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Turning **insight** into **action**.



Asset Based Visualization With PI WebParts

Presented by **Michael Wood**, Product Manager, OSIsoft

Goals

- Review latest PI WebParts with extended support for an asset centric PI System
- Review how industry solutions can leverage asset based visualization

Asset Based Visualization

Role of Assets

Got Assets?

- Assets allow you to abstract out the physical data layer from the information space.
- PI System 2010 with PI AF provide a methodology for giving structure and context to your data
- A properly constructed asset model helps to locate, identify, and leverage the value of, data as it is transformed into information.

But What Does That Really Mean?

- I want to be able to look at all the information associated with my supply tank.
-and if I have 12 of those tanks, I want a consistent way to look at any one of them
- Tables of data are fine, but I really need.. is to understand what I am looking at*fast*.

Asset Based Visualization

Support For Asset Definition

Elements

- Elements
 - Extended AF Support
 - Process Tanks
 - TransDistribCo

Process Tanks

General Child Elements Attributes Ports Version

Filter

Name Value

Elements

Event Frames

Library

Unit of Measure

Group by: ☐ Category

Name:

Description:

Configuration Item: ☐

Categories:

Default UOM:

Value Type:

Value:

Data Reference:

Settings

Asset Based Visualization

Types of Asset Visualization

TransDistribCo > Tank Farm

PI Demo Site

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Tank Farm

Process Tanks

- TK101
- TK202
- TK601**

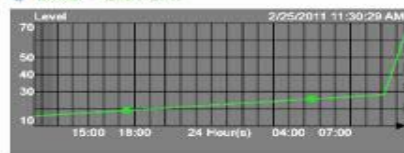
Equipment Header

Dataset	Value
ISA_TAG	TK601
LOCATION	NORTH
SERIAL_NUMBER	930002
CONSTRUCTION	SS#4
CAPACITY	871
MAX_TEMP	325
VENDOR	Valley Mills

PM Report

Dataset	Value
LAST_CERT	2010-12-13
CERT_BY	Tony Wilson
NEXT_PM	2011-03-13

Level - Last 24h



Level



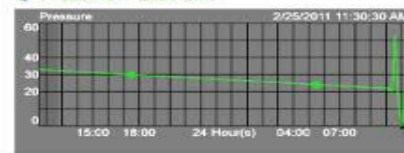
Temp - Last 24h



Temperature



Pressure - Last 24h



Pressure



Production Tasks

<input type="checkbox"/> @ Type	Title	Assigned To	Status	Priority	Due Date	% Complete	Predecessors
<input type="checkbox"/>	Maint Records Review REV		In Progress	(2) Normal			
<input type="checkbox"/>	Section Fire Drill REV		Deferred	(1) High			

[Add new item](#)



