



PI Event Frames, How to Provide Context to Critical Events

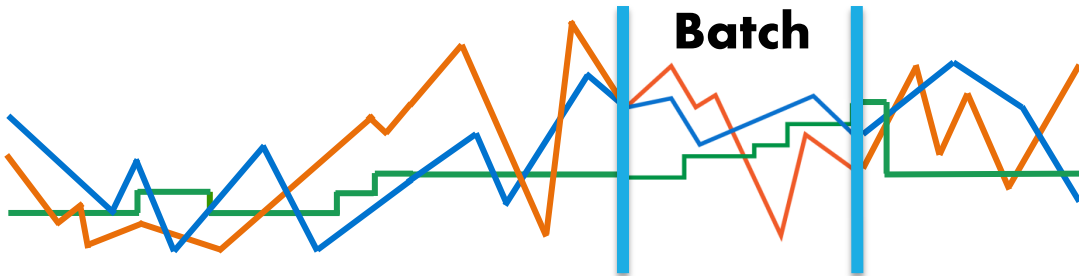
Presented by **Todd Brown & Dan Fishman**



PI Event Frames

PI Event Frames automatically bookmarks PI time-series data so that it's more meaningful to engineers and business users, AND easier to for them to find, analyze, and report on.

**Downtime
Excursion
Batch**



PI Event Frames

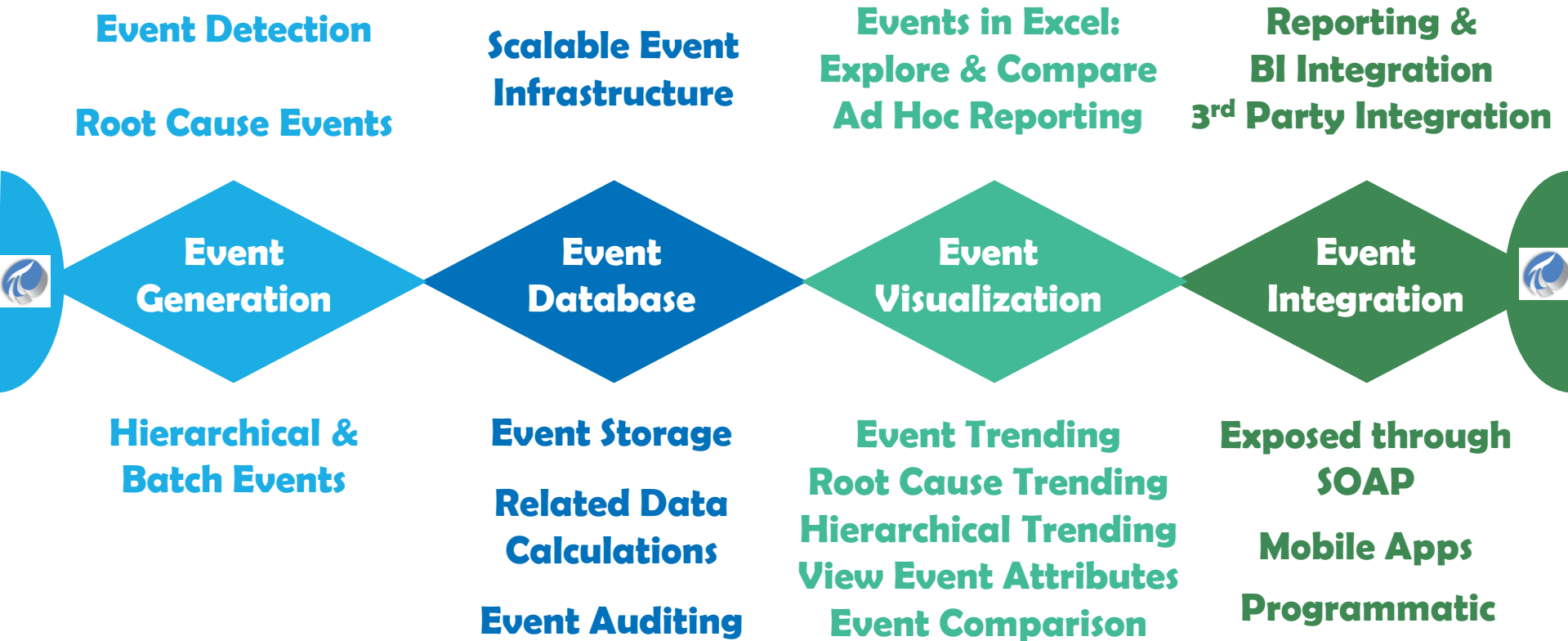
PI Event Frames automatically bookmarks PI time-series data so that it's more meaningful to engineers and business users, AND easier to for them to find, analyze, and report on.

