



# SEMCAMS “DO IT YOURSELF” UPGRADE FROM MAXIMO 4 TO 7

Patti Christianson – Maintenance Process/System Specialist  
Cooper Smith – Application Support Analyst

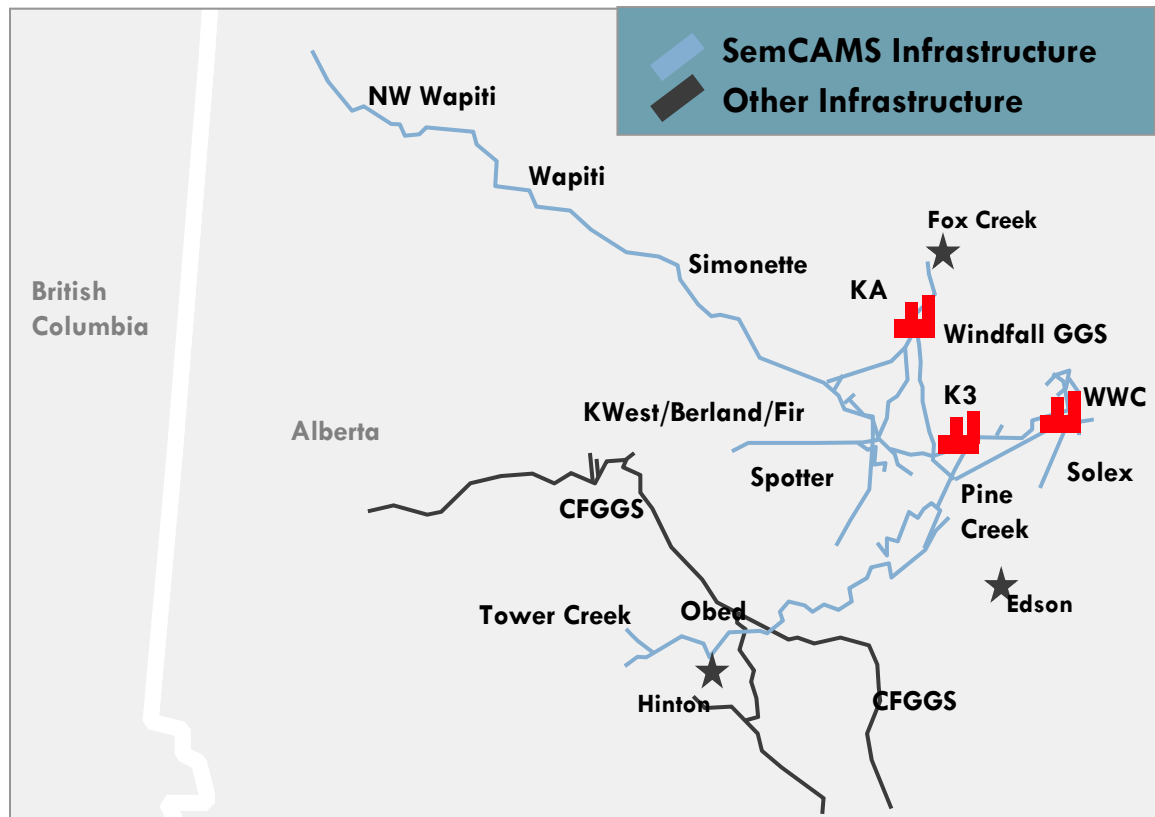
# Objective

2

- We are here today to offer our experience with SemCAMS Process Development/Enhancement and Maximo 4 Upgrade to 7.
- Our experiences do not reflect positive/negative on the IBM Maximo Application as a product.
- Your experiences may present different challenges and hope that our insight is beneficial to your organization.



# Who is SemCAMS?



- SemCAMS operates 3 major gas plants in the Fox Creek Whitecourt area
- SemCAMS operates extensive gas gathering between the plants and Grande Prairie / Hinton areas



# SemCAMS and Maximo

4

- ❑ Manages Maintenance activities
- ❑ Manages Inventory
- ❑ Manages Purchasing

# Why Upgrade

5

- ❑ IBM Support for Maximo 4 was ending
- ❑ Oracle Support for 8i was ending
- ❑ SemCAMIS was running outdated version 4.1 (not even 4.1.1)
- ❑ Leverage new features

# Why “Do It Yourself”

6

- ❑ Cost Effective
- ❑ Make use of Internal Resources
- ❑ Align Company Processes

# Pre Maximo Upgrade...What Steps did we Take?

7

- 2007
  - Matrikon Performed a Maximo Upgrade Proposal & Assessment
    - Identified Opportunities (Big Hitters)
      - Identify Location/Asset Criticality
      - Implement Handheld Devices
      - Implement Material Mgmt KPI's
      - Inconsistent Business Processes between sites
      - Multiple silos of data; no integration
      - Cleanup of legacy data
      - Implement Failure Codes

