PI Connector for CygNet

Presented by **John Miller**   **CSE** ICON

John.Miller@cse-icon.com

CYGNET

Weatherford

Background

CygNet is a powerful enterprise class SCADA system which collects operations data, including numerous types of attributes for each data point.

Many companies would like to bring their CygNet data into their PI Systems and PI AF for enhanced storage, archiving, analysis, and reporting.

CSE Icon is the largest CygNet SCADA Integrator in the US.

CSE Icon has been integral with OSIsoft to create the smart connector from CygNet to the PI System.

CSE Icon worked together with OSIsoft to create requirements and beta test the PI Connector for CygNet on our CygNet and PI System development servers

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Why the Need for a PI Connector for CygNet?

Existing Interface Choice

- Only offers collection of current point value

- Previous OPC methods were problematic

- Has issues with scalability and performance

- All PI System points must be manually created

- Meta data must then be manually exported

- Both these processes are incredibly time consuming in terms of both schedule and budget

- Inability to perform advanced analytics, visualization, and reporting on Cygnet Data

Simplifying Integration and Data Structures

PI Connector for CygNet

CygNet Meta Data

Filter by Facility ID and UDC

Automatic PI Point Creation
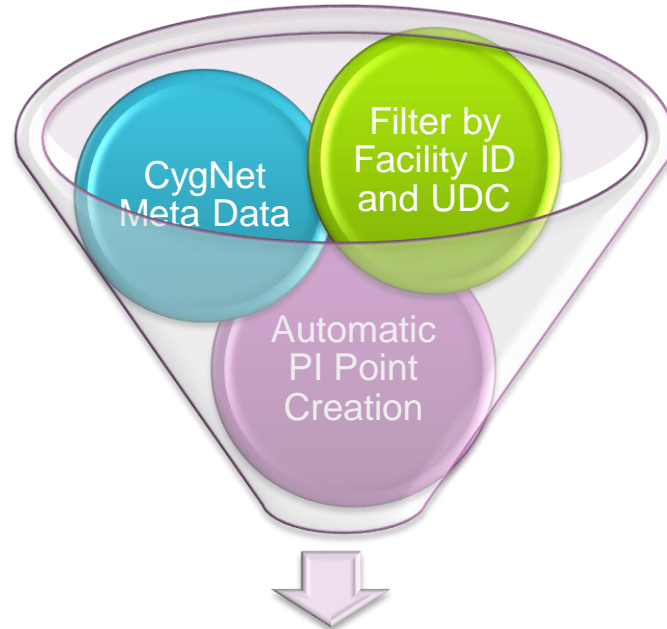
Automatic PI AF Structure Creation and Synchronization

CygNet Connector Advantages

- Collects Point State (High Alarm, Unreliable, etc.)
- Collects Base Status (If customer wants to export tag status)
- Collects CygNet Facility Attributes (Meter Descriptions, Routes, Field, etc.)
- Collects CygNet Point Attributes (Data Descriptions, Alarm Settings, etc.)

- Filtering CygNet points by Facility ID and UDC
- Automatic PI Point Creation
- Automatic PI AF structure Creation

- Can run from CygNet server, PI Server, or independent server
- Data travels over a static port and communication is firewall friendly

- Opens up the CygNet SCADA to the "Power of the PI System" and PI AF for enhanced analytics, visualization, and reporting

