

OSIsoft®

USERS 2013 CONFERENCE

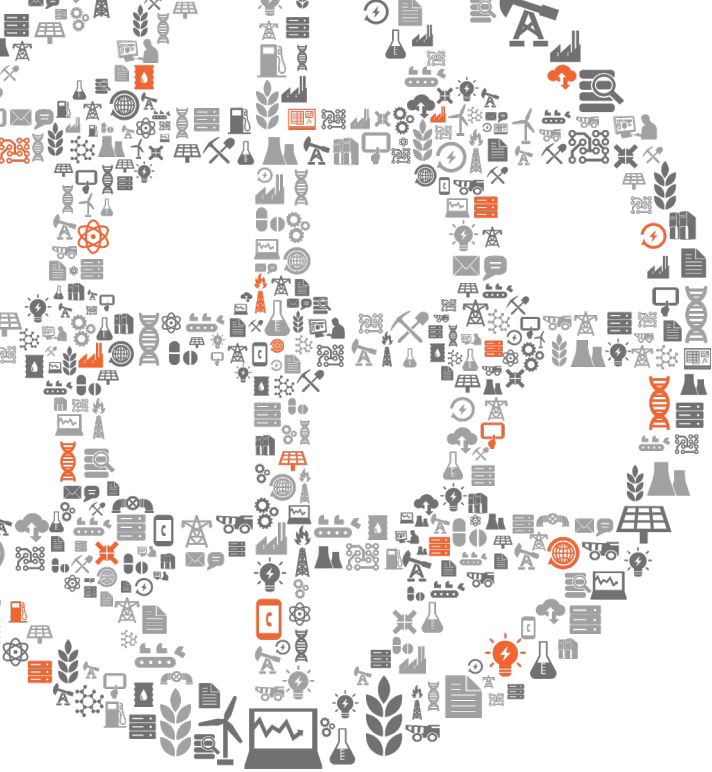
The Power of Data

THRIVING

IN A

WORLD OF

CHANGE

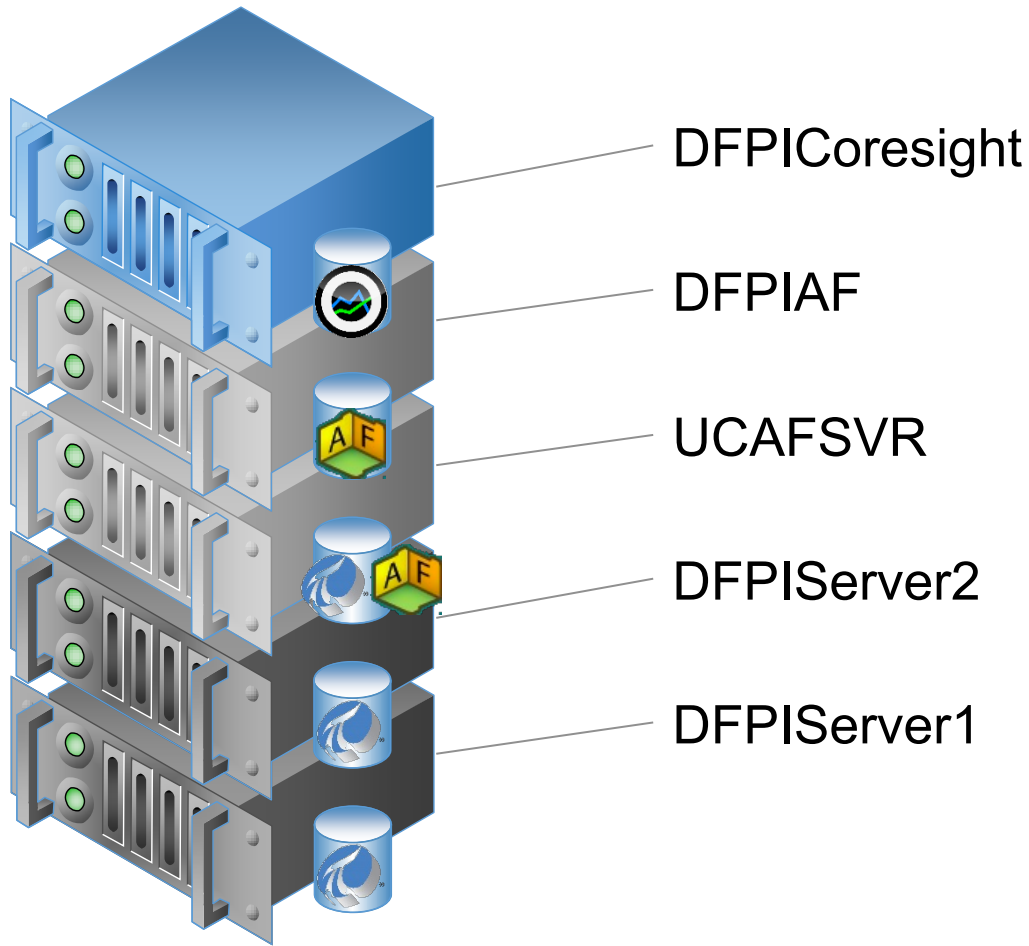


A Day in the Life of an Asset in the PI System

Presented by **Steve Kwan** and **Chris Coen**, OSIsoft

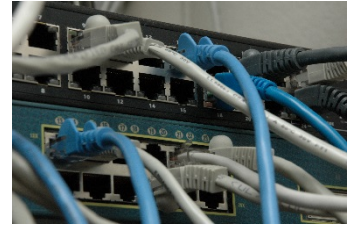
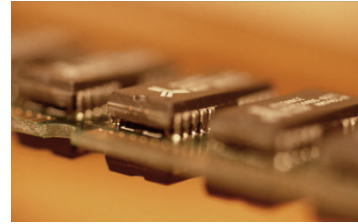
Demo Framework



