

# **Session 1670**

## **Maximo for Oil and Gas: Implementation and Upgrade Secrets from the Field**

Mark Rolseth, Encana  
Joe Fluder/Mateen Nayyar, SunCoke  
Brad Knowles, Interloc Solutions

## Maximo for Oil & Gas Strengths

- ☞ Recognized industry leader (Gartner, etc.)
- ☞ Meets clients' business, functional & technical various oil & gas industry requirements and maintains strength in an ever changing asset management environment
- ☞ Fully Web-architected solution
- ☞ Provides unparalleled flexibility through its business process configuration capability
- ☞ Supports mission critical system interfaces and integrations

# Maximo for Oil & Gas

**interloc**  
100% Maximo®



# Maximo for Oil and Gas is Effective

- Managing regulatory assets like Pressure Vessels and Pipelines:
  - By adding some process controls in the PM process to ensure process adherence
  - Making use of the MoC applications to manage PM Work Order deferrals
  - Utilizing workflow in the management of Regulatory Work Orders to verify data entry
  - Data imports to load third party inspections into Maximo
  - Root cause analysis using Incident management



## **Let's hear from our clients....**

Mark Rolseth, Encana  
Joe Fluder/Mateen Nayaar, SunCoke

# Encana's Maximo Implementation

Maximo Oil and Gas

Mark Rolseth

IT Business Analyst

IBM Pulse 2013 | March 6<sup>th</sup> | 2013



# About Encana

Leading North American energy producer focused on growing its strong portfolio of diverse resource plays.



**Our Strategy: Unlock the tremendous value unrecognized within our asset base.**



# Achieving objectives through...

- Investing in the highest-return projects
- Establishing increased liquids weighting and diversifying revenue sources
- Maintaining industry-leading cost structures
- Leveraging third-party funding through farm-outs, partnerships and joint ventures





## On the Road to Maximo...



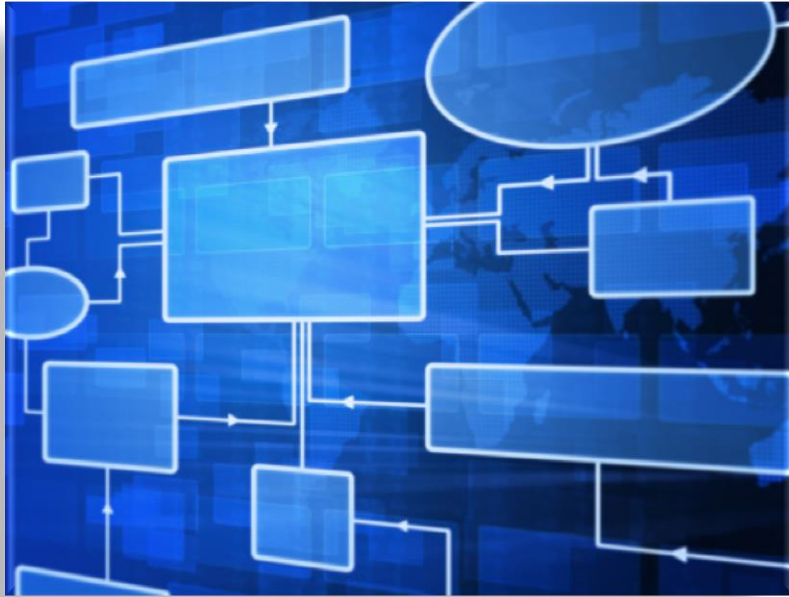
- **Encana had an aging Asset Management System with gaps in asset maintenance**
  - No condition based monitoring,
  - No work order cost rollup,
  - No labour time tracking,
  - No workflow
  - No integrated Purchase Order system
  - Poor equipment history tracking

## On the Road to Maximo...



- **Multiple applications for Maintenance and Regulatory Activities:**
  - Disjointed \ Unconnected Systems: Inventory, Job Plans, Schedules, Failure and Downtime Analysis and Preventative Maintenance
  - Often resulting in duplication of efforts

