asset Table- Easily view and compare asset performance in a table format.

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	Acknowledged
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	Acknowledged

CTP

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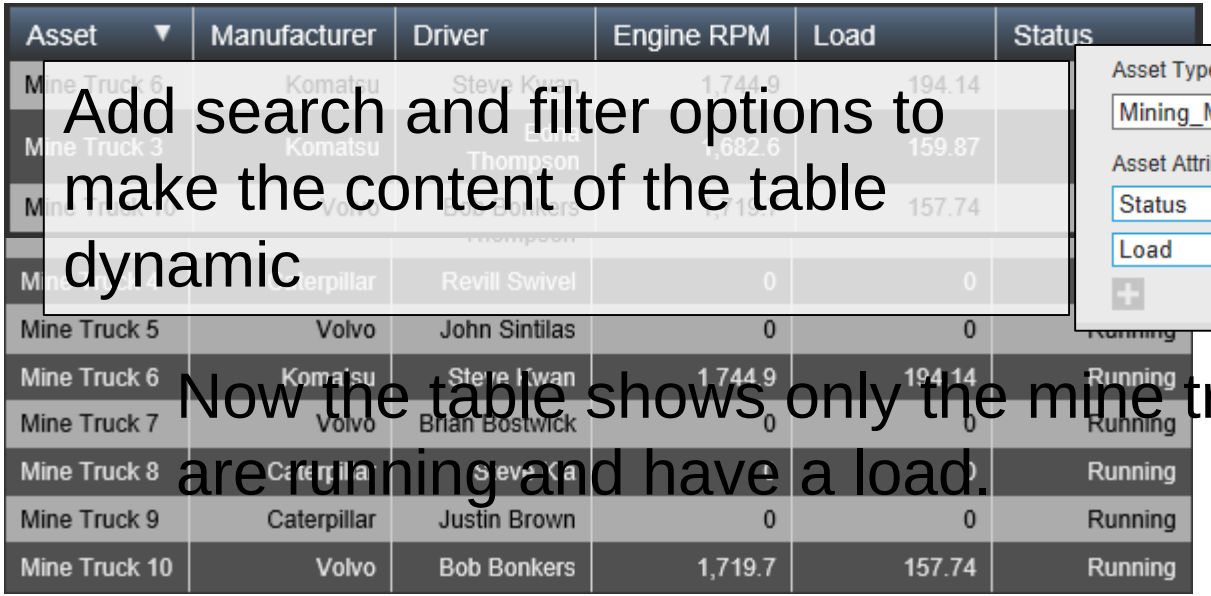
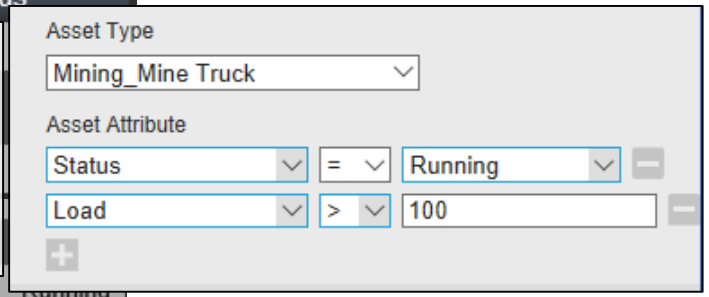
Asset Table- Easily view and compare asset performance



Asset	Manufacturer	Driver	Engine RPM	Load	Status
Mine Truck 3	Komatsu	Thompson	1,682.6	159.87	
Mine Truck 4	Caterpillar	Revill Swivel	0	0	
Mine Truck 5	Volvo	John Sintilas	0	0	
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 Kwan	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



Now the table shows only the mine trucks that are running and have a load.

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User Types- Assign varying levels of capabilites

- **Publisher**
  - Targeted for content creators who need the ability to create and 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.