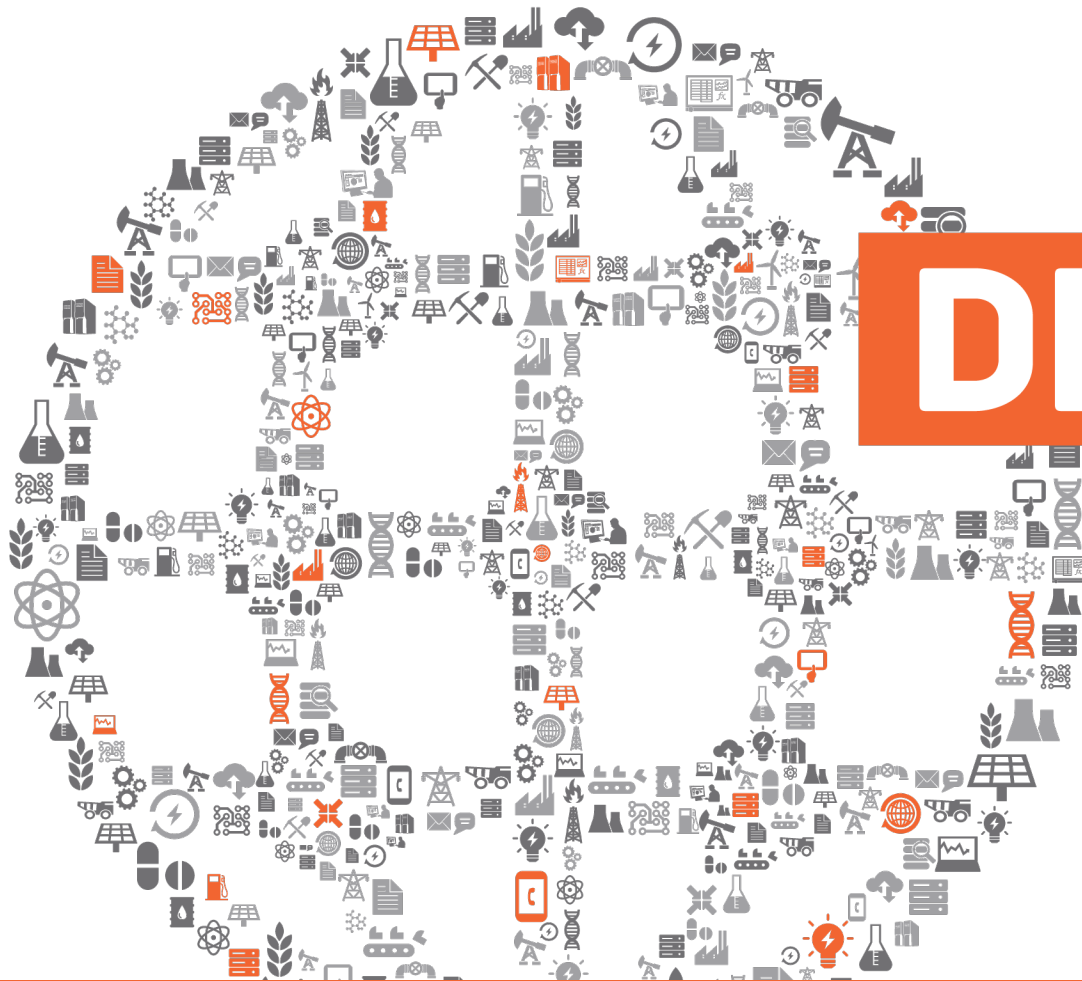


Important server metrics

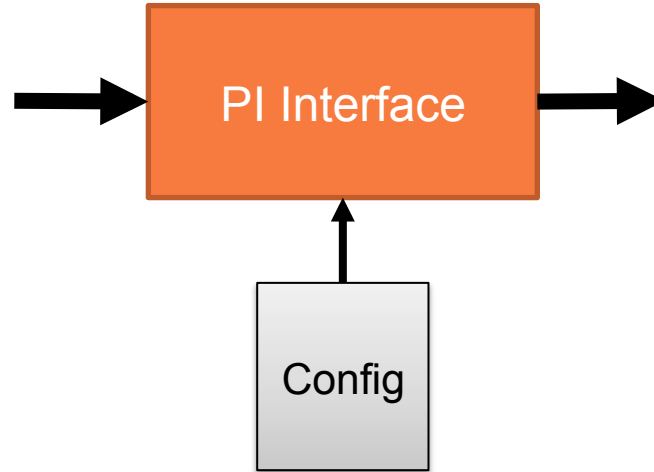
