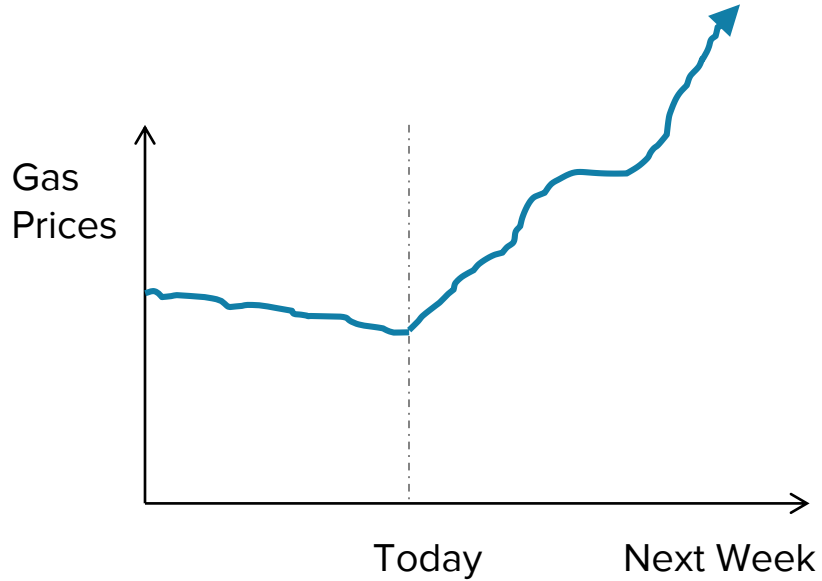




PI Server 2015: Deploying and Using Future Data for Operational Insights

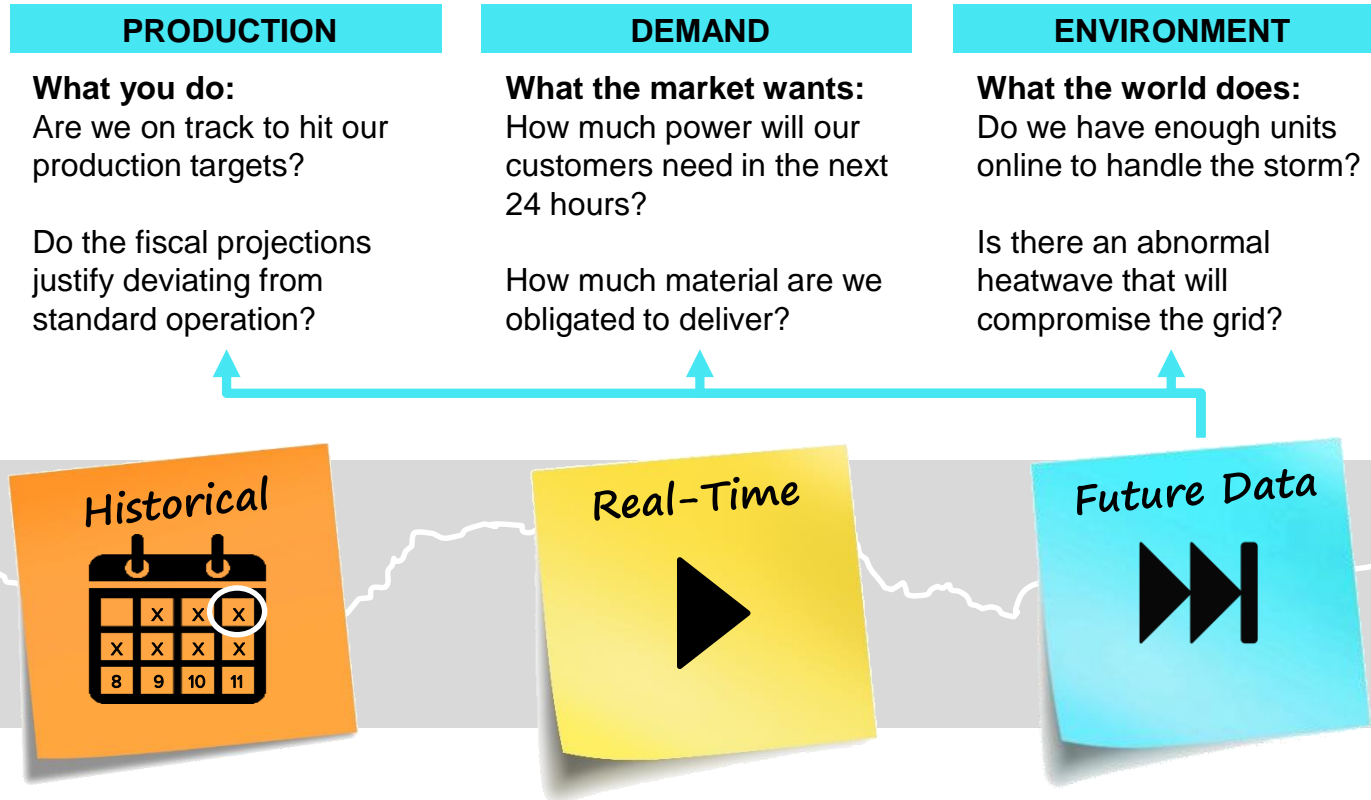
Presented by **Clark Ennis, Systems Engineer**
cennis@osisoft.com

What would you do if you saw this?