**Downtime
Excursion
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Related Data!

Event Attribute	Value
Name	Ex 20121215-0002
Start	15-Dec-2012 10:35:02
End	15-Dec-2012 10:47:26
Duration	12 min, 24 sec
Asset	Boiler-352
Excursion Type	High Violation
Fuel Gas Flow.Avg	37.12 k sft3/h
Fuel.Start	823.48 k sft3/ton
myPIKPI.Max	47.19 bbl/d

PI System in 2015: Event Infrastructure Capabilities



What value do you see PI Event Frames bringing to your company ?

“Clearer picture of my process.”

“Easier Batch Analysis.”

“Easily Analyze Events.”

“Saves a lot of time to automatically link data to events.”

“More configuration, less programming.”

“View our time series data in a meaningful way.”

“Easier reporting.”

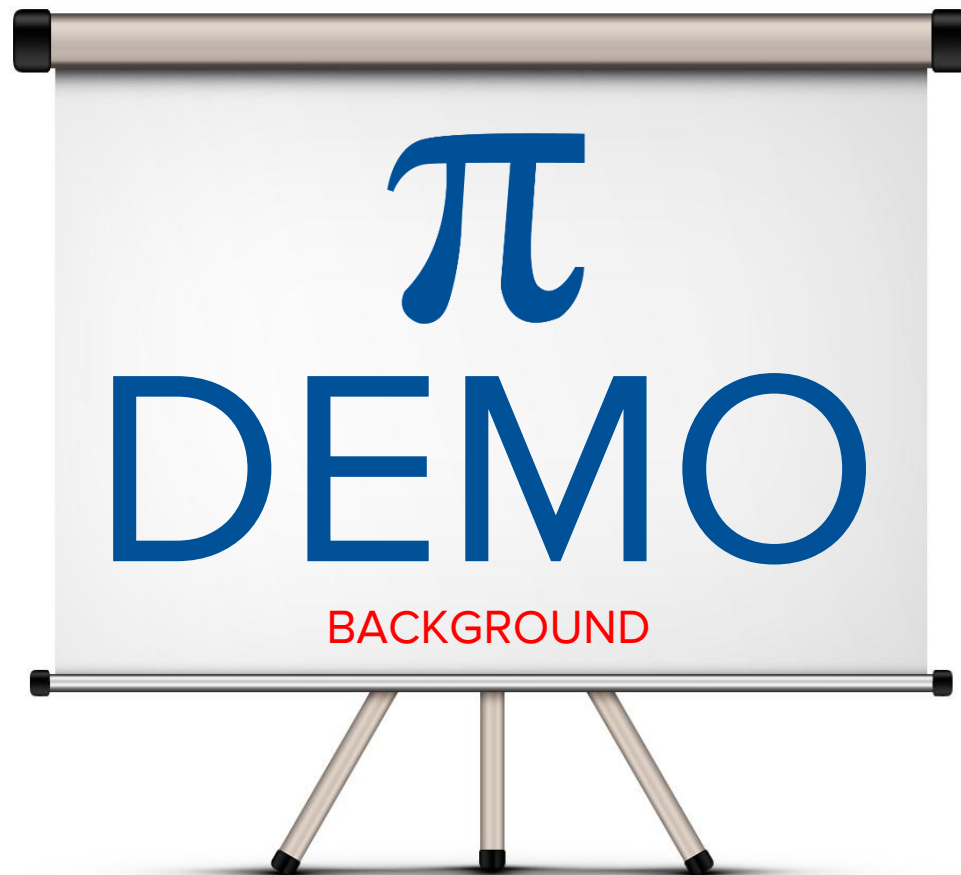
“Early event detection before they become a problem.”