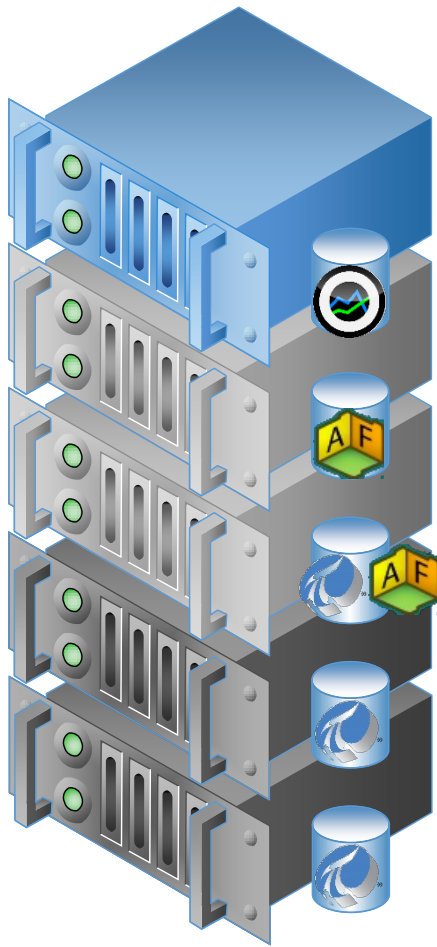
- Disk usage and space
- Memory usage
- Network bandwidth
- Processor usage
- Operating system