How about now?

Power of Future Data: What could you do if you knew?



Integrate forecasts natively into the PI System

PI Server 2015

The screenshot shows the California ISO website. At the top is the California ISO logo and a navigation bar with links: ABOUT US, PARTICIPATE, STAY INFORMED, PLANNING, MARKET & OPERATIONS, and RULERS. Below the navigation bar is a large banner image of the San Francisco skyline at night. To the left of the banner are three buttons: 'Joining us' (blue), 'Going green' (green), and 'Looking ahead' (orange). To the right of the banner is a section titled 'Today's Outlook' for Mon Jun 1 08:54:06 2015, showing 'Current Demand: 26,827 MW' and 'Forecast Peak: 29,796 MW'. Below this is a 'Calendar' section with tabs for 'Calendar', 'News Releases', and 'Recent Documents'. The calendar shows events for Monday, Tuesday, and Wednesday. At the bottom are sections for 'QUICK LINKS', 'STAY INFORMED', 'RELATED WEBSITES', and 'STAY CONNECTED'.

Today's Outlook Mon Jun 1 08:54:06 2015

Current Demand:

26,827 MW

Forecast Peak:

29,796 MW

[Click for more](#)

Supply and Demand

Graph displays current system demand plotted against forecast demand and available resources. See tutorial for more information on this graph.

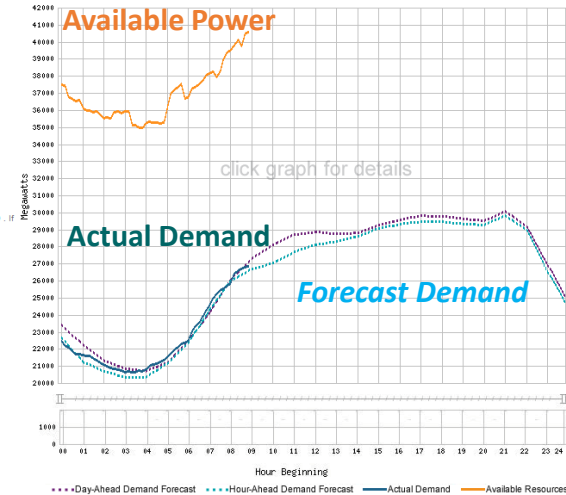
Current System Demand:
(Actual Demand at this point in time)
26827 MW

Today's Peak Demand:
(Highest point thus far today)
26827 MW

Today's Forecast Peak Demand:
(Highest point expected today. Does not appear post-peak.)
29796 MW

Tomorrow's Forecast Peak Demand:
(Not included on graph)
29683 MW

Information is current as of 01-Jun-2015 08:50.
browser does not support auto refresh, select reload.