CygNet Data Structure = PI AF Structure

Leveraging PI AF Asset Based Analytics & Aggregation to Provide Flexible Analytics & Visualization
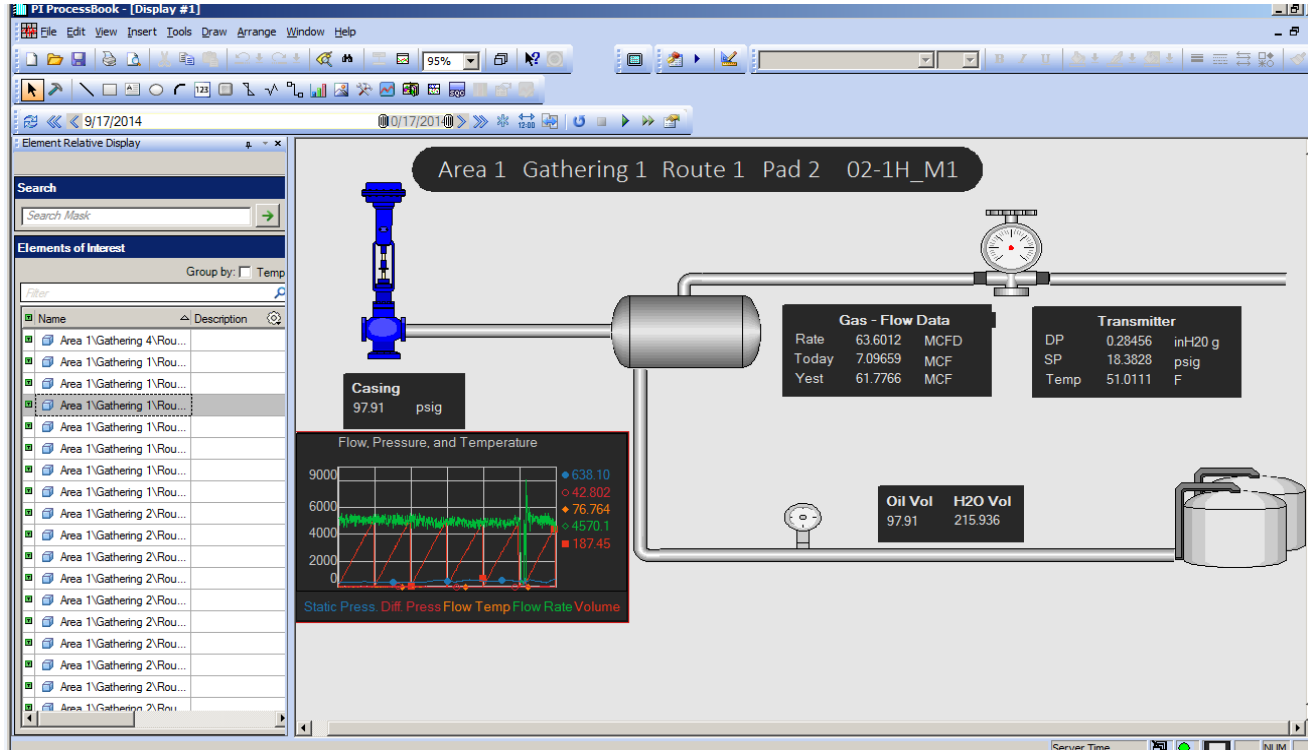
CygNet Alarms Analytics, Visualization, & Reporting in the PI System

Gathering 1	Gathering 1
Asset	*
StartTime	10/10/2014
EndTime	11/5/2014
Duration	50s

Alarm and Event Status

Start time	Duration	Area	Well	Meter	PAD	Route	Status
10-Oct-14 00:07:51	0 0:03:00	Area 1		02-1H_M1	Pad 2	Route 1	High Flow Rate
10-Oct-14 00:07:51	0 0:03:00	Area 1		02-3H_M1	Pad 2	Route 1	High Flow Rate
10-Oct-14 00:56:48	0 0:01:59	Area 1		10-1H_M1	Pad 13	Route 3	High Flow Rate
10-Oct-14 01:22:52	0 0:02:59	Area 1		02-1H_M1	Pad 2	Route 1	High Flow Rate
10-Oct-14 02:14:51	0 0:02:09	Area 1	WZ010-1H		Pad 13	Route 3	Low Casing Pressure
10-Oct-14 02:25:33	6 10:48:02	Area 1	WZ009-1H		Pad 11	Route 3	Low Casing Pressure
10-Oct-14 02:27:34	6 10:46:00	Area 1		09-1H_M1	Pad 11	Route 3	Low Flow Rate
10-Oct-14 03:06:50	0 0:14:01	Area 1		10-1H_M1	Pad 13	Route 3	High Flow Rate
10-Oct-14 03:24:48	0 0:06:01	Area 1		10-1H_M1	Pad 13	Route 3	High Flow Rate
10-Oct-14 03:48:57	0 0:08:23	Area 1	WZ010-1H		Pad 13	Route 3	Low Casing Pressure
10-Oct-14 03:59:15	0 0:11:51	Area 1	WZ010-1H		Pad 13	Route 3	Low Casing Pressure
10-Oct-14 04:45:19	0 0:01:32	Area 1	WZ010-1H		Pad 13	Route 3	Low Casing Pressure
10-Oct-14 05:13:52	0 0:02:58	Area 1		02-2H_M1	Pad 2	Route 1	High Flow Rate
10-Oct-14 05:17:36	0 0:01:58	Area 1	WZ010-1H		Pad 13	Route 3	Low Casing Pressure
10-Oct-14 05:29:13	0 0:13:42	Area 1	WZ010-1H		Pad 13	Route 3	Low Casing Pressure
10-Oct-14 06:16:54	0 0:02:11	Area 1	WZ010-1H		Pad 13	Route 3	Low Casing Pressure
10-Oct-14 06:24:59	0 0:06:16	Area 1	WZ010-1H		Pad 13	Route 3	Low Casing Pressure
10-Oct-14 06:33:03	0 0:01:48	Area 1	WZ010-1H		Pad 13	Route 3	Low Casing Pressure
10-Oct-14 06:43:03	0 0:02:06	Area 1	WZ010-1H		Pad 13	Route 3	Low Casing Pressure
10-Oct-14 07:25:51	0 0:03:00	Area 1		02-1H_M1	Pad 2	Route 1	High Flow Rate
10-Oct-14 07:44:51	0 0:04:04	Area 1	WZ010-1H		Pad 13	Route 3	Low Casing Pressure