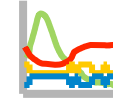
Windows Server 2012



DEMO



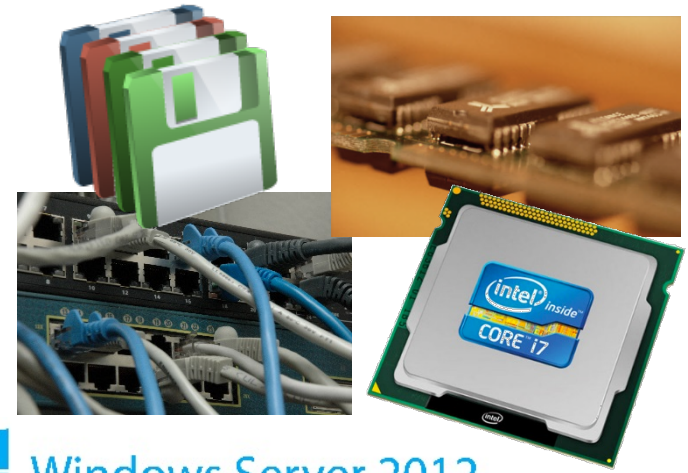
Tags



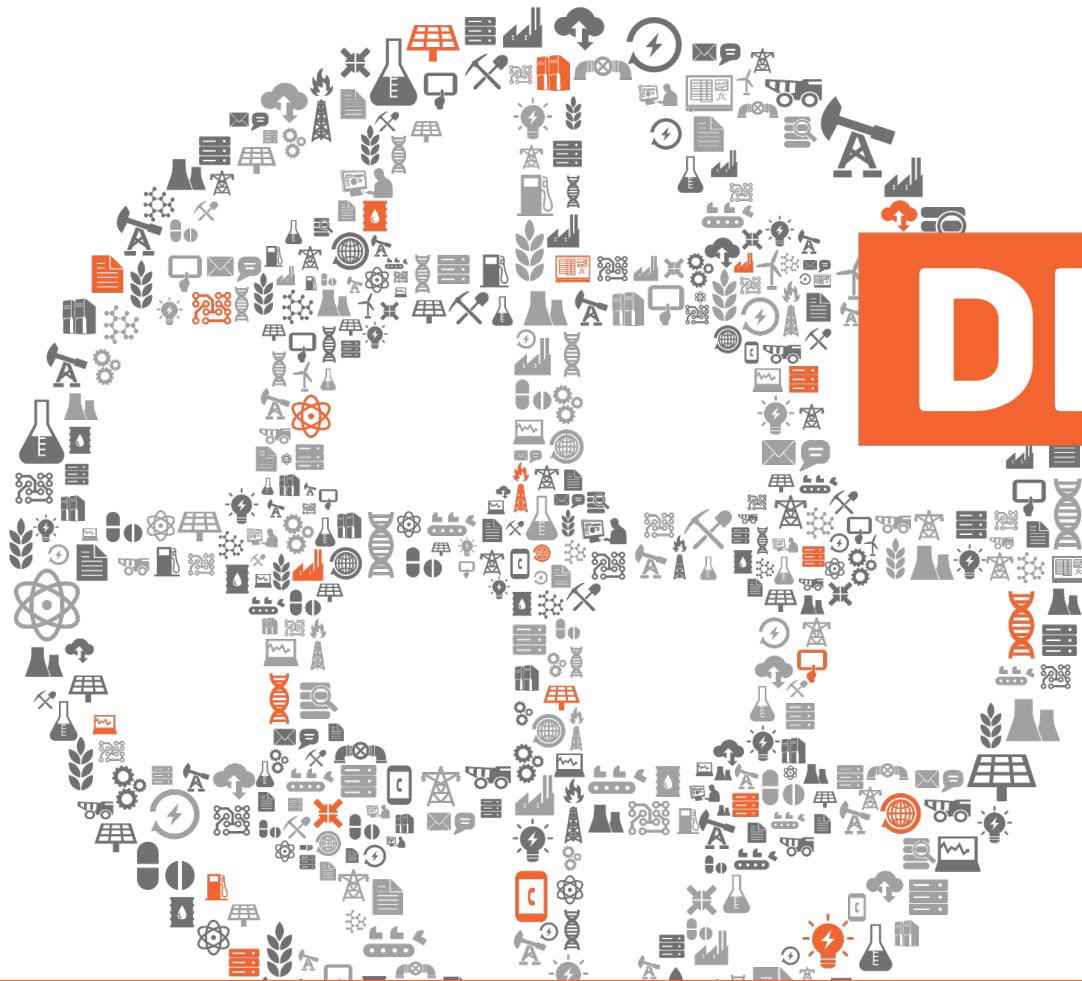
Data



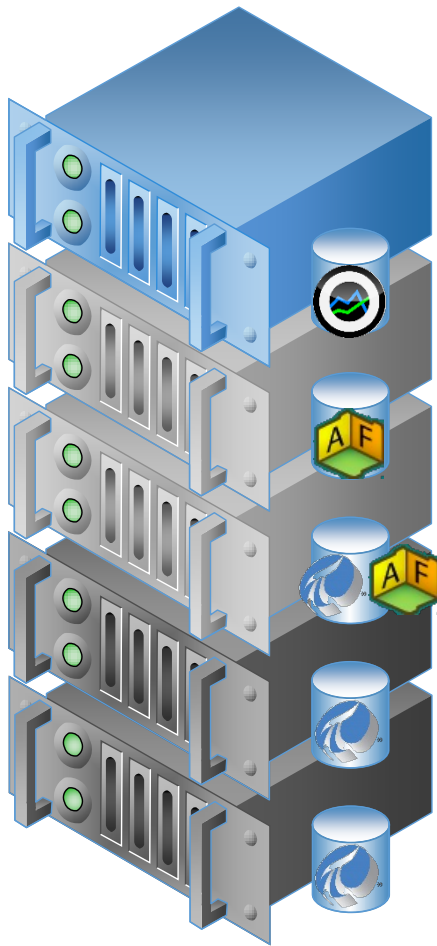
Assets



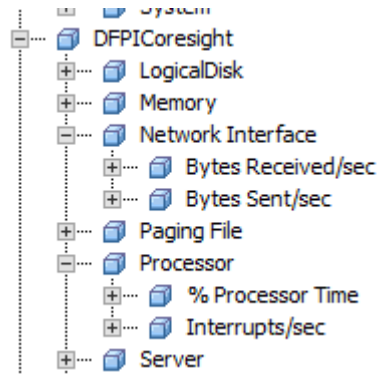
Windows Server 2012



DEMO



Auto created



 Tags

 Assets

 Data

Calculated

 Data

 Assets

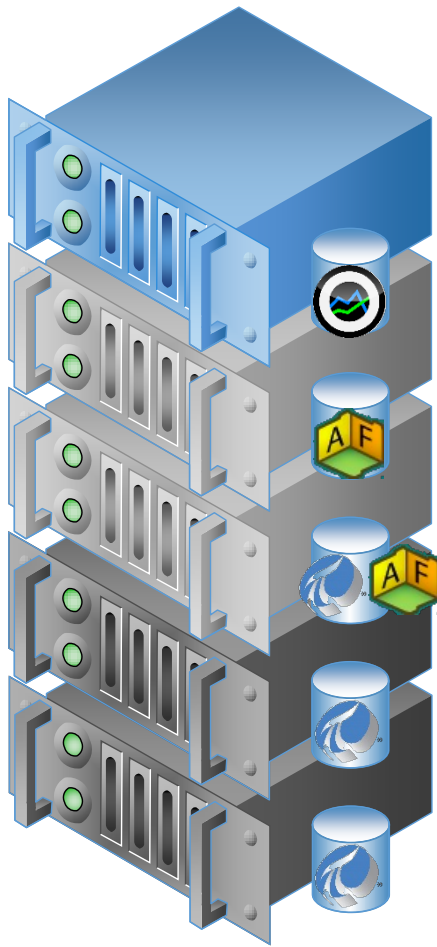
Marked

 Events

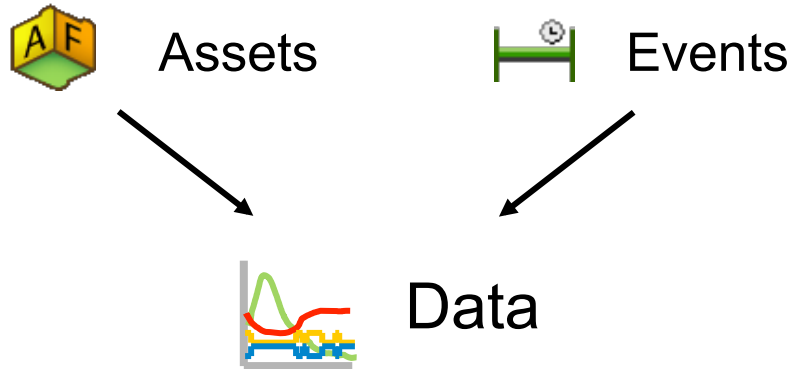
Reported on and Built

 Assets

 Data



Browsed, Found and Discovered



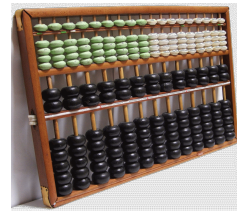
PI Interfaces



- Smart, Asset-based Interfaces
- Create tags, assets automatically
- Collect data at faster rates
- Coming late 2013

See a live demo at the Product Expo

Asset Based Analytics



**Easy as 3.14159265 – Next Generation
Calculation Engine**

9-9:30 am, Grand Ballroom B