## On the Road to Maximo...



- Business Processes were:
  - Missing
  - Poorly defined
  - Varied from business unit to business unit



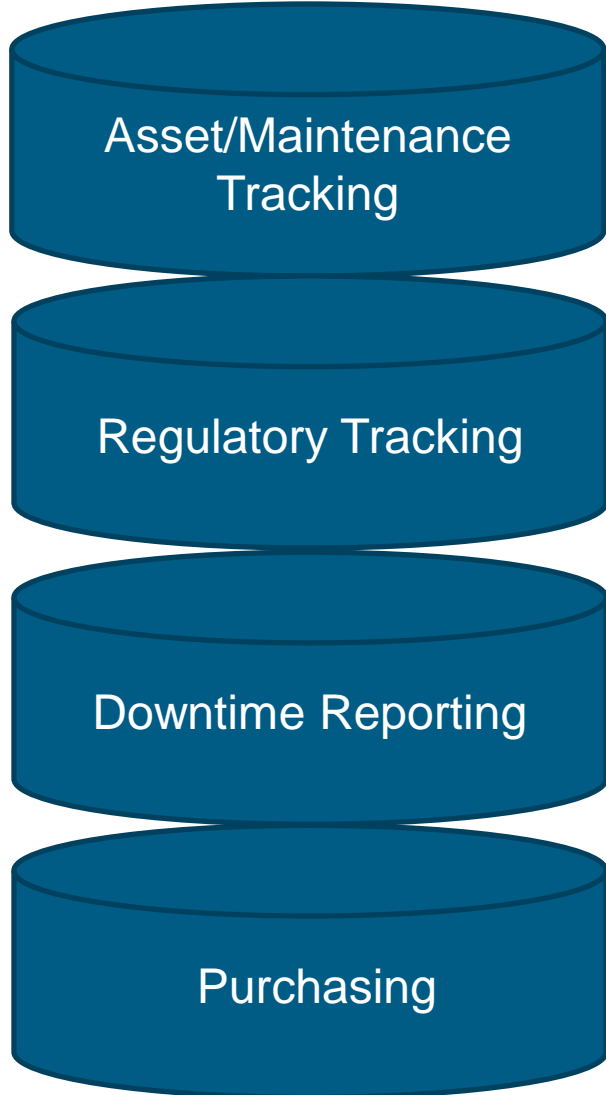
- Increased maintenance costs because of inefficiencies

# Where did the road lead us?

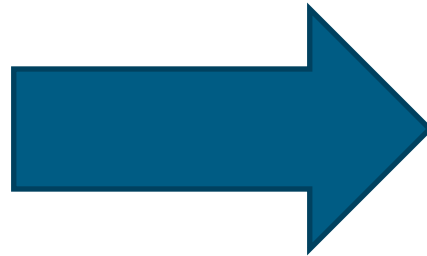


## 4 roads merge into 1

- 4 disconnected systems



- Replaced by 1 well integrated system





What did we learn on the way...



# What did we learn on the way...

## Big elephants:

Reporting requirements for asset maintenance and regulatory purposes were much larger than anticipated