“An integrated system is a force multiplier.”

“Easily find event related data.”

“Drive events from real time data, not manual data entry.”

“Easily surface abnormal events.”



*-2 years

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UC2013 ...



*-1 years

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UC2014 ...



*

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UC2015

...

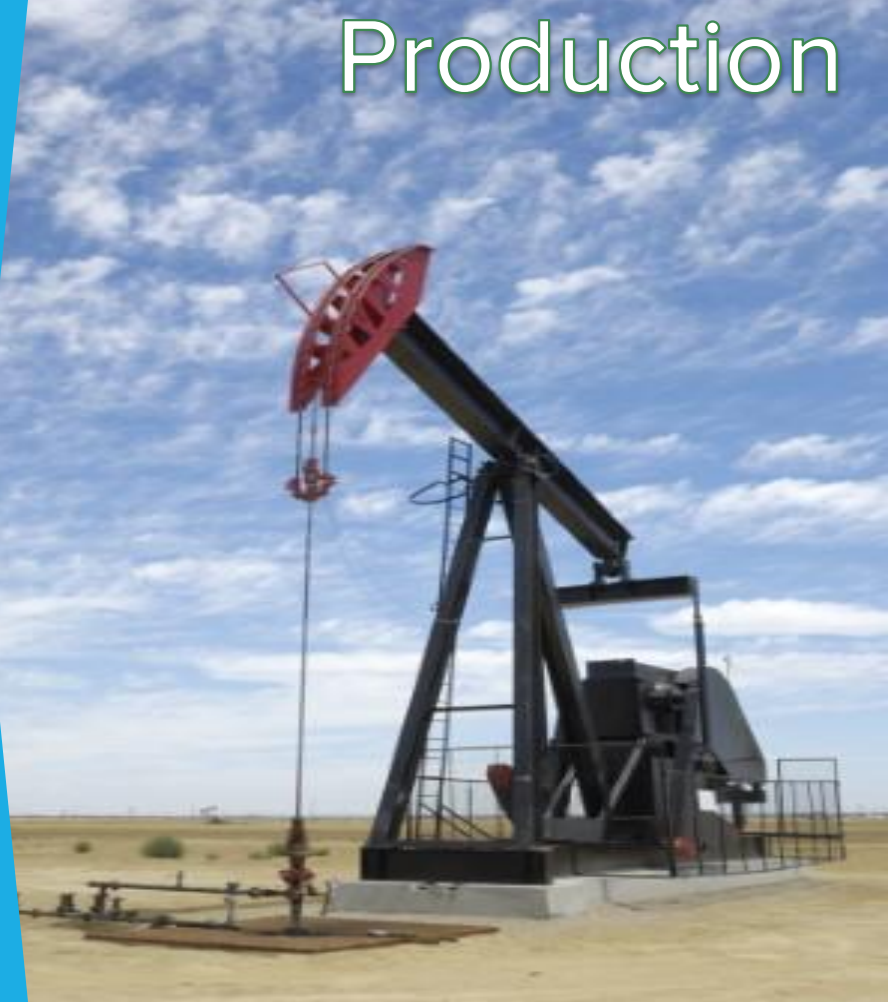
Oil & Gas



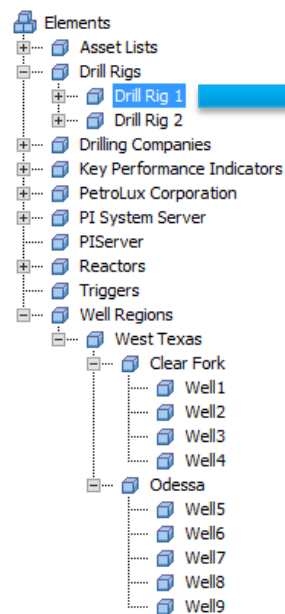
Drilling



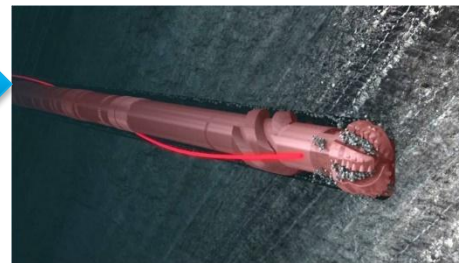
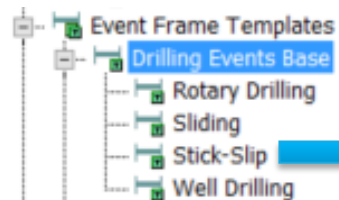
Production