Delivering Events across the PI System

Presented by Todd Brown and Chris Nelson

Thu 11:20 – 12:30 in Grand Ballroom B

PI AF: Asset Based Analytics – Event Detection

Start Trigger

Variable	Expression
Output	('Operating State'='Unloading') AND ('Tilt Dump Amps'>'Tilt Dump Amps High Limit')
	Add a new expression

End Trigger ☐ Same as start trigger

Variable	Expression
Output	('Tilt Dump Amps'<'Tilt Dump Amps High Limit')
	Add a new expression



Truck Trip Events Summary

Count	Cum. Duration	Avg Duration (Sec)	Expected Avg Duration (Sec)
29	22:24:00	2880	360

Truck Trip Events

Name	Start Time	End Time	Duration
RT: MT4 2013_04_07 12:44	4/7/2013 12:44:28 PM	4/7/2013 1:32:28 PM	00:48:00
RT: MT4 2013_04_07 13:32	4/7/2013 1:32:58 PM	4/7/2013 2:20:58 PM	00:48:00
RT: MT4 2013_04_07 14:21	4/7/2013 2:21:28 PM	4/7/2013 3:09:28 PM	00:48:00
RT: MT4 2013_04_07 15:09	4/7/2013 3:09:58 PM	4/7/2013 3:57:58 PM	00:48:00