Data migration requires transparency and constant testing

## Project team structure:

SME's need to be full time, dedicated project members

One project team with multiple streams is better than separate project teams

## Paving the way for Maximo in the company:

Continuous communication and roadshows to field users

Training Audiences

IT project members

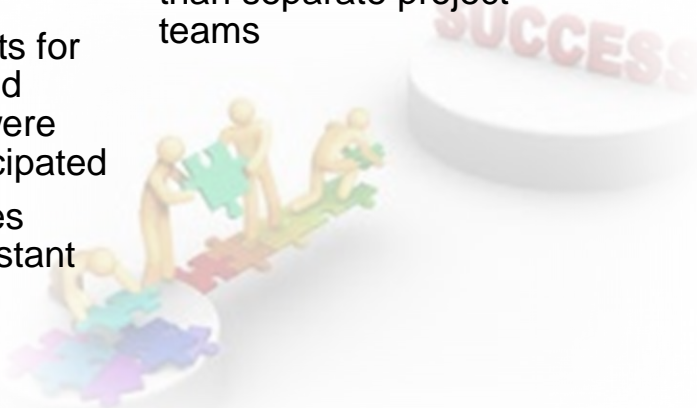
Business users

Timing of training delivery

prior to Implementation

AND

before/after rollout





# What did we get from the journey?

- ✓ **Streamlined Business Processes**
  - Workflow has allowed us to build consistency and realize efficiencies
- ✓ **Improved Data Quality/Integrity**
  - One database with consistent Information for both Maintenance and Regulatory Reporting
  - 85+ Advanced report requests leveraging clean data
- ✓ **Efficiencies in Scheduling of Preventative Maintenance and Regulatory work**
  - Less Downtime
- ✓ **Clear Upgrade/Enhancement Opportunities**
  - GIS, Linear assets, Condition Based Monitoring
- ✓ **Overwhelming adoption of Maximo**
  - 700 of total 800 Maximo licenses used within 5 months of launch
  - Support calls are decreasing

# Project Success





SunCoke Energy

# SunCoke Energy

## Management of Change Process

Joe Fluder – Director, Reliability & Maintenance

PULSE 2013

March 6, 2013



- \* Largest independent producer of high-quality metallurgical coke in the Americas
- \* 50 years of experience supplying coke to the integrated steel industry
- \* Internationally recognized leader in heat recovery cokemaking technology
- \* SunCoke also mines metallurgical coal, an integral product to cokemaking





5.9 million tons of cokemaking capacity with six facilities (five in U.S. and one in Brazil) and coal mining operations in Virginia and West Virginia





# Maximo at SunCoke Energy

- May 2009 - Maximo Project is approved
- October 2009 – implementation of v7.1.1.5 at first coke manufacturing plant.
- June 2010 - implementation at last coke manufacturing plant
- August 2010 – implementation at corporate office
- June 2012 – upgrade to O&G v7.1 industry solution
- August 2012 – implementation at coal mining operations begins
- April 2013 – planned upgrade to Maximo v7.5 / O&G v7.2



## O&G Upgrade

- The justification for the O&G upgrade was to:
  - Support our Health, Environmental and Safety systems and processes
    - Replacement Management of Change (MOC) system
    - Improve incident investigation
  - Global repository for documents
  - Integration with work management
  - 90% of SunCoke employees were already licensed users