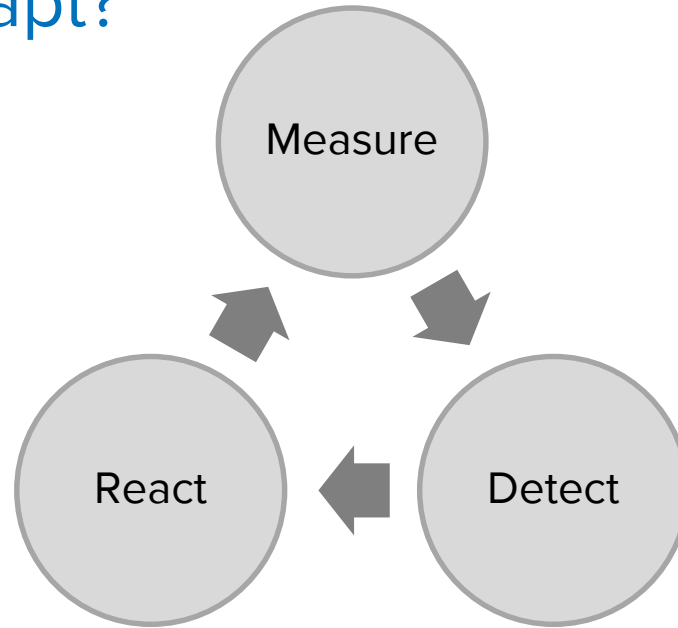




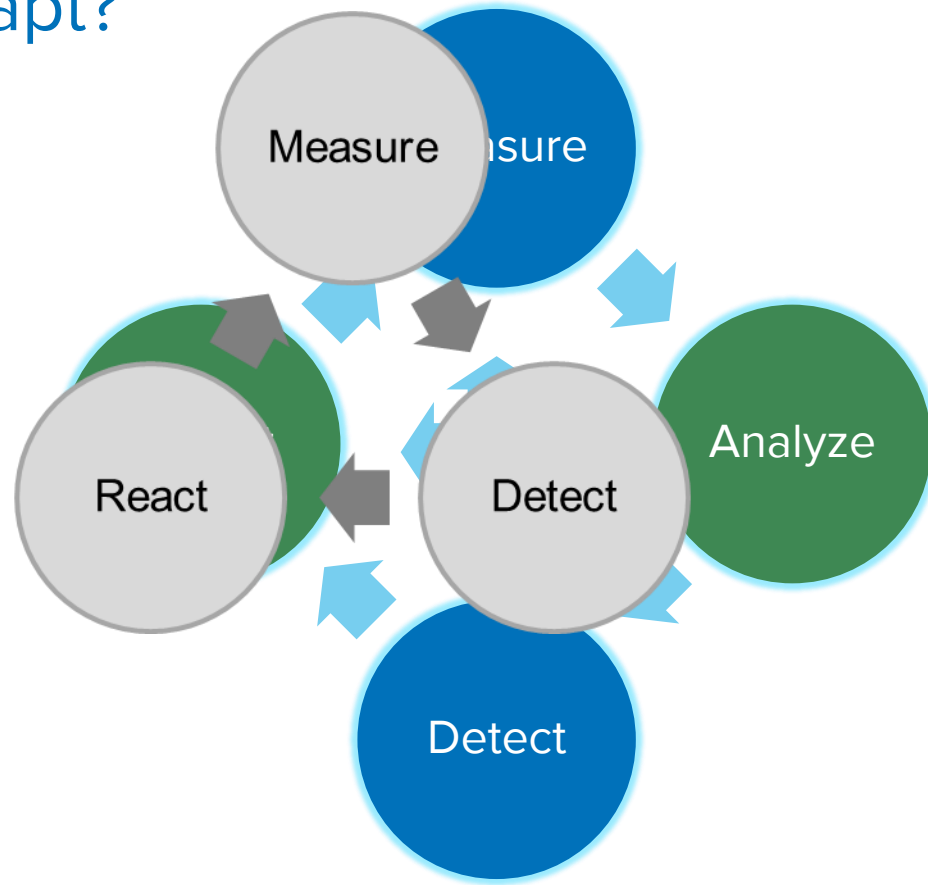
Jeff Parker
Southwest Power Pool



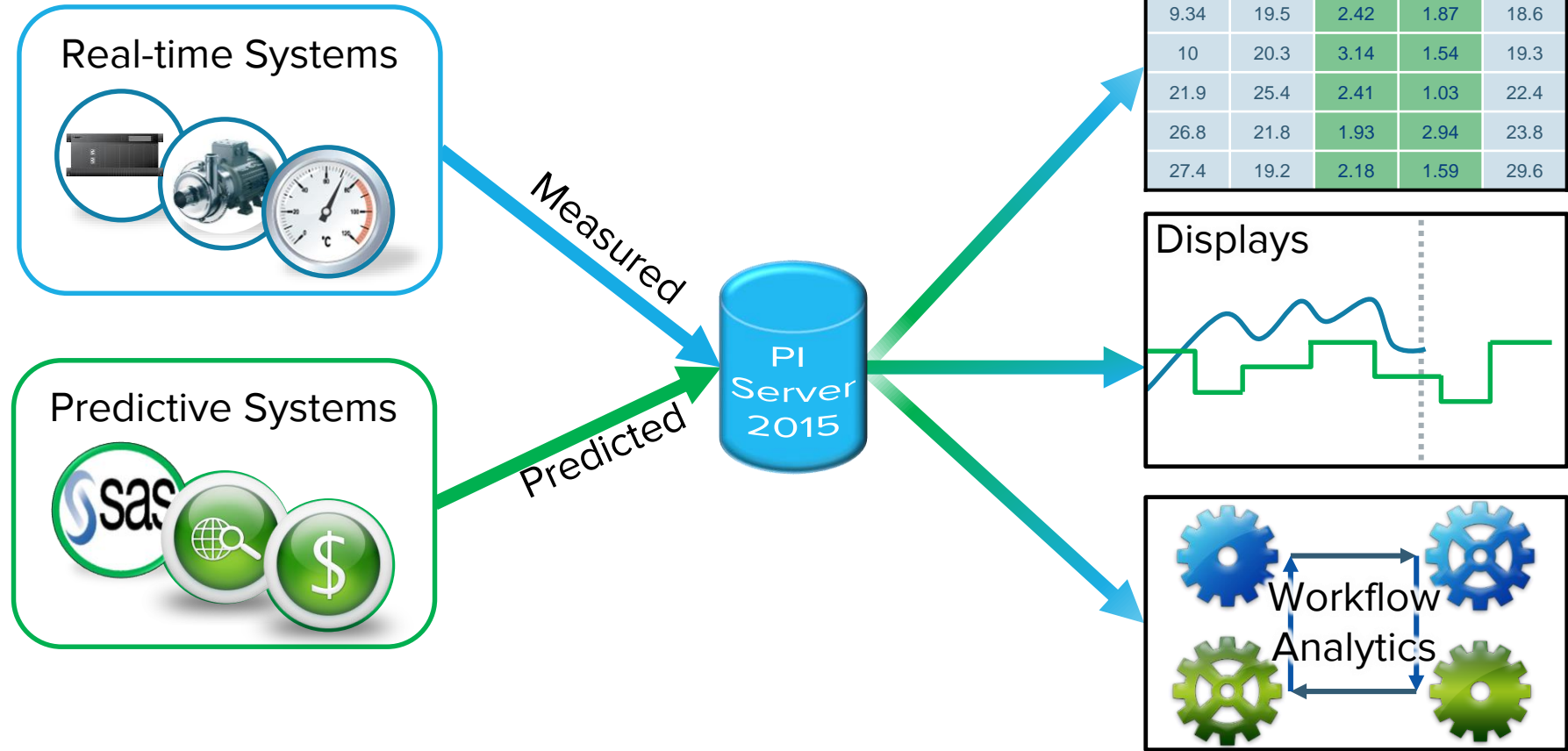