Administrator



Computer



SCHEMA



Recycle Bin



Wolverine



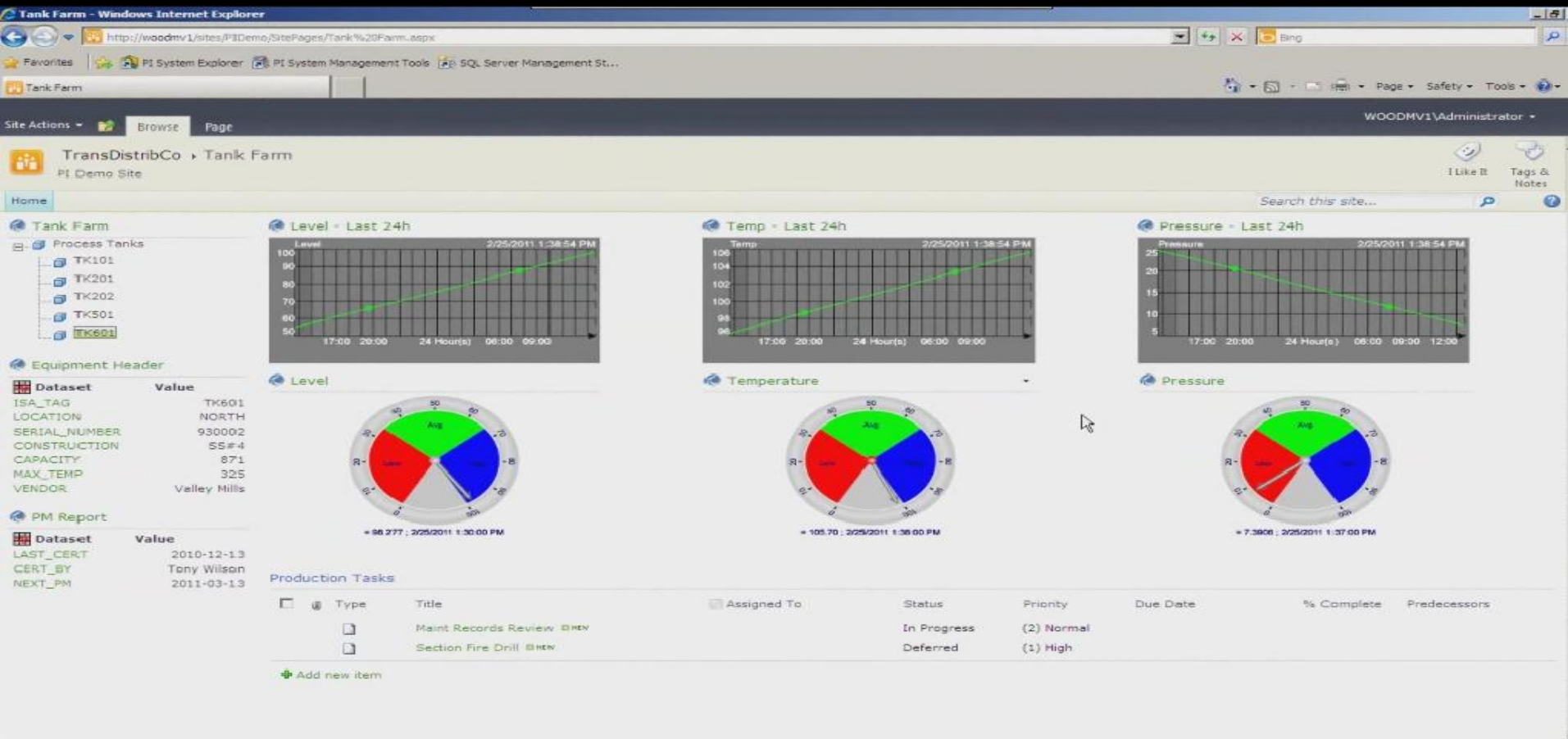
Bighorn Basin



Gypsy Junction



Victory Valley



Asset Based Visualization

Integrated Composite Solutions

Microsoft Upstream Reference Architecture

Demonstrating Declarative Integration for
Composite Solutions

Demonstration Developed by...



Microsoft®



Microsoft Upstream Reference Architecture - MURA Declarative Integration

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Orchestra Search

teled

Search

Well Exceptions

tag	value
24-SX-14_490251075900_Oil	362.69
84-SX-15_490251111600_Oil	366.31
84-SX-15_490251064000_Oil	368.79

Search Criteria

Search Criteria

Well

API Number

Operator

Well Name

Well Number

Well Status

State

County

Search Criteria Summary

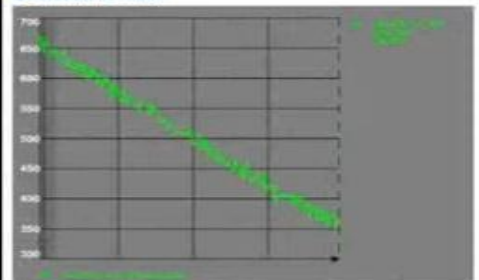


Orchestra Search Results

Title	Lease Name	API Number	Operator	Well Name	Well Number	Well Status	Sta

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OSIsoft PI Trend



OSIsoft PI Gauge-Oil



24-SX-14_490251075900_Oil = 362.69 BOPD, 1/15/2011 3:57:51 PM

OSIsoft PI Gauge-Water



24-SX-14_490251075900_Water = 72.425 BOPD, 1/15/2011 3:57:55 PM

OSIsoft PI Gauge-Temperature



24-SX-14_490251075900_Temperature = 60.696 DEGP, 1/15/2011 3:57:55 PM



Microsoft Upstream Reference Architecture - MURA Declarative Integration

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Orchestra Search

Well Exceptions

Tag	value
24-SX-14_490251075900_Oil	362.69
24-SX-15_490251111600_Oil	286.31
24-SX-15_4902511064000_Oil	369.79

Search Criteria

Search Criteria

Well

API Number

Operator

Well Name

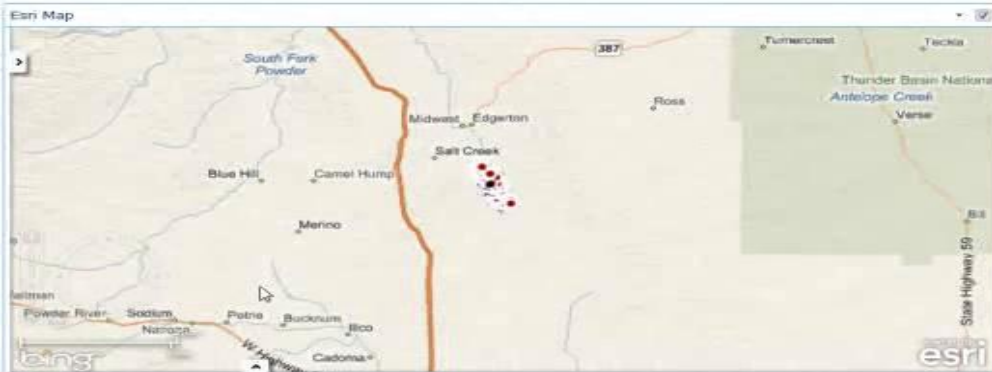
Well Number

Well Status

State

County

Search Criteria Summary



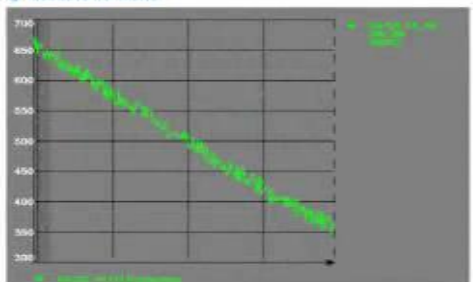
Orchestra Search Results

Search Results

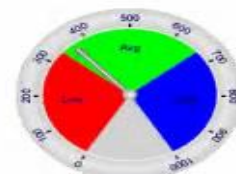
Title	Lease Name	API Number	Operator	Well Name	Well Number	Well Status	Sta

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OSsoft PI Trend



OSsoft PI Gauge-Oil



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OSsoft PI Gauge-Water



24-SX-14_490251075900_Water = 72.42 BOPD; 1/15/2011 3:57:55 PM

OSsoft PI Gauge-Temperature



24-SX-14_490251075900_Temperature = 60.656 DEGF; 1/15/2011 3:57:55 PM

Asset Based Visualization

Summary

Assets Based Visualization

- Equipment organization
- Visualization that is comprehensive, structured, and intuitive



Thank you

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