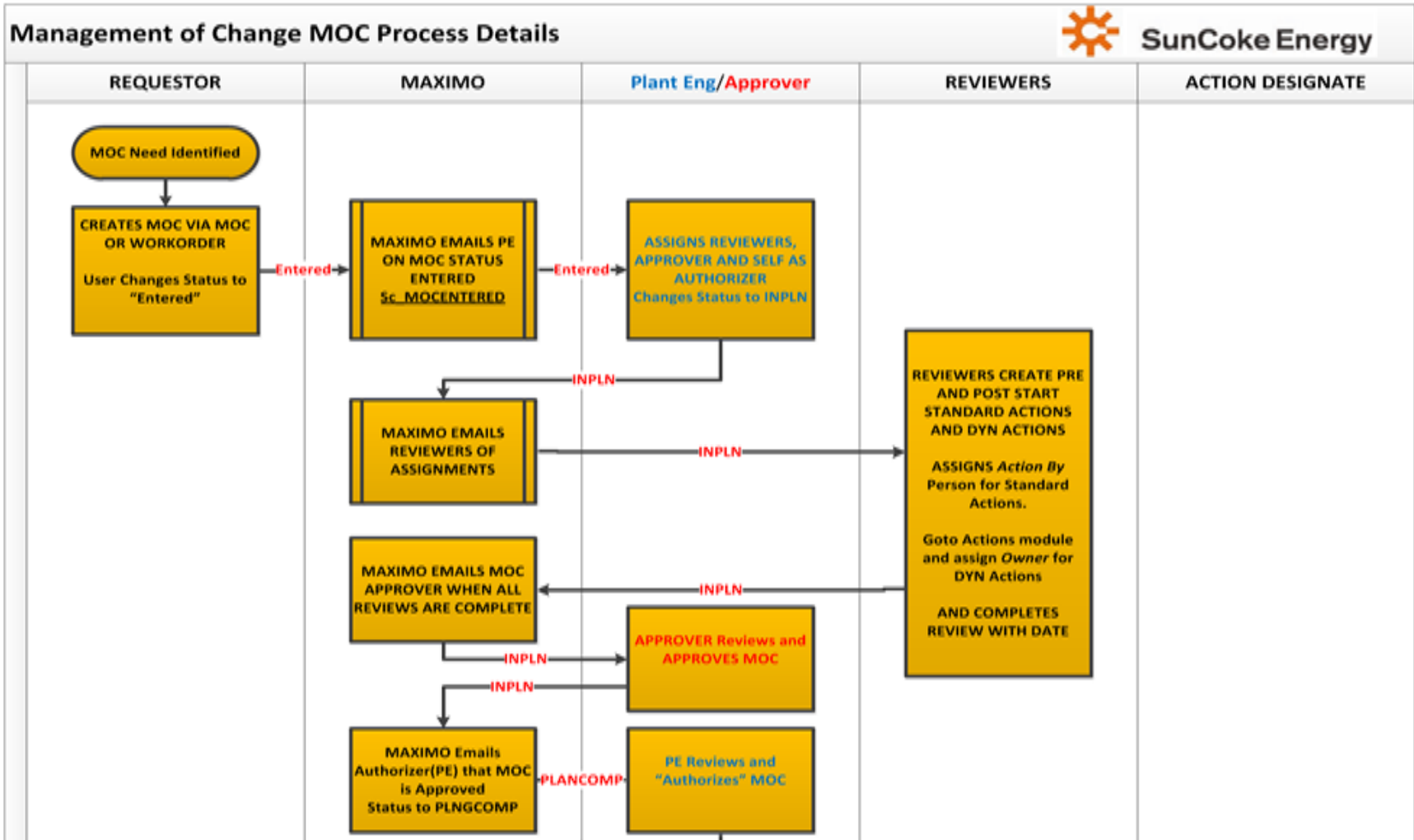




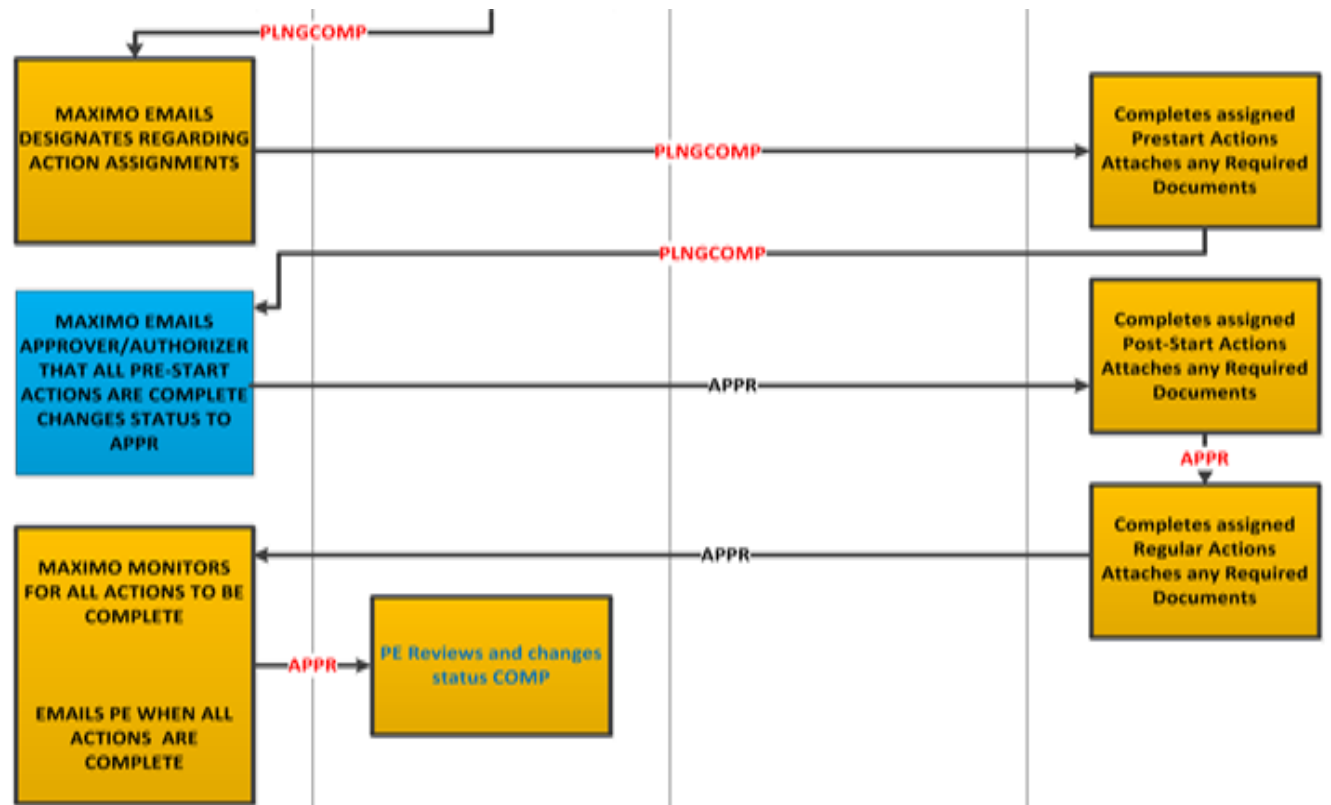
## MOC project scope

- The owner of the MOC process is our Plant Engineering group which presented these issues with the former MOC process:
  - Managing process with MS excel tool at individual site level.
  - Low visibility to site work management team
  - Manual approval process
  - Difficulty in assigning and tracking action items
  - No visibility to other sites
  - No visibility to corporate engineering resources
  - Changes / improvements to plant process and equipment not transferred.
  - Documentation on plant / personal drives

# SunCoke MOC Work Flow Process



# SunCoke MOC Work Flow Process (Continued)





# Benefits of the SunCoke Maximo MOC App

- Has “look & feel” of Work Order Tracking (WOT) app.
  - All plant users very familiar with WOT
  - Pull process – similar to maintenance work flow
- Site MOC owner (plant engineer) has a role similar to the “gate keeper” role in the maintenance work management process.
  - High level of security in MOC app



# Benefits of the SunCoke Maximo MOC App

- Visibility to site work management team
- Ability to assign individuals outside of plant as reviews or action item assignees.
- Automated email notification for reviewer, approvers and action item assignees.
- Corporate equipment specialist have visibility of changes.
- A library of *standard actions* for pre start-up and post start-up activities with specific instruction on what is required to complete the action contained in the action long description.



# Benefits of the SunCoke Maximo MOC App

- All related records (work orders, actions, email communications, etc.) become a permanent record of the MOC as related records.
- Maximo file attachment function exist to link all documentation and follow-up actions as a permanent record of the MOC.
- Desk top reporting and QBR available in application.
- Global Start Center template deployed.