How Do You Adapt?



How Do You Adapt?



Enable a unified infrastructure with PI Server 2015

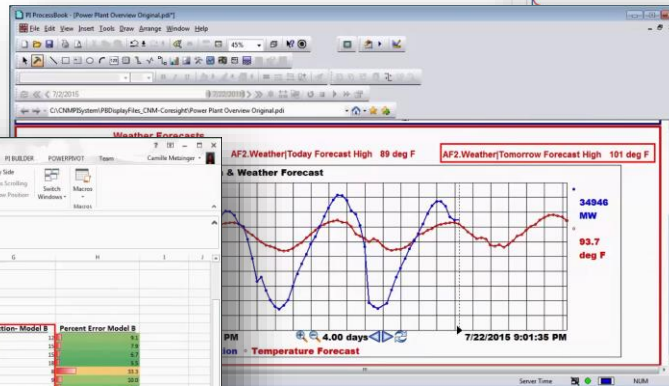
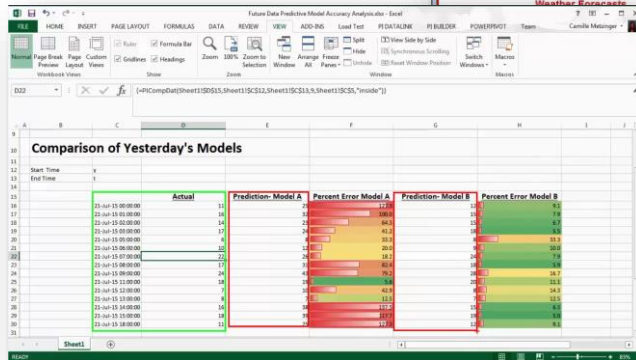


