



# Time and Depth Based Analytics and Visualization in the PI System

Presented by **Ales Soudek**



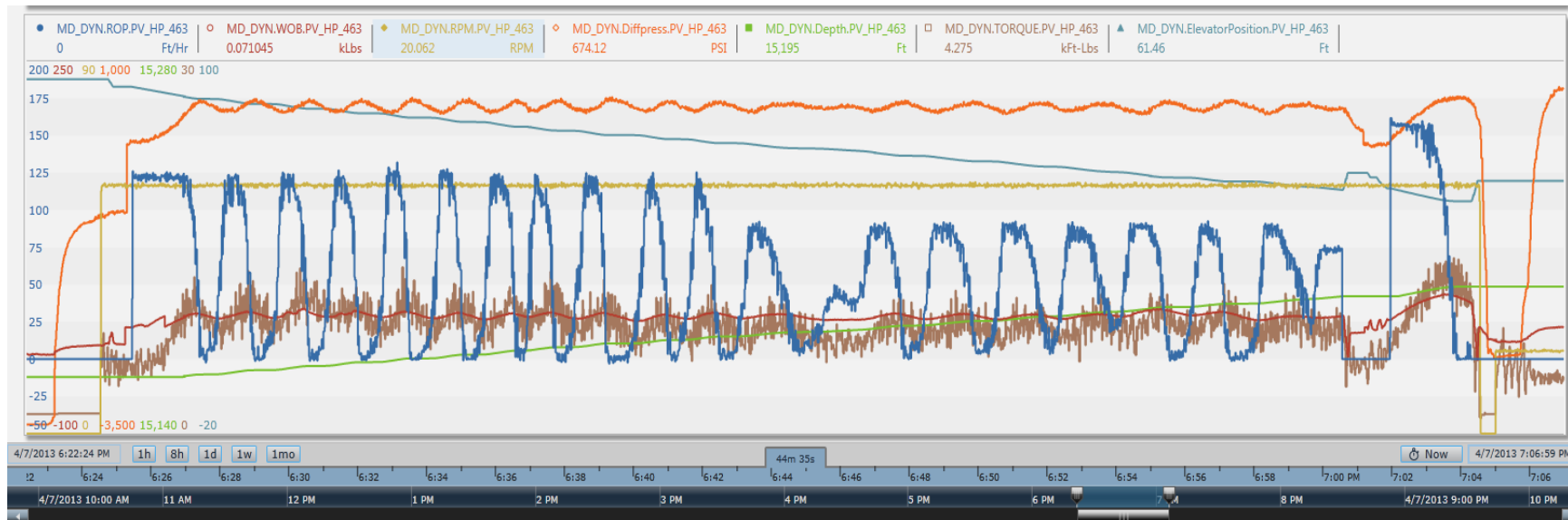
# Drilling Data Differences

- Low Number of Tags
- Data for 3 – 4 Week Drilling Cycle
- Trip outs
- Depth vs. Time Based
- Tag Organization