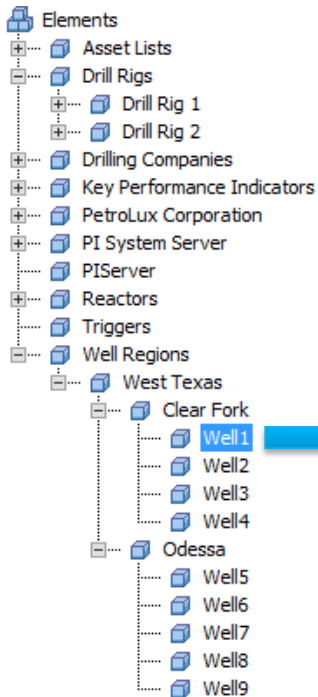
Drilling



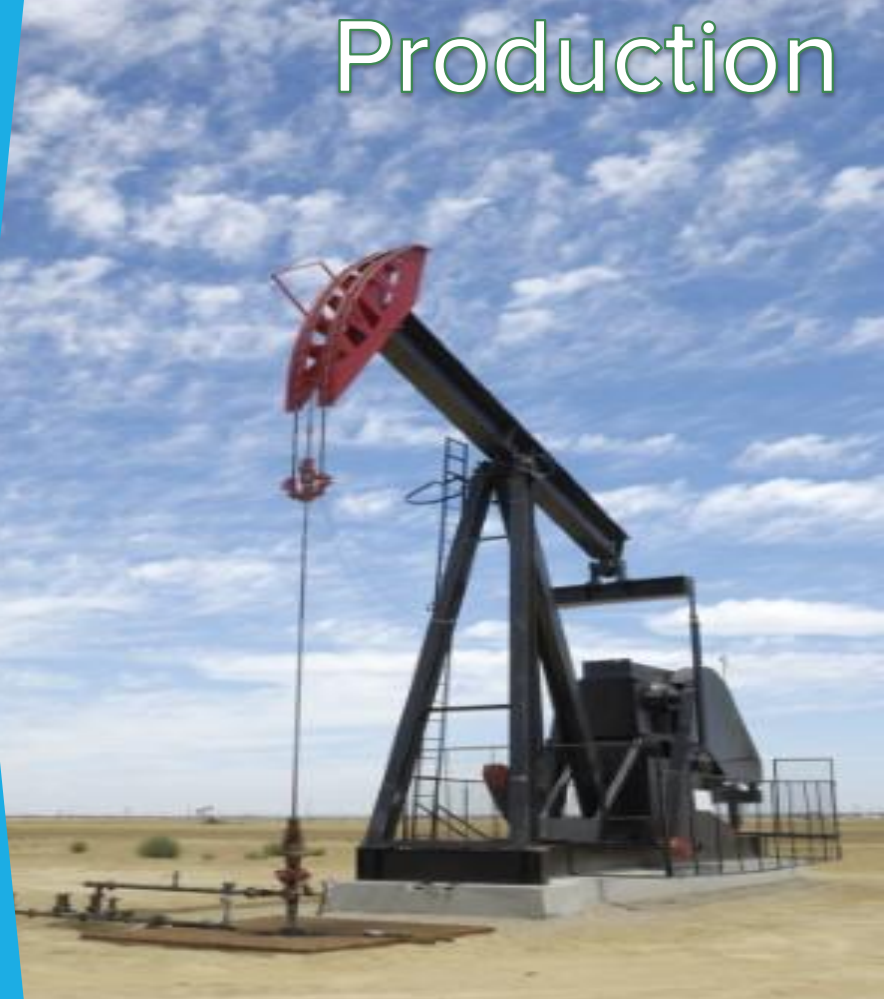
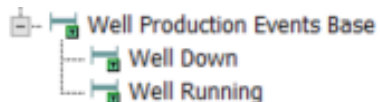
Category: Operational Data		
Bit Position		17049.80078125 ft
Bit Weight		-0.028619397431612 klb
Block Height		3.05160784721375 ft
Diff Press		78.9392318725586 psi
Flow In Rate		49.99176025390625
Hole Depth		17050.828125 ft
Hook Load		43.5204582214355 klb
Mud Weight In		1037.96557617188 lb/US gal
Pump Pressure		79.0315628051758 psi
ROP		-0.043539393693208694
Top Drive RPM		-0.0241858921945095 RPM
Top Drive Torque		-0.017585041001439095
Category: Well Information		
Midas Number		42-501-20130-07-00
Well Name		Done
Well Name State		Done