Visualize historical, real-time, and predictive data system wide

PI Coresight 2015

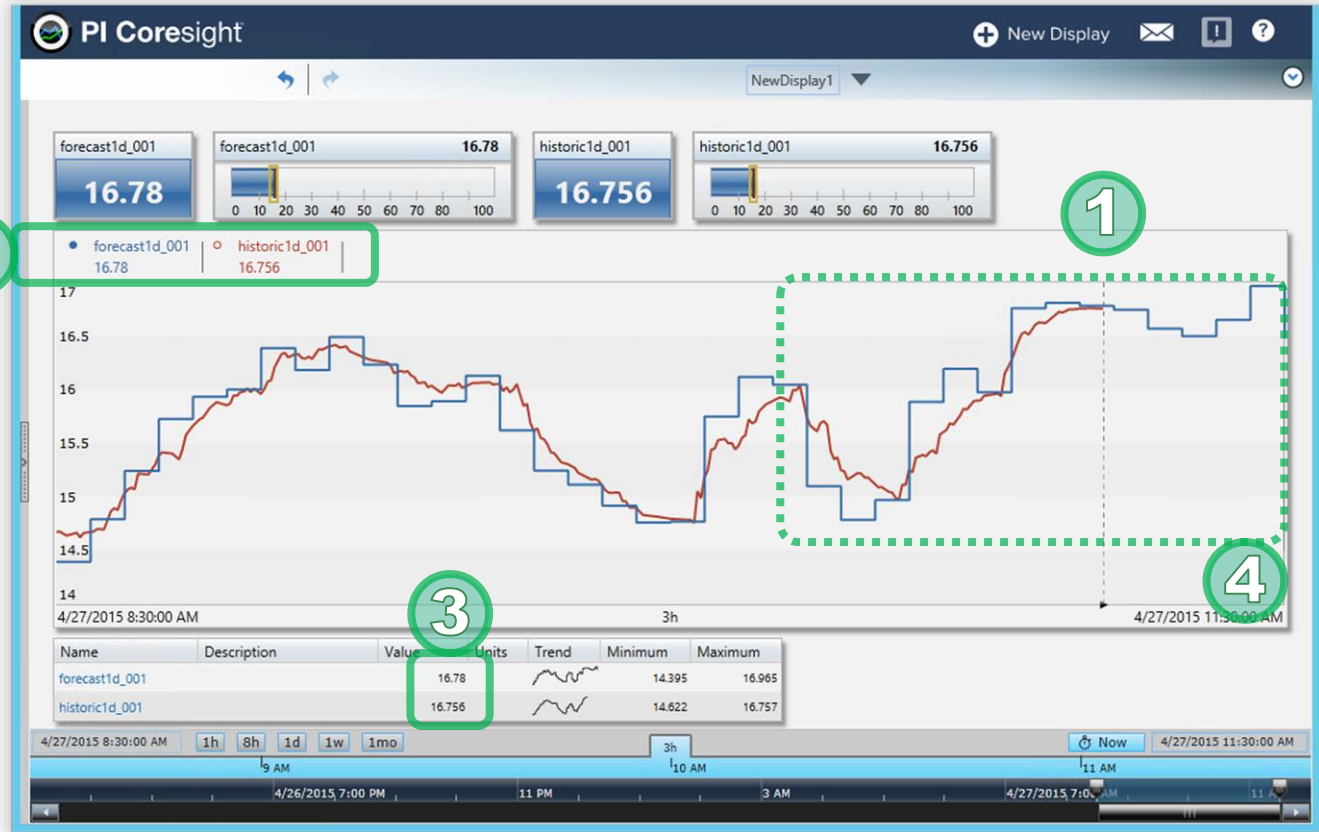
PI ProcessBook 2015

PI DataLink 2015





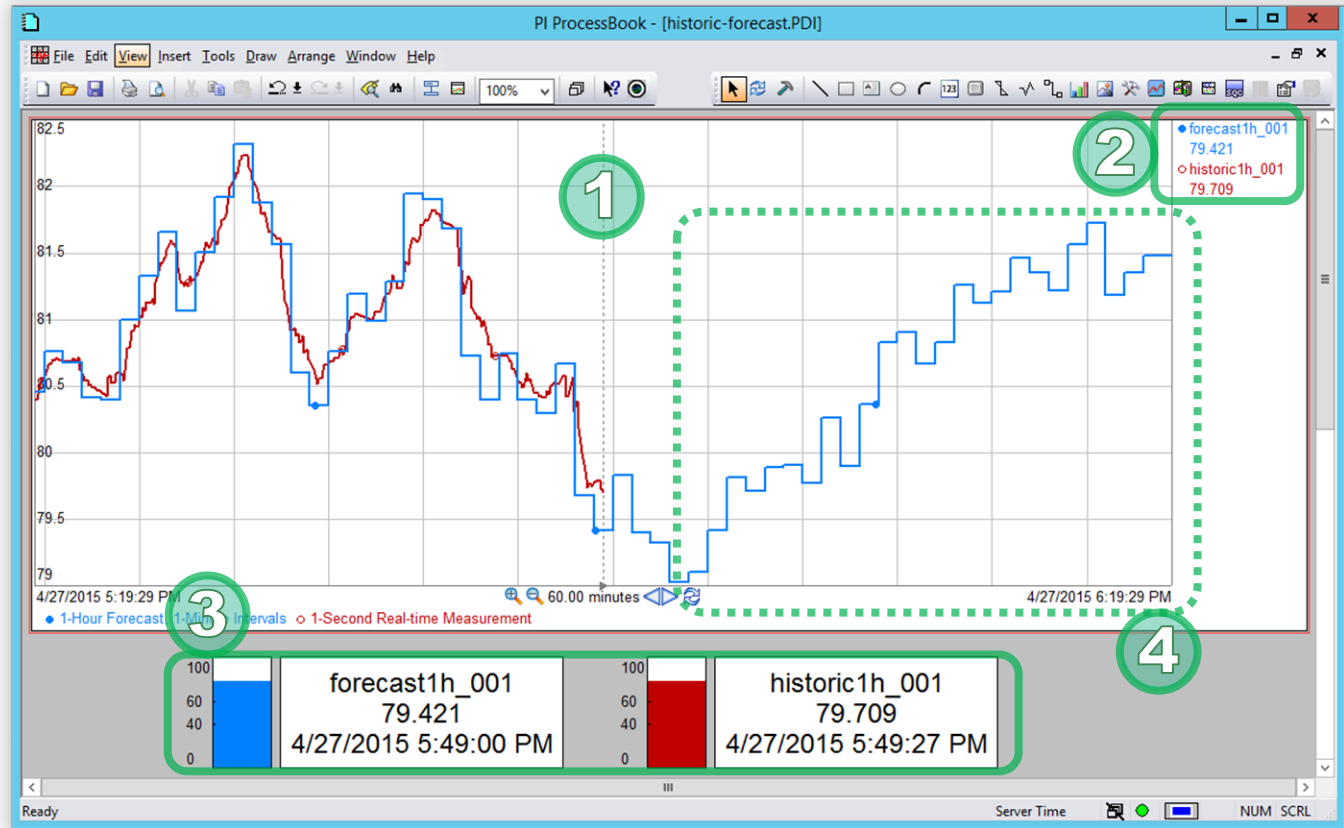
PI Coresight 2015



1. Now Line
2. Legend Values
3. Symbol Values
4. Live Forecast Updates

PI ProcessBook 2015

1. Now Line
2. Legend Values
3. Symbol Values
4. Live Forecast Updates



PI DataLink 2013+

(with AF Client 2015)

historic-forecast.xlsx - Excel

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW DEVELOPER PI DATALINK PI BUILDER Sign in

Current Value Archive Value Single Value Compressed Data Sampled Data Timed Data Calculated Data Time Filtered Calculation Explore Compare Events Search Asset Filter Properties Update Settings About Help Resources

A1

	A	B	C	D	E
1		historic1h_001	forecast1h_001	delta	
2	26-Apr-15 00:00:00	56.98488235	56.9548378	0.030044556	
3	26-Apr-15 01:00:00	55.08245087	54.34315109	0.739299774	
4	26-Apr-15 02:00:00	54.15202713	53.97742844	0.174598694	
5	26-Apr-15 03:00:00	54.4095192	54.29426956	0.115249634	
6	26-Apr-15 04:00:00	52.48399353	52.25976563	0.224227905	
7	26-Apr-15 05:00:00	56.79501343	56.62767029	0.16734314	
8	26-Apr-15 06:00:00	57.91703033	57.65364456	0.263385773	
9	26-Apr-15 07:00:00	56.29156876	56.13518524	0.156383514	
10	26-Apr-15 08:00:00	52.70926285	52.4973793	0.211883545	
11	26-Apr-15 09:00:00	55.51454544	55.27646637	0.238079071	
12	26-Apr-15 10:00:00	52.72750854	52.77568436	-0.048175812	
13	26-Apr-15 11:00:00	51.06985092	51.23626328	-0.166412354	
14	26-Apr-15 12:00:00	52.99094391	52.84811401	0.142829895	

Timed Data

☒ Data item
☐ Expression

Root path (optional)