# Pre Maximo Upgrade...What Steps did we Take?

8

- Cost Projection on Upgrading was \$750k
  - 655K was 3<sup>rd</sup> party Consulting Fees
  - 35k Hardware
  - 60k Internal Labor



# Pre Maximo Upgrade...What Steps did we Take?

9

- 2008
  - Optimize Planning processes, tools, skills to best position SemCAMS to achieve lowest cost preparation for Maximo Upgrade. Develop common processes, then integrate system.
  - Conscious decision made to give ourselves enough time to: consider, decide carefully, focus on highest value improvements and time to absorb for sustainability.
  - Dennis Van Oene (Ebooks – Senior Planning Specialist) brought in to work with SemCAMS on Developing/Streamlining/Aligning present Business Processes

# Pre Maximo Upgrade...What Steps did we Take?

10

- ❑ Developed SemCAMS Criticality Business Rules and applied to all locations
- ❑ Defined and Implemented Scheduling Meetings (Weekly, Monthly, Quarterly & Yearly)
- ❑ Developed/Refined Common Planning/Scheduling/Inventory/Purchasing Business Rules, Procedures, Reports and Definitions.
- ❑ Implemented Processes

# Pre Maximo Upgrade...What Steps did we Take?

11

- April 2008 – February 2010
  - Performed audits (2/site)
    - Communicated findings
    - Action Plans to maintain sustainability
    - Follow-up
  - Spend-to-Date (Process Development) 181k
    - 140K 3<sup>rd</sup> Party Consulting Fees
    - 41 K Internal Labor
  - Ready for Maximo Upgrade

# Maximo Upgrade

12

- February 2010 – October 2010
  - Developed/communicated Milestone Schedule/Framing Document (Internal Resourcing and Vacation taken into consideration)
    - Project Authorization to Proceed April 5, 2010
    - Date Import Completion June 25/10
    - Data Scrub Completion Sept 10/10
    - Audit Review & Signoff of test environment Sept 17/10

# Maximo Upgrade

13

- SuperUser Training (Train the trainer) week of Sept 13-17
- Run Maximo 4 & 7 parallel for 2 weeks Sept 20 -Oct 1
- Development of Internal Training Manuals Sept 20 – Oct 1
- Cut-off for “New” inputs Sept 30
- Cut-off for sign in to Maximo 4 – October 6
- Go Live – October 12
- Internal Staff training week of October 12

# Maximo Upgrade

14

- How did we set ourselves up for Success?
  - PM & IT Bi-weekly teleconferences with Ontracks
  - PM Bi-weekly updates with VP Ops
  - Implemented Quarterly “Maximo Momentum” Newsletter
  - Complete review of all data, cleanup prior to upgrade

# Maximo Upgrade

15

- ▣ Maximo 7 Conference Room Pilots
- ▣ Maximo 7 Tips N Tricks added to Web Page
- ▣ Maximo 7 Manual (Ontracks) added to Web Page
- ▣ Communicate, communicate, communicate!

# Maximo Upgrade

16

- What else did we Integrate/Implement?
  - Qualifications Module (Formerly HES Access Database)
  - Purchased Maximo Mobile Inventory Manager
  - Failure Codes
  - Global Schedule
  - Global Mtc Mgmt Report
  - Notifications/Escalations



# Maximo Upgrade

17

- What did we do well?
  - Met our timeline
  - Train the Trainer very successful
  - Great communication
  - Dedication of Team
  - Pay-it-Forward
  - 4 year project under budget 357K!!!!!!

# Maximo Upgrade

18

- Opportunities
  - Resourcing
  - “Testing” requirements not defined enough
  - Use tools in place as a reference to resolve own issues(too dependent on others)
  - Improved Team sharing of knowledge
  - Team Leader support throughout project

# Post Project – What are we doing now?

19

- ❑ Continue with Monthly Team Meetings and Newsletter
- ❑ Investigate/Proposal for additional Integrations
- ❑ Developed 20 Internal Manuals & Review of Existing Business Rules/Procedures
- ❑ Increased # of escalations/notifications & implemented a Maximo PM Program
- ❑ Audits – Process and System
- ❑ Further KPI Development
- ❑ Development of 5 Year Maximo Plan

# Technical Part of Upgrade

20

- Maximo 4 system
- Upgrade Goals and Path
- Maximo 7 Setup and Configurations
- Data Import
- Lessons Learned

# Maximo 4 Setup

21

- Maximo 4.1
  - ▣ Last update November 2000
- Database
  - ▣ Oracle 8i on Windows 2000
- Users run on desktop or Citrix
- Security Groups based on Site and Role
- Reporting SQR and Corporate Reporting Tool (Oracle BI Publisher)