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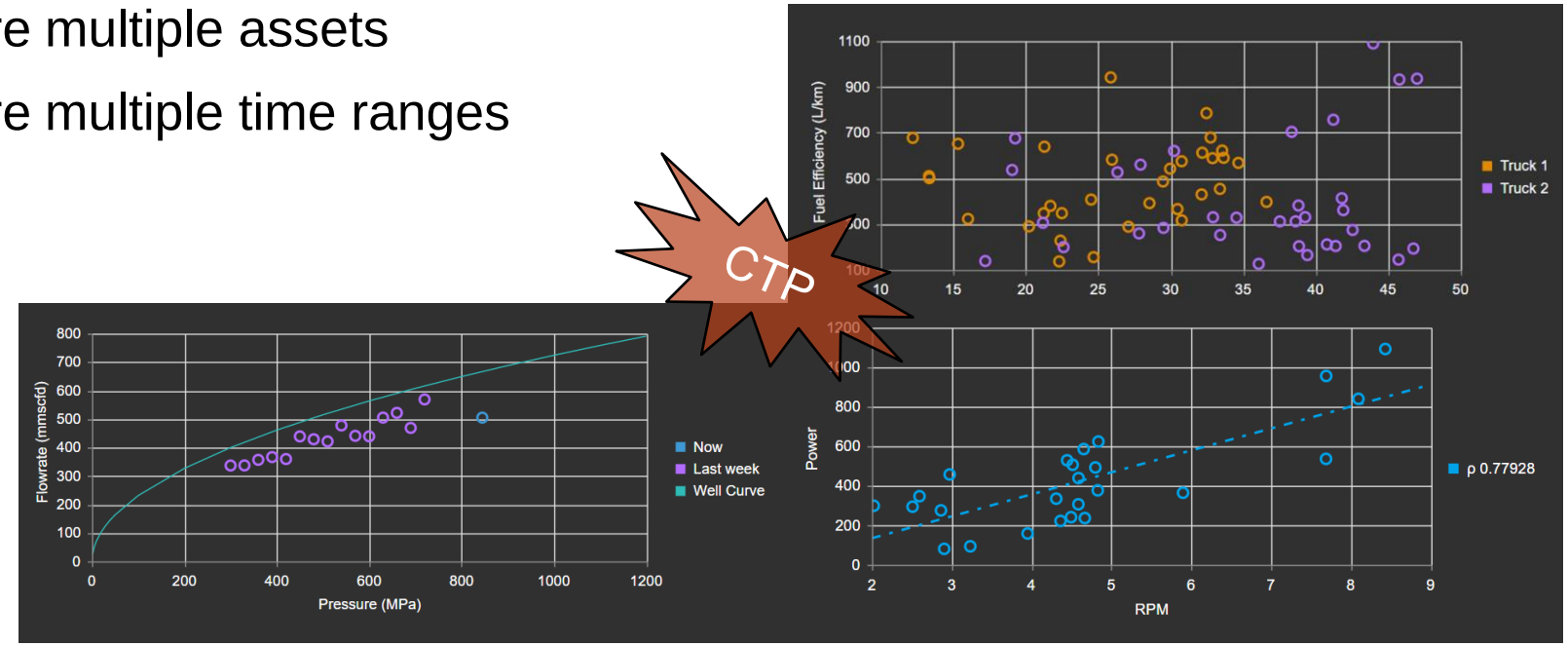
XY Plot – Correlated data

- Correlations between attributes
- Compare multiple assets
- Compare multiple time ranges



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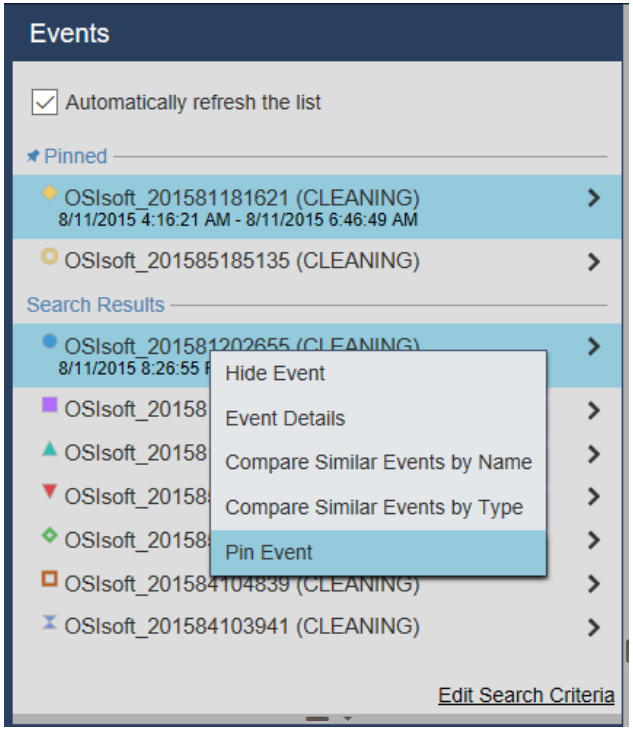
Pinned Events- Reference or “Golden” event