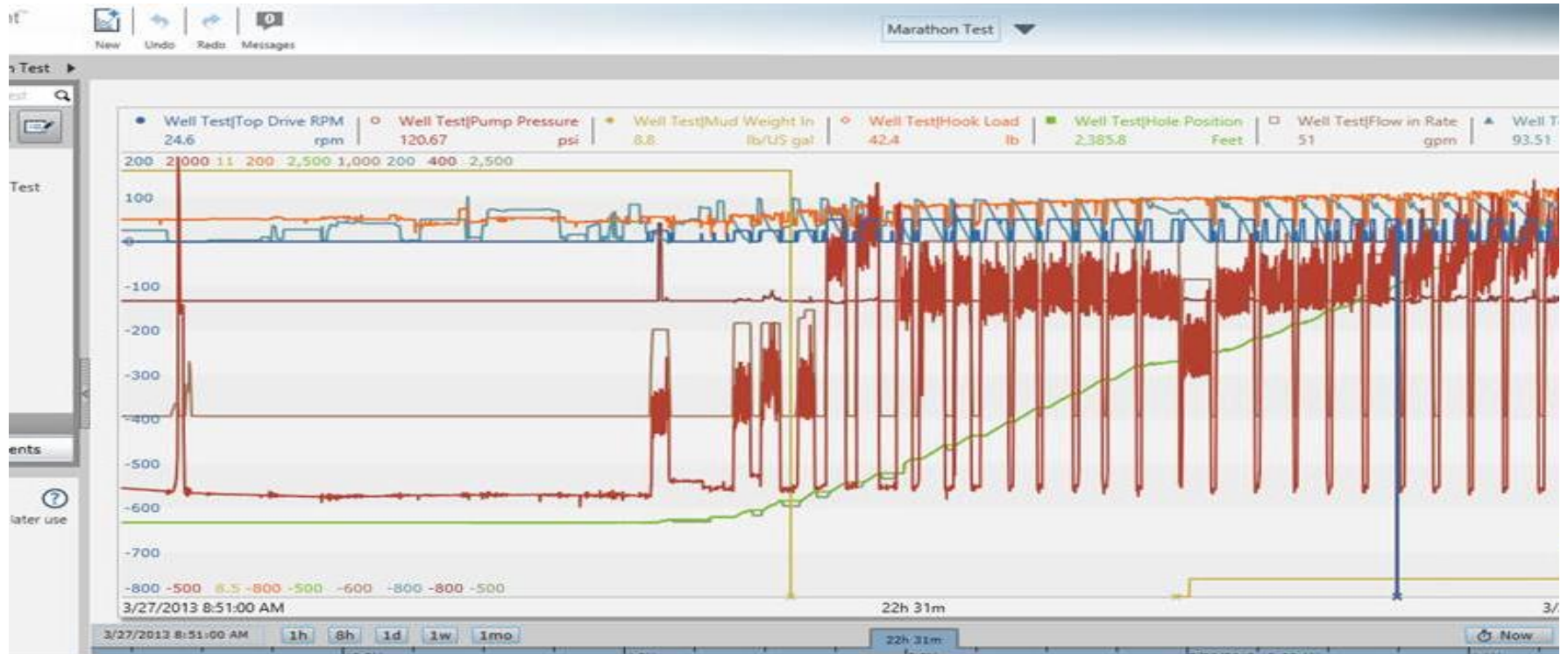
# Solution Ideas

- AF/ACE Transform Time to Depth Based
- Tag Belong to Drill Rig
- Wells Defined by Event Frames
  - Child-Events for Well Stages