RT: MT4 2013_04_07 15:58	4/7/2013 3:58:28 PM	4/7/2013 4:46:28 PM	00:48:00
RT: MT4 2013_04_07 16:46	4/7/2013 4:46:58 PM	4/7/2013 5:34:58 PM	00:48:00
RT: MT4 2013_04_07 17:35	4/7/2013 5:35:28 PM	4/7/2013 6:23:28 PM	00:48:00
RT: MT4 2013_04_07 18:23	4/7/2013 6:23:58 PM	4/7/2013 7:11:58 PM	00:48:00
RT: MT4 2013_04_07 19:12	4/7/2013 7:12:28 PM	4/7/2013 8:00:28 PM	00:48:00
RT: MT4 2013_04_07 20:00	4/7/2013 8:00:58 PM	4/7/2013 8:48:58 PM	00:48:00

Trip Operational State Events

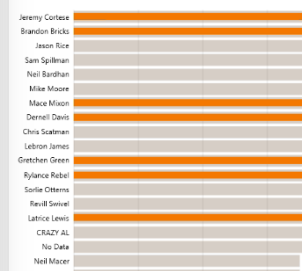
Name	Start Time	End Time	Duration
Running to Load	4/7/2013 3:09:58 PM	4/7/2013 3:19:58 PM	00:09:00
Loading	4/7/2013 3:19:58 PM	4/7/2013 3:29:58 PM	00:09:00
Running	4/7/2013 3:29:58 PM	4/7/2013 3:39:58 PM	00:09:00
Dumping	4/7/2013 3:39:58 PM	4/7/2013 3:49:58 PM	00:09:00
Running Empty	4/7/2013 3:49:58 PM	4/7/2013 3:57:58 PM	00:08:00