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



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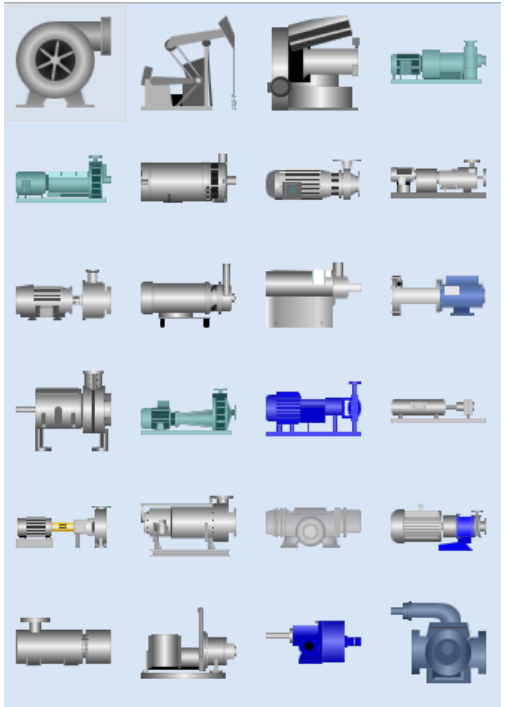
Graphics Library- Standard library of industrial graphics

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



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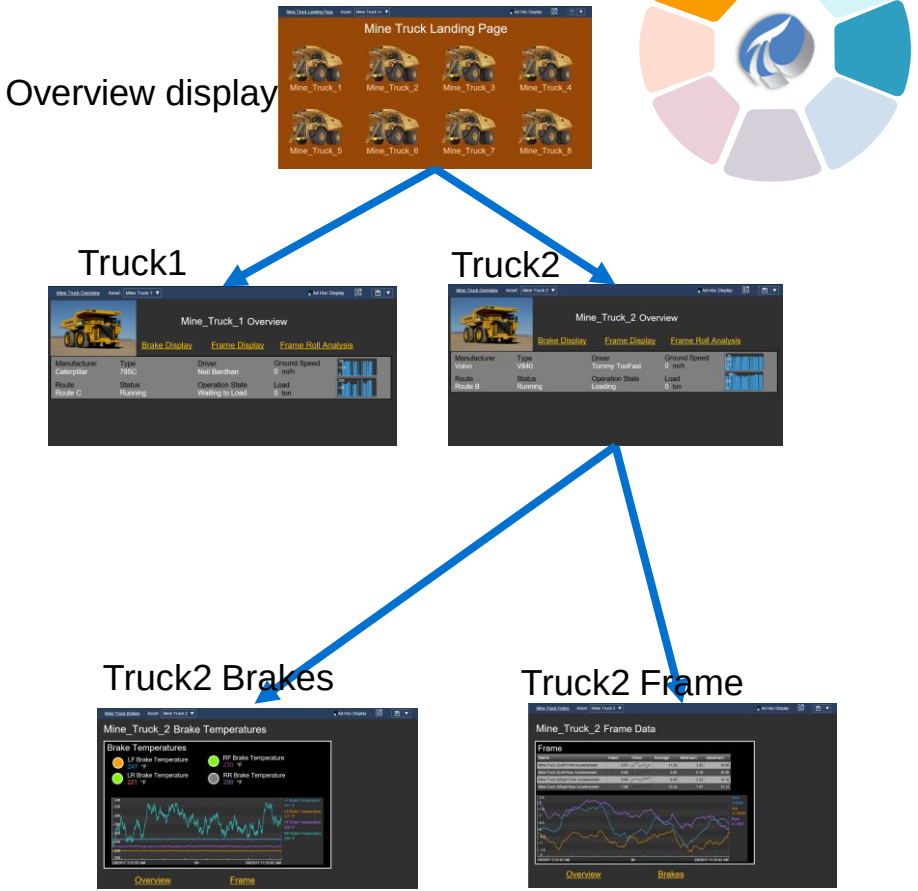
Drill-in Navigation- Dashboarding