# Drilling - Coresight



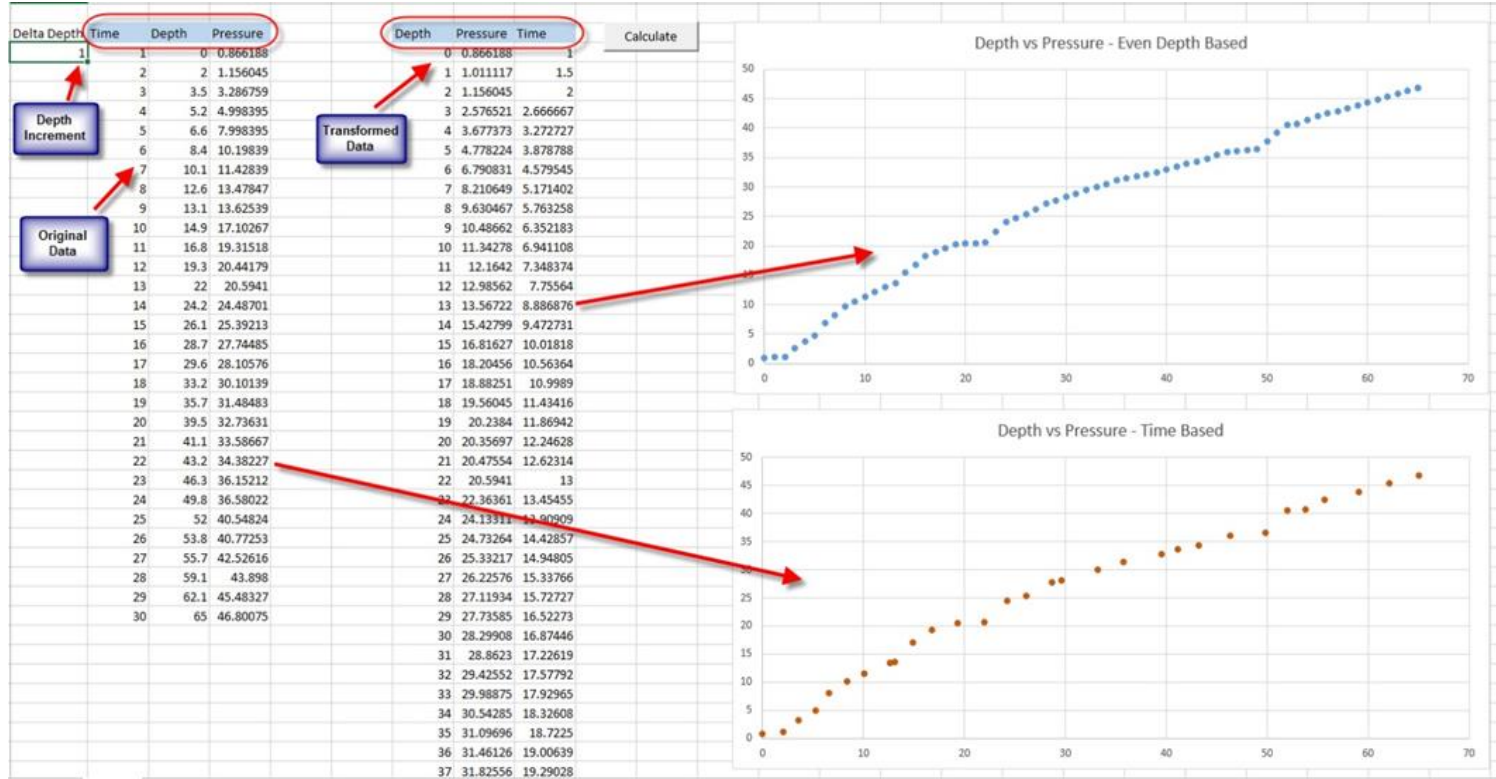
# Drilling - Coresight



# Drilling - Coresight

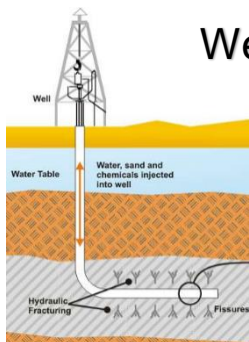


# Depth Based Transformation

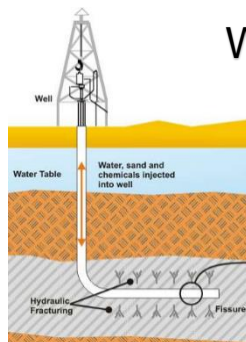


# Event Frames and Wells

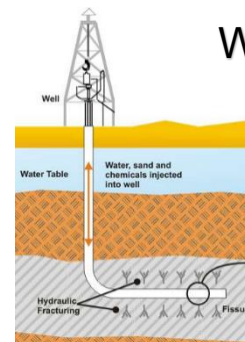
Well 1



Well 2



Well 3



Well 1		Well 2		Well 3					
Drilling 20140323-001	2/2/201	Drilling 20140323-001	2/2/201	Drilling 20140323-001	2/2/2014 12:59:00 PM	2/21/2014 1:00:04 PM	Drilling Rig 1		
Drilling 20140323-002	2/2/201	On Bottom 20140323-001		Sliding 20140323-001	2/2/2014 12:59:00 PM	2/2/2014 5:40:54 PM	Drilling Rig 1		
Drilling 20140323-003	2/2/201	Sliding 20140323-001		Drilling 20140323-002	2/2/2014 5:59:00 PM	2/2/2014 6:50:00 PM	Drilling Rig 1		
Drilling 20140323-004	2/4/201	Drilling 20140323-002		Drilling 20140323-002	2/2/2014 6:39:00 PM	2/2/2014 11:59:00 PM	Drilling Rig 1		
Sliding 20140323-001	2/2/201	Drilling 20140323-003		Drilling 20140323-003	2/2/2014 11:59:00 PM	2/4/2014 1:05:06 PM	Drilling Rig 1		
Sliding 20140323-002	2/4/201	Rotary Drilling 20140323...		Rotary Drilling 20140323...	2/3/2014 12:59:00 PM	2/7/2014 1:51:06 PM	Drilling Rig 1		
Sliding 20140323-003	2/12/201	Sliding 20140323-002		Sliding 20140323-002	2/4/2014 12:00:00 PM	2/4/2014 2:59:00 PM	Drilling Rig 1		
