

# Advanced Analytics with Seeq and the PI System

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# Agenda

- Seeq Intro
- Seeq and OSIsoft
- Use Case 1: Well Completion Analysis
- Demo 1
- Use Case 2: Golden Profile for Batches
- Demo 2



# Seeq

- Founded May 2013
- Funding:
  - Altira Group
  - Chevron Technology Ventures
  - Next47
  - Siemens
  - And various angels
- Over 50 employees
- Companies in Every OSIsoft Vertical











## Advanced Analytics for more value from OSIsoft PI

















Advanced analytics: application of big data, machine learning, and other innovations to derive insights and improve outcomes





Enterprise

Infrastructure







NEW SENSOR TECHNOLOGY



REMOTE AND MOBILE ASSETS



# **5220**°

#### **Application**

Subject Matter Experts (SME) Teams and colleagues Managers

#### Value from PI Data

Rapid install on PI Keep PI as system of record Extensive integration



#### **Impact**

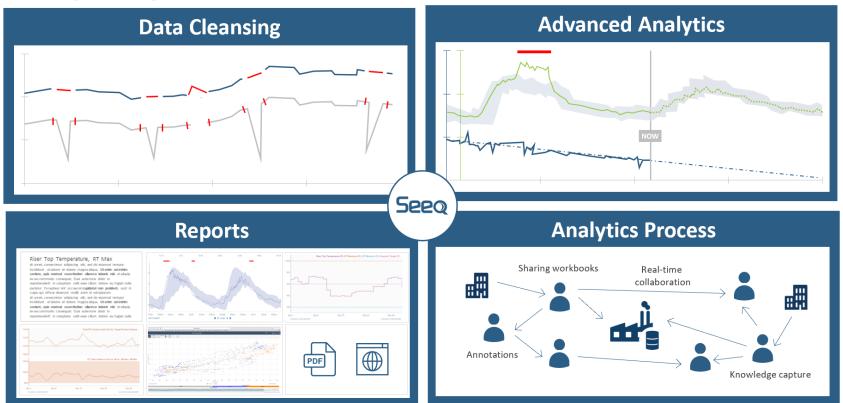
Faster insights Knowledge capture Dynamic reports

#### **Advanced Analytics**

Big data Machine learning Cloud or <u>on-premise</u>

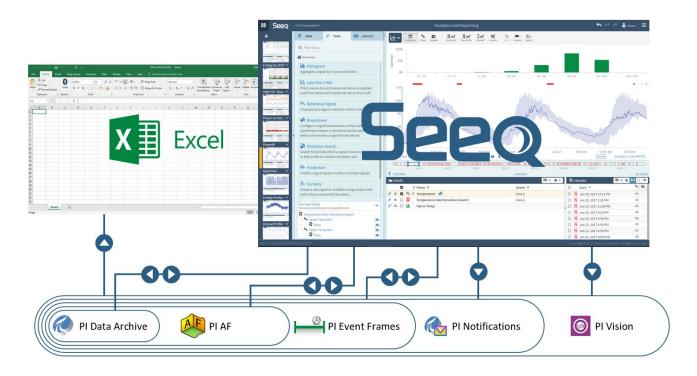


# Seeq Capabilities





# OSIsoft and Seeq Integration





# Advanced Analytics Examples













**UC 2017** 

UC 2018

**ARC 2018** 

**UC 2018** 

**ARC 2016** 

**T&D 2016** 

#### Investigate

#### **CIP Analytics**

Determine CIP requirements and then monitor for adherence to plan

**Benefit: Increase Uptime** 

#### Recover revenue

Find value of curtailments across 6,000 windmills over last year

Benefit: Increase Revenue

#### **Optimize**

#### Truck haul planning

Calculate optimized plan for oil pick up across oil pumps and track volume

**Benefit: Improve Efficiency** 

#### **Crystallization stage**

Identify time of state transition in batch process to improve yield

**Benefit: Increase Yields** 

#### **Predict**

#### **Sewage Overflow**

Detect sewage pump issues 12 hours in advance of overflow

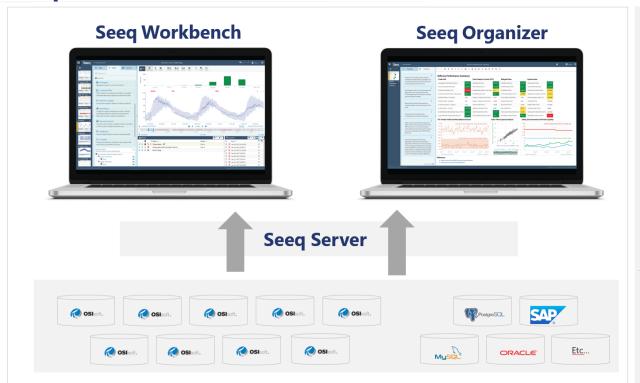
Benefit: Prevent Contamination Price Elasticity in Grid

Create model to define expected power use based on price

Benefit: Improve Resource Planning



# Seeg Architecture





Cloud or On-Premise

1 or many sources
Time series AND context

Data not moved/copied



# PI Vision and Seeq

### What is PI(Vision?)

The fastest, easiest way to visualize PI System data

Access data from any web browser, including mobile device browsers

Collaborate and share comments across the company

Deploy and roll-out rapidly

## What is (Seeq?)

#### (Advanced analytics\*)

for PI System data

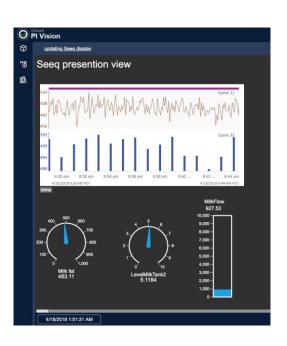
Data wrangling\*\* and investigations for SMEs: past, present and predictive

Capture analytics processes and collaborate with colleagues

Faster value from data

# PI Vision Integration with Seeq







# Collaboration...







Seeq Gold Sponsor of PI World Sponsor of OSIsoft T&D UG Seeq OCS Support/Demonstration



# Seeq Benefits for OSIsoft

#### Better together!

High performance PI System and Seeq advanced analytics for insight

#### Increase OSIsoft PI tie-in and tags

Write back to PI, publish to PI Vision, high value in PI Notifications

Reinforce the value of OSIsoft PI System: leave the data PI System as system of record, always

Shared path to the cloud

Seeq with PI servers on Azure, or OCS







## Questions?

Please wait for the **microphone** 

State your name & company

# Please rate this session in the mobile app!





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