Data item(s)
Yesterday'ISC\$1

Time stamp(s)
Yesterday'ISA\$2:\$A\$26

Retrieval mode
interpolated

Output cell
Yesterday'ISC\$2

OK Apply

Collecting Future Data

**PI UFL
Interface**

From schema or
column-based text files

**PI HTML
Interface**

For simple/lightweight
web data scraping

**PI RDBMS
Interface**

Via SQL queries against
relational databases

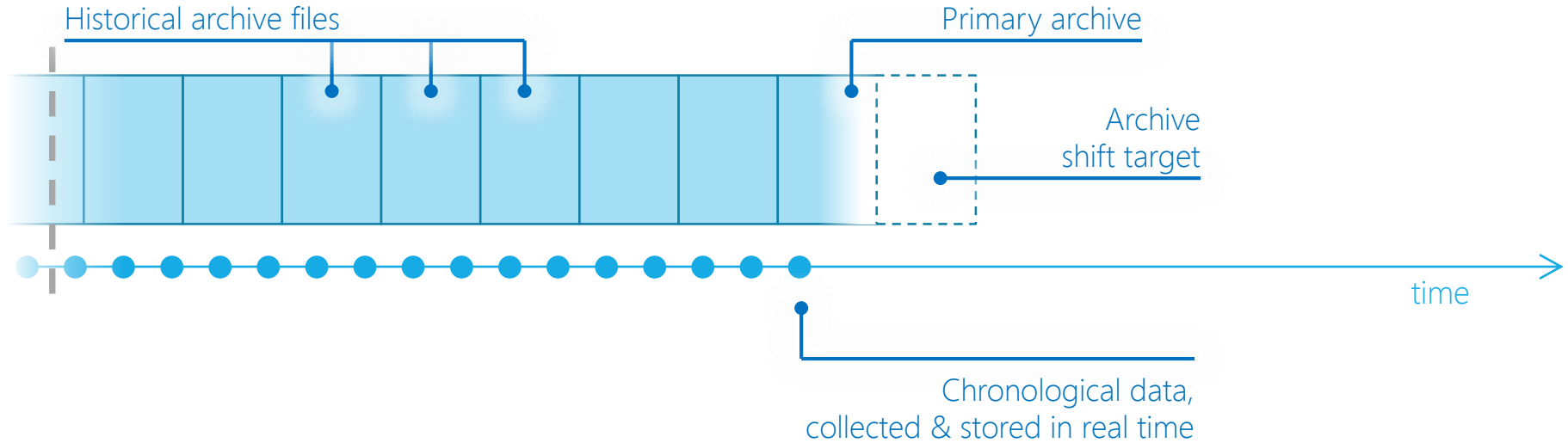
**PI-to-PI
Interface**

From PI System to
PI System

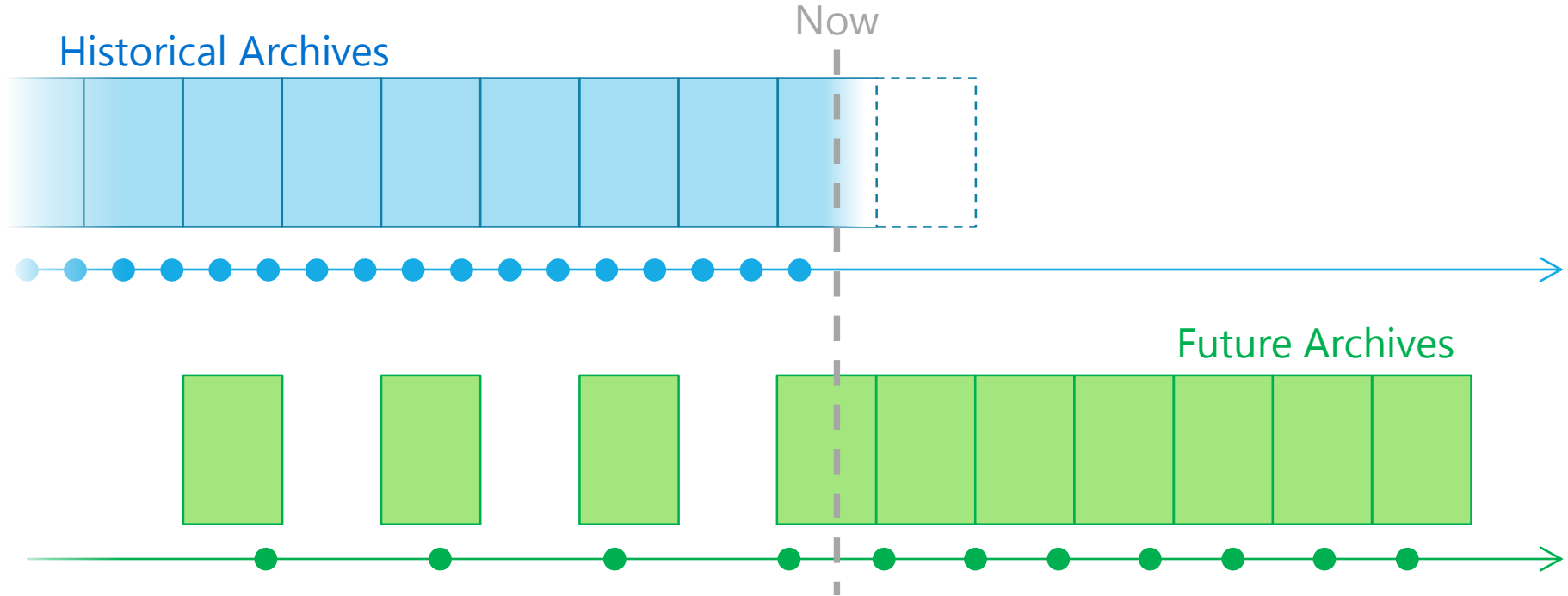
**PI WebAPI,
PowerShell,
AF SDK, ...**

Custom application with
specific logic

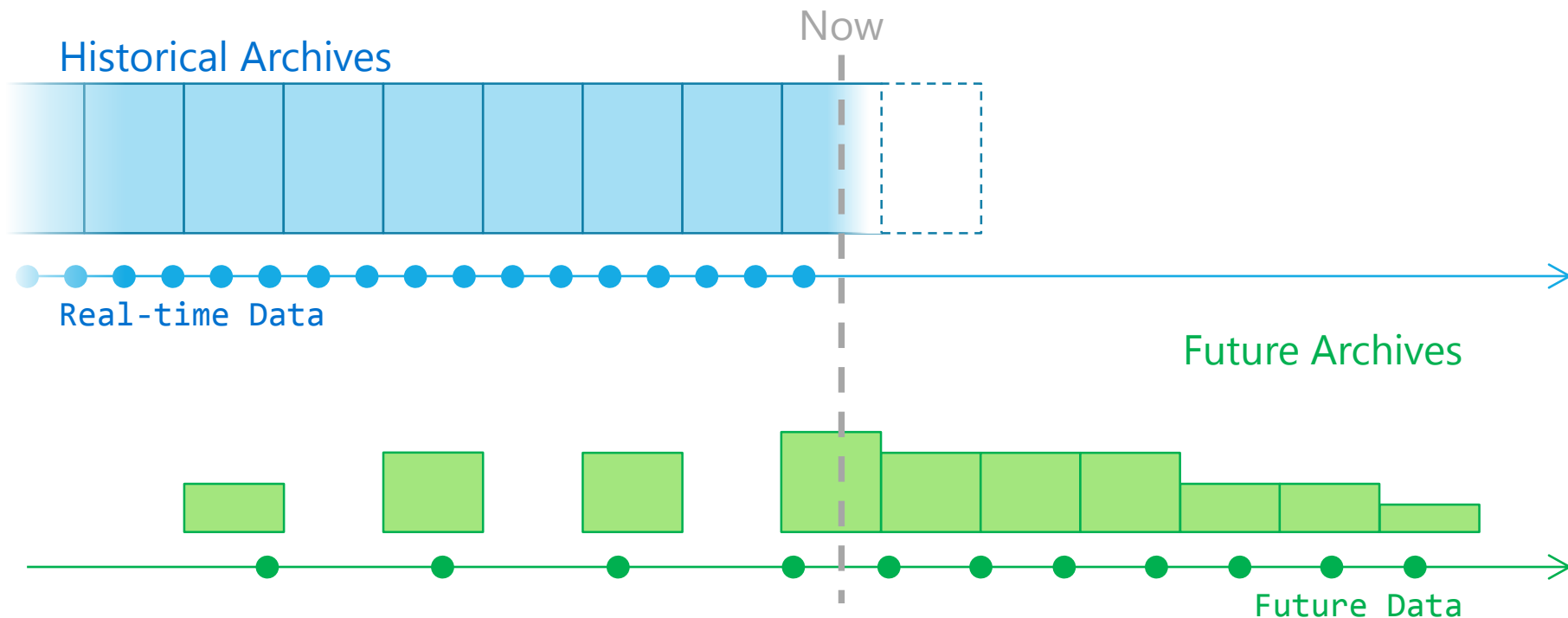
Storing Real-time Data...



Storing Real-time Data... versus “Future” Data



Optimized Storage for Different Data Streams



Benefits of PI Server 2015 for Predictive Data

Flexible Data Architecture



Distinct storage for historical and predictive data gives you options for your retention policies.

Timely Updates



Get accurate, timely, scalable updates for your predictive data.

Easy Administration



Automatic file management & point settings means zero configuration and easy monitoring.

Compatibility



Deploy confidently thanks to low adoption cost and compatibility with existing systems and work-arounds.

Contact Information

Clark Ennis

cennis@osisoft.com

Systems Engineer

OSIsoft

Questions

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



State your
name & company

Please remember to...

Complete the Survey
for this session



The **Power of Data**
DECISION READY IN REAL-TIME

Evaluation Form (Seminar Location - Date)

Name: _____	Company: _____			
Email: _____				
Quality and content of the presentations	Poor	Good	Excellent	N/A
Welcome	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Journey To Real-Time Operational Intelligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Power of Connection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank Level Management System	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using the PI System to Aid in Troubleshooting Operational Aspects of Oil and Gas Well Drilling and Completion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unleash your Infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information on the Spot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wrap-up/Seminar Conclusion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality and organization of the seminar				
Choice of date	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time allowed for lunch/breaks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Choice of presentations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Days and time allowed for the presentation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





감사합니다

谢谢

Danke

Merci

Gracias

Thank You

ありがとう

Спасибо

Obrigado