Sliding 20140323-004	2/17/201	On Bottom 20140323-002		On Bottom 20140323-002	2/4/2014 2:59:00 PM	2/5/2014 9:41:38 AM	Drilling Rig 1		
Sliding 20140323-005	2/19/201	Drilling 20140323-004		On Bottom 20140323-003	2/5/2014 5:59:00 PM	2/7/2014 1:42:19 PM	Drilling Rig 1		
On Bottom 20140323-001	2/2/201	On Bottom 20140323-003		Rotary Drilling 20140323...	2/8/2014 12:59:00 PM	2/18/2014 1:51:34 PM	Drilling Rig 1		
On Bottom 20140323-002	2/4/201	Rotary Drilling 20140323...		Sliding 20140323-003	2/12/2014 8:59:00 AM	2/12/2014 1:26:46 PM	Drilling Rig 1		
On Bottom 20140323-003	2/5/201	Sliding 20140323-003		Sliding 20140323-004	2/17/2014 12:59:00 PM	2/18/2014 1:27:00 PM	Drilling Rig 1		
Rotary Drilling 20140323...	2/3/201	Sliding 20140323-004		Sliding 20140323-005	2/19/2014 8:59:00 AM	2/20/2014 5:38:28 PM	Drilling Rig 1		
Rotary Drilling 20140323...	2/8/201	Sliding 20140323-005							

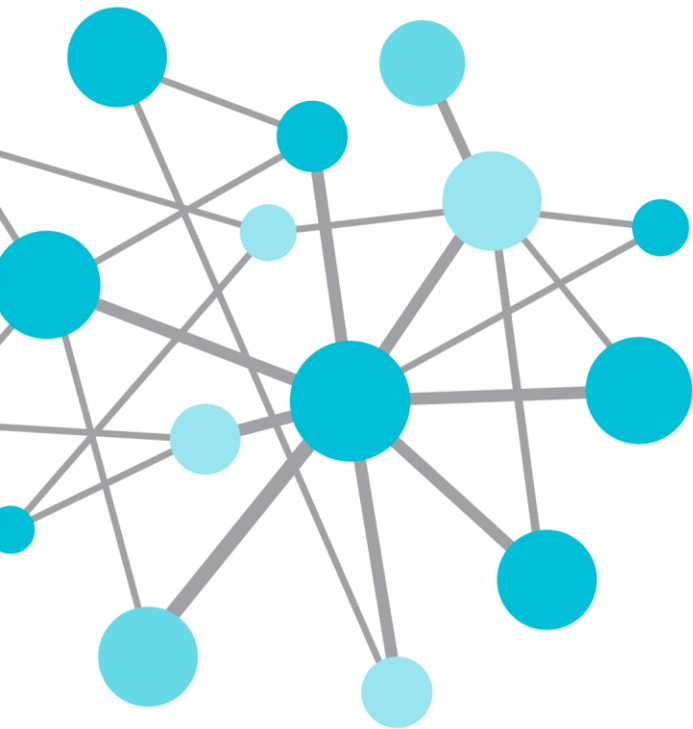


# Invitation to Participate in the Discussion

- Open to informal ideas and input
- Formation of a special interest group
- See me or discuss with Michael or Craig

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- OSIsoft, LLC



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YOU

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