PI System Access +
PI WebParts

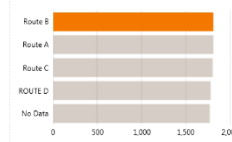
Engine RPM Analysis

sort by Average of Engine RPM - Maximum + desc

Average of Engine RPM - Maximum by Driver



Average of Engine RPM - Maximum by Route



Average of Engine RPM - Maximum by Truck



PI System Access +
Microsoft Power View

2	Select a RoundTrip
3	RT: MT4 RoundTrip 20130407 15:09:58
4	
5	
6	
7	ROUNDTRIP INFORMATION
8	Truck RoundTrip Name RT: MT4 RoundTrip 20130407 15:09:58
9	Truck Mine Truck 4
10	Start Time 07-Apr-13 15:09:58
11	End Time 07-Apr-13 15:57:58
12	Duration 00:48:00
13	Duration (min) 48.0
14	Route
15	Driver
16	Comment
17	Element Path V:\CARVIN\001 Mining\Corporation\Trucks\Mine Truck-4
18	ENGINE ECM
19	Engine RPM.Avg 1724.83
20	Engine RPM.Max 1724.83
21	Ground Speed.Avg
22	Ground Speed.Max
23	PAYLOAD SYSTEM
24	Load.Max
25	Load.Range
26	Tilt Dump Amps.Avg
27	Tilt Dump Amps.Max
28	BRAKE TEMPERATURE & TIRE PRESSURE
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	

PI DataLink retrieving
Event Info

PI AF 2012

- AF SDK – high performance access to PI time series data
- Support for time context for external tables
 - Aggregate external data with PI data
 - Calculations
 - KPIs



Steve Kwan

skwan@osisoft.com

Product Manager

OSIsoft, LLC

Chris Coen

ccoen@osisoft.com

Product Manager

OSIsoft, LLC

Get hands on knowledge of how to use and get value from the PI System



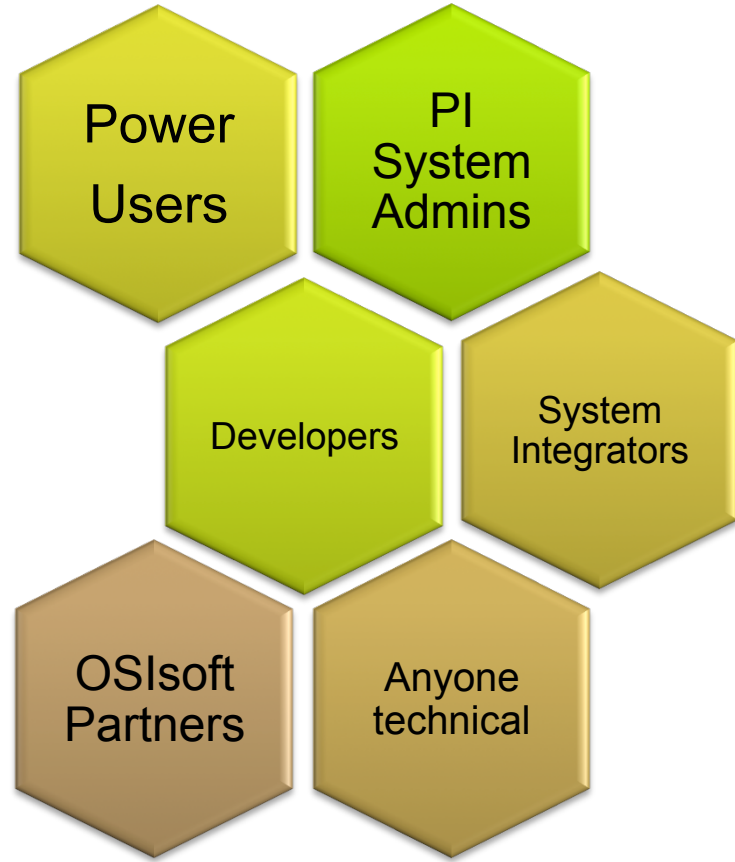
DECEMBER 3 - 6, GRAND HYATT SAN FRANCISCO

vCampus Live! 2013

WHERE PI GEEKS MEET



SAVE THE DATE





THANK

YOU

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