# Standard Actions

MOC (Oil) Bulletins: (0) Go To Reports Start Center Profile Sign Out ? Help

Find:  Select Action

List MOC Review and Approve **MOC Pre-Start Actions** Authorize MOC Post-Start Actions MOC Closure Related Records Change Log

MOC\* 193702 TEST DELETE

Pre-Start Actions Filter 1 - 2 of 2

MOC Action	Description	Action By
1042	Add new assets / locations into Maximo.	REDDYS
1044	Add spare parts for all new equipment (assets)	REDDYS

MOC Action\* 1042 Add new assets / locations into Maximo.

Action By\* REDDYS Sanjay Reddy

Pre-Start Comment

Long Description

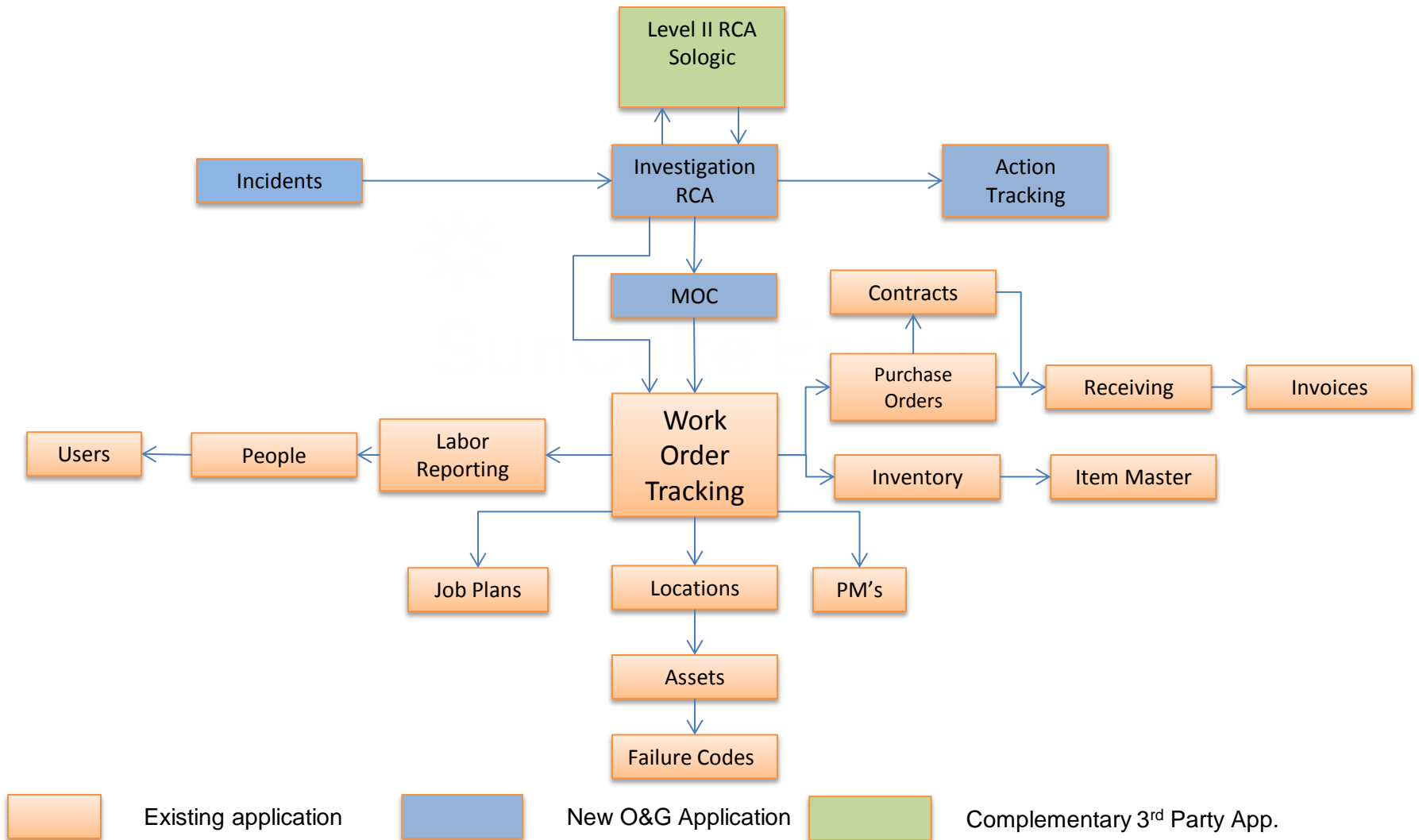
Add new assets / locations into Maximo.