- 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



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Demo

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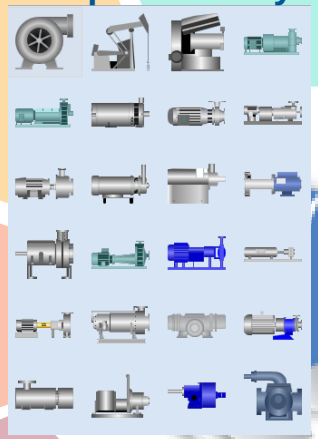
Collection

Graphic Library

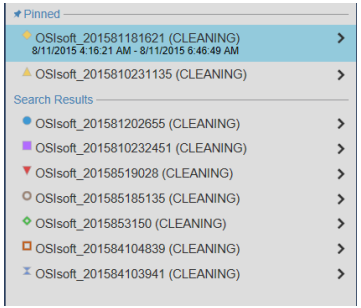


Asset and Events Tables

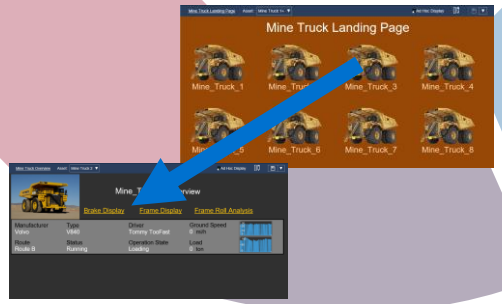
CTP

Event Name	Asset	Start Time ▲	End Time	Acknowledgeme
Engine Temperature High 2017-01-26 06:21:43.000	SP4	1/26/2017 6:21:43 AM	1/26/2017 7:57:43 AM	Acknowledge
Engine Temperature High 2017-01-26 07:14:43.000	SP6	1/26/2017 7:14:43 AM	1/26/2017 8:22:43 AM	Acknowledge
Gas Tank Level Low 2017-01-26 07:23:43.000	SP8	1/26/2017 7:23:43 AM	1/26/2017 7:32:13 AM	Acknowledged
Gas Tank Level Low 2017-01-26 07:34:13.000	SP8	1/26/2017 7:34:13 AM	1/26/2017 7:36:13 AM	Acknowledged
Engine Temperature High 2017-01-26 08:25:13.000	SP6	1/26/2017 8:25:13 AM	1/26/2017 8:25:43 AM	Acknowledged
Engine Temperature High 2017-01-26 08:29:13.000	SP6	1/26/2017 8:29:13 AM	1/26/2017 8:57:13 AM	Acknowledge

Pinned Events

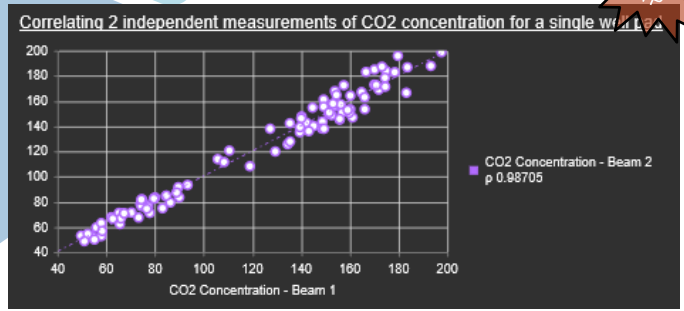


Drill-in Navigation



XY Plot

CTP



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PI Vision 2017 R2

What's coming next…

- Refinements for XY Plot and Events Table
- Server side enhancements for PI Web API
  - Performance and Scalability
  - Groundwork for client side data access
- Editor improvements
  - Snap to Grid
  - Display printing
  - Improved font size control
  - Display level number format

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State your **name & company**

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Complete the Online Survey for this session

http://bit.ly/uc2017-app

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谢谢

Danke

Merci

Gracias

Thank You

ありがとう

Спасибо

Obrigado

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