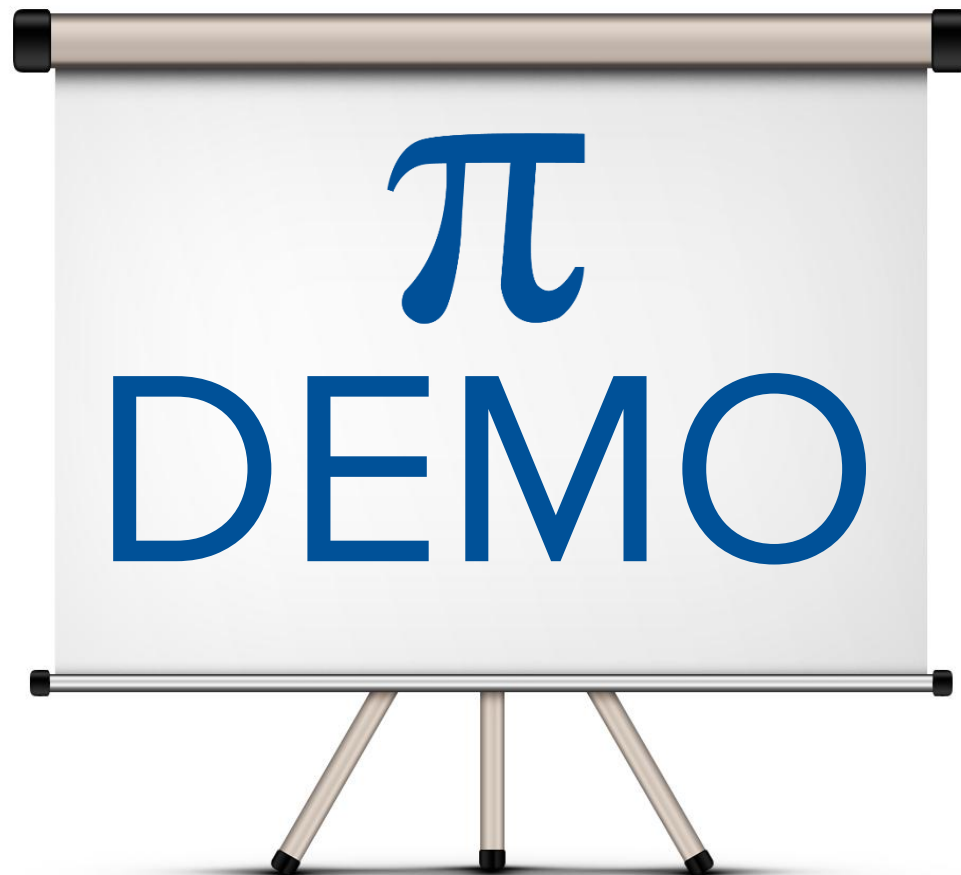


Production



Category: Real-time data		
Bottom hole pressure	10813.2443147773	psia
Casing pressure	1780.68244866127	psia
Casing temperature	53.1148139541572	°F
Gas Gravity	0.98066356383760622	
Line Pressure	1430.96652484078	psia
Load Ratio	1.7038491327991	%
Power Consumption	81.1968394700423	kW
Production Rate	810.854775417063	mscfd
Tubing pressure	1184.81927513369	psia
Tubing temperature	91.8639555628709	°F
Well life	340.541666666667	d
Category: Temperature		
Casing temperature	53.1148139541572	°F
Tubing temperature	91.8639555628709	°F
Category: Time tracking		
Category: Well Information		
Asset Name	Well1	
Bore Head	2.5 in	
Date of installation	4/13/2014 3:03:20 AM	
Date of production start	4/19/2014 5:37:00 AM	
Gas Gravity	0.98066356383760622	
Manufacturer	Schlumberger	
Midus Number	42-501-20130-03-00	
Model	NA	
Tubing Diameter	2 in	
Well Type	Gas	





PI Event Frames Demo Recap

AF Asset Analytics (Event Detection)

- Configurable Event Detection
- Create Rules Once, Apply to Many
- History Regeneration
- Root Cause Events

PI Coresight (Related Events)

- Automatically Discover Related Events
- Event Trending
- Root Cause Trending
- View Event Attribute Values
- Event Comparison (Overlay Trending)

PI DataLink (Events in Excel)

- Explore Events and Compare events
- Easy Event Analysis and Reporting
- Build Flexible Ad hoc Reports Out of the Box