# Maximo 4 Customization

22

- Partial Data segregation by Plant
  - DB Schemas based on value in extra field
- DB Trigger
  - Auto populate some fields
- Reports
  - Custom SQR
  - Highly modified SQR Reports
- Old legacy data still in system
  - Hidden but still in DB

# Upgrade Goals

23

- ❑ Use latest version of Maximo possible
- ❑ Opportunity to clean up Data
- ❑ Consolidate Reports
- ❑ Use Maximo configurations not customizations
- ❑ Use Active Directory for Authentication
- ❑ Utilized new Features
- ❑ Integrations with other systems

# Upgrade Path

24

- Could not use IBM Upgrade Utility
  - ▣ due to version (4.1 not 4.1.1)
- Not “Upgrade” but Implementation with Data Import
- Use Maximo 7 or 6
- 5 month timeline
  - ▣ Learn, configure, import data, and test



# Maximo 7 Environment

25

- Maximo 7.1.1.7
- Application Server
  - ▣ Websphere 6.1.0.23
  - ▣ Windows 2008 R2
- Database Server
  - ▣ Oracle 11.2.0.1
  - ▣ Windows 2008 R2
- Test/Dev Environments Run on VM's (Hyper-V)
- Desktop Standard IE 7

# Maximo 7 Setup

26

- Single Organization
- Single Site
- Active Directory
  - ▣ manage users, groups and authentication
- Security Groups by Role and Data access
  - ▣ Planners, Supervisors, Warehouse/Purchasing

# Maximo 7 Configurations

27

- ❑ Data segregation duplicated by adding OPSSITE field and security group data restrictions
- ❑ Cross over domains for field defaults
- ❑ Additional fields to meet business needs
- ❑ Condition expressions to enforce field inputs and status changes
- ❑ Screen configurations
- ❑ SR to Work Order workflow
- ❑ Automatic PM Generation

# Maximo 7 Reporting

28

- Birt vs Corporate Reporting Tool (BI Publisher)
- New and Consolidated reports created in BI Publisher
  - ▣ More knowledge and resources
- Modifications to BIRT reports when business process favor direct prints from maximo
- External Report Integration for specific BI reports

# Maximo 7 Integrations

- ❑ Financial System into Maximo
  - ❑ RGC Code domain update
  - ❑ Cost Centre and AFE Terminations
- ❑ Maximo to Maximo
  - ❑ Create workorder for expiring Qualifications
- ❑ Maximo into Accounts Payable
  - ❑ Import coding from Purchase Orders

# Maximo 7 Data Import

30

- Choose MIF
  - ▣ Follow Maximo rules, reduce data integrity issues
  - ▣ Used Interface tables with DB link to Maximo 4
  
- Majority of Time focused on learning MIF, import data, data quality
  - ▣ Finished with 40+ enterprise services and interface tables

# Maximo 7 Data Import Results

- 5 days for initial data import
  - 2 years of scrubbed data
  - 34000 work orders
  - 11000 purchase orders
  - 94000 material , labor, and service transactions
  - 21000 inventory items
  - 13000 locations
  - 13000 assets
  - 3000 PM's
  - 2400 Job Plans
  - Plus more supporting data

# Maximo 7 Features Most Used

32

- ❑ Users in multiple security groups
- ❑ Escalations and Notifications
- ❑ Conditional Expressions
- ❑ Field Auditing
- ❑ Application Designer
- ❑ MIF data updates
- ❑ Query Based Reporting



# Lessons Learned

- ❑ MIF documentation/MBO rules not well documented
- ❑ MIF Not Ideal for importing historical transactional data
  - ❑ Can be slow as it follows all rules
  - ❑ Transactions have cascading effect
- ❑ Task as work orders biggest change to schema
  - ❑ Big change for reports and queries

# Lessons Learned

34

- Move to web based interface a big change
  - ▣ Session time outs
  - ▣ No more grid based inputting
  - ▣ Different User Experience
- Change in licensing
  - ▣ Who really needs access
  - ▣ Move to Service Requests

# Resources and Tools

- Resources:

- Maximo Times
- Yahoo Maximo Group
- IBM Developerworks Forum
- Ontracks Consulting

- Tools

- Toad for SQL Tuning and Script Development
- Maximo Comparison Tool for all configurations
- QuerySmith for Visual Sql Development

# Opportunities

36

- Replace other applications
- Further integrations to reduce duplicate inputs

# Questions

37

?????

# Contact

38

- Patti Christianson – Maintenance Process/System Specialist
  - [pchristianson@semgroupcorp.com](mailto:pchristianson@semgroupcorp.com)
  
- Cooper Smith – Application Support Analyst
  - [cosmith@semgroupcorp.com](mailto:cosmith@semgroupcorp.com)