Following the instructions in Maximo training document MXES-TR-04-12 add the new assets and locations to the site equipment hierarchy in Maximo. Contact the site reliability engineer for the criticality ranking assignment for new locations. Criticality assignments shall be made following the procedure contained in SCE - MTC - PRO - D020. If new equipment is being added to an existing location the current asset will need to be taken to decommissioned status.

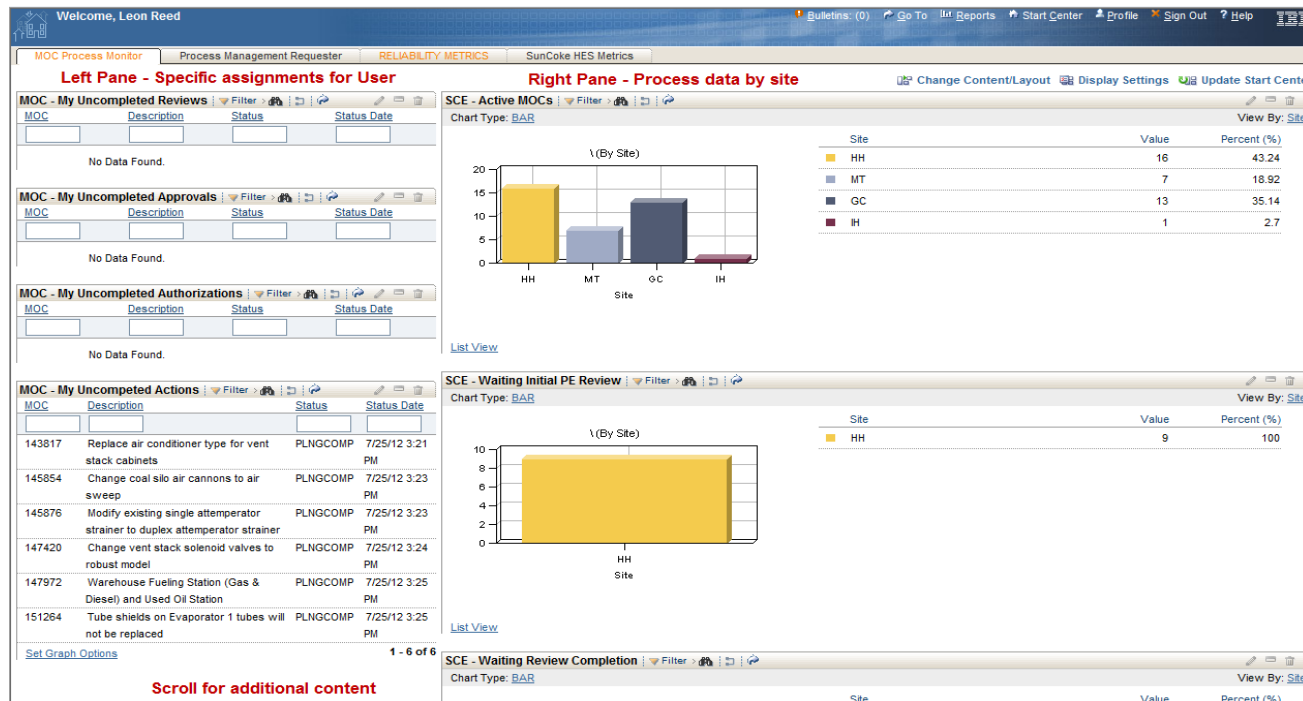
OC Actions



When an RCA is managed within the Investigation application Maximo establishes a relationship of *related records* within the database. All information relating to an event is linked as part of the permanent record.