PI Connectors

- Easy to configure
- Build tags automatically
- Build an AF model representing your source data automatically
- Collect the data
- Robust with buffering and other features

PI Connectors for O&G

- PI Connector for CygNet
- PI Connector for Wonderware Historian
- PI Connector for WITSML

Want to know more?

Stay in this room for the next session @ 3:30 pm!

Collect your Data in Context with PI Connectors



Roadmap Update



PI Event Frames Roadmap



2012

- PI AF: PI Event Frames Database
- PI AF SDK: Programmatic Access

2013

- PI Coresight: Related Events
- PI Coresight: Hierarchical Events
- PI Event Frames Generator
- PI System Access: PI OLEDB Enterprise, PI Web Services, PI JDBC

2014

- PI AF Analytics: Event Detection
- PI DataLink 2014: Events in Excel
- PI AF 2015: EF Value Capture, Locked EFs
- PI AF 2014: Audit Trail Viewer
- PI Web API: Initial EF Support

2015

- PI Server 2015: Batch to EF Migration
- [TBD]
- PI Coresight: Event Comparison

In Development
(not released)

2016

- [TBD]
- PI Coresight: Batch Event Comparison
- PI Coresight: Process Monitoring
- PI Notifications
- RtReports



PI Event Frames

Bookmarks for your
Real-Time Data

Stick-Slip

Breaker Trip

Downtime

Your Data

Startup

High Temperature

Batch

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Questions

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

State your
name & company





THANK YOU