Leveraging PI AF and Microsoft BI for Greater Insight to CygNet Information

Customer Perspective…….

"The CygNet-PI Connector opens up new choices for Statoil. Previously, the process to export CygNet data in the PI System was very cumbersome – which made it cost and time prohibitive. The Cygnet-PI Connector allows us to quickly export not only the data points but also the valuable meta data from CygNet directly into the PI System, straight into a PI AF structure. Once in the PI System, the analysis and reporting options are at our fingertips."
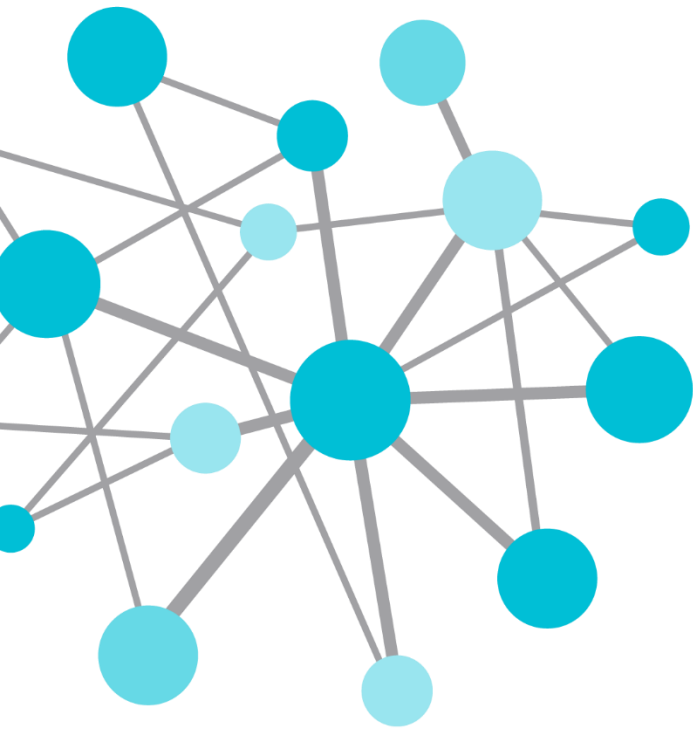
Matthew Fleharty, SCADA/Automation Lead, US Onshore, at Statoil

A "Best of Breed Model": CygNet & the PI System

- Excited about the Cygnet Connector

- Opportunity to address current pain points

- Ready for use…continuing to evolve features & functionality

- CES-Icon Ready to Engage

- Come Visit us at the CSE-Icon Table Top for a Demo

Questions

Please wait for the microphone before asking your question

Please state your name and your company

THANK YOU

Brought to you by OSIsoft.

John Miller

VP Operations

John.Miller@cse-icon.com

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