# MOC Process Monitor Dashboard



All users have a “MOC Process Monitor” Start Center tab that defines specific items assigned to them as well as MOC Process data by site.



2012 Tivoli Award Winners  
Best of Show  
Smarter Planet for Asset Management

2013 Beacon Award Finalist  
Best Solution to Optimize the World's Infrastructure



# Interloc Solutions / Maximo Skills

- ☉ IBM AAA EAM technical accreditation across all of North America
- ☉ IBM Pulse 2012 Winner of Two Awards
  - Smarter Planet for EAM for BART Implementation (1 of 8 submittals)
  - Best of Show Innovative Solution-Mobile Informer (1 of 12 submittals)
- ☉ IBM Beacon 2013 Finalist
  - Best Solution to Optimize the World's Infrastructure
- ☉ Proven functional and technical experience in implementing Maximo EAM throughout large enterprises  
Contracted with IBM to provide Level 1 & 2 client software support

2012 IBM **TIVOLI**  **AWARD WINNER**

# Interloc Project Team Best Practices

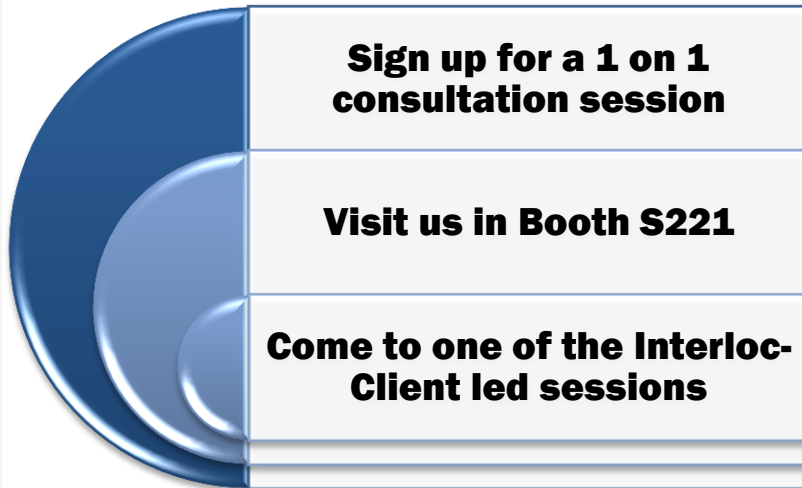
## Functional

- Project Management based on standard PMI methodology
- Comprehensive “baseline” Implementation Project Plan, a working model to insure a shared vision between POA and the consulting team
- Proven transportation industry business modeling approach

## Technical

- Technical tools to evaluate accuracy and performance:
  - Mockito, Jmeter
- Innovative technical tools to increase implementation efficiency and productivity:
  - Interloc Data Loader
  - Interloc Release Manager
  - Junit for Maximo

# Come see Interloc!



**Session 1668:** Effort required to upgrade to Maximo 7.5: Lessons learned across industry

**Session 1669:** Maximo Mobility: A question of when not if (and how)

**Session 1661:** How General Mills and Flint Hills Resources leveraged Maximo to optimize inventory and save money

**Session 2260:** Maintenance mobility on Interloc's Mobile Informer

Learn more at:

[www.interlocsolutions.com/Interloc-Solutions-is-at-IBM-Pulse/](http://www.interlocsolutions.com/Interloc-Solutions-is-at-IBM-Pulse/)

## Discussion Questions:

- ④ What functionality in Maximo do you find most beneficial to your company?
- ④ Do you have any regulatory assets that could still be managed better in Maximo?
- ④ What is next for your organization?



# Questions?

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