



# Using Maximo to Manage Regulatory Compliance and Regulatory Reporting

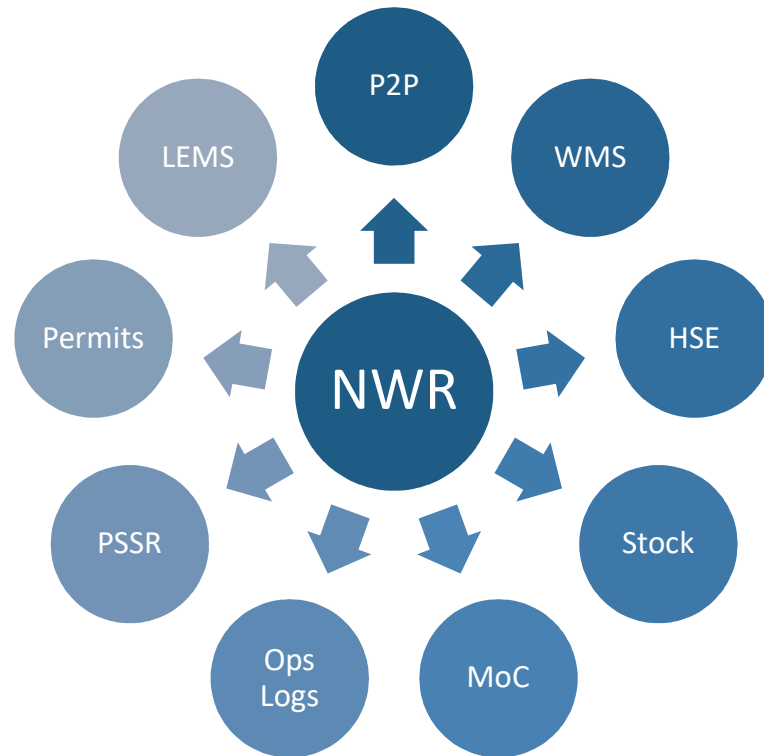
Presenters: Simon Barnes and Kris Nordal

[Simon.Barnes@bpdzenith.com](mailto:Simon.Barnes@bpdzenith.com)

[knordal@nwrpartnership.com](mailto:knordal@nwrpartnership.com)



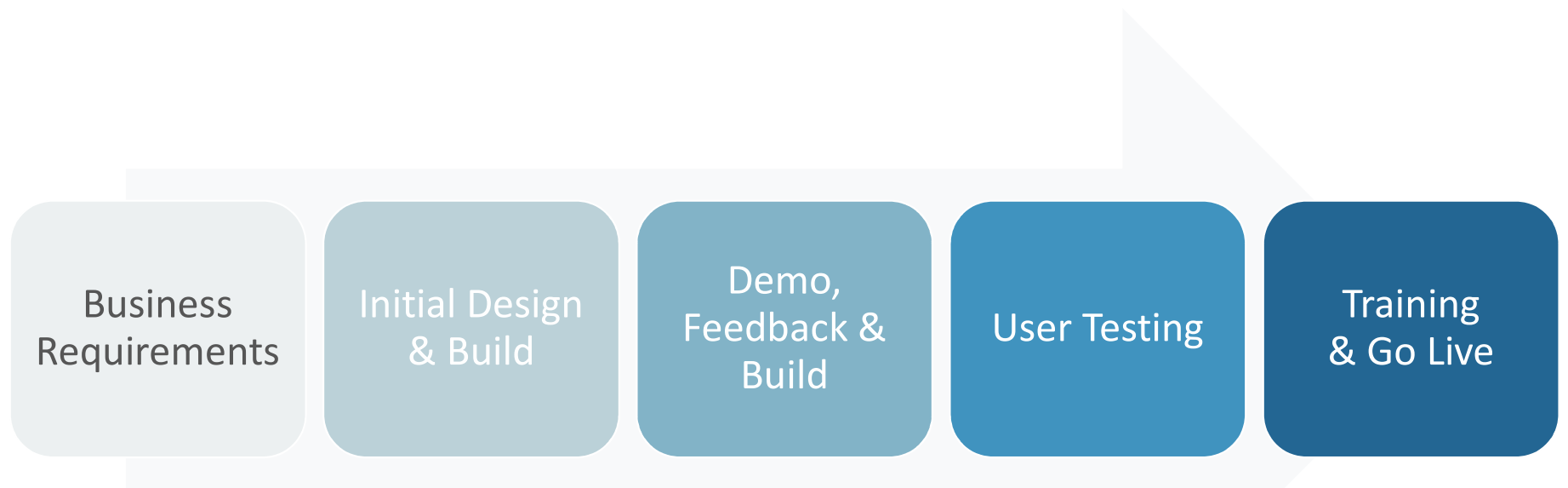
# Scope of Maximo



# What problem did we have?

- Our HSER group felt that they had very unique requirements that would only be met by software that was HSE focused
- We had a mandate to use Maximo for as much as we could
- The operations group and M&R did not want to use two systems and were concerned that observations and remediations would be lost.
- They also wanted to track activities in Work Orders
- And ultimately we wanted to assure that we complied with all the reporting activities associated with Health & Safety and Environment.

# Deployment Methodology



# NWR HSE Deployment

## Incident Management

- Incident Recording (Activities)
- Investigations (Activities)
- Corrective Action Plans (Work Orders & Activities)

## Regulatory Compliance

- Regulations and Compliance
- Compliance Calendar (Activities)
- Risk Management

## Work Management

- Work Orders (Operations & Maintenance)
- HSER Activities (Non-Operational Users)

# Challenges (HSE)

## Incident Management

- All Users can Read but edit limited by User
- Multiple Consequences
- Impacted Persons & Confidentiality
- Multiple Regulations
- Release Material Data
- Investigations – Root Cause Analysis – Causal Factors
- Action Plans – Create Activities as well as Work Orders

## Regulatory Compliance

- Regulations
- Compliance Tasks
  - Cannot generate Activities from a PM
- Tool Inspections
- Risk Assessments from MoC etc.
- Attachments
- In Content Server
  - Confidential Reports that cannot be read

## Work Management

- Work Orders
  - When Work needed to be carried out by Ops / Maintenance
- Activities
  - Separate from WOs from Non-Operational Staff
  - Simplified Processing – no time entry.

# Challenges & Solutions

## Challenge

All Users can Read but edit limited by User

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- Access to update was limited to: Reported By & Reviewer, HSE Specialists, Owner, Current WF Owner and Investigative Team (Investigation and Action Plan).

## Solution

Conditional UI & Auto scripts

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- Complexity in what was Conditional was controlled through Auto scripts rather than Conditional UI – except for Application Layer (Buttons, etc.)
- Data Restrictions where used to redact confidential information

# Challenges & Solutions

## Challenge

## Multiple Consequences

- Each Incident could have multiple outcomes or consequences as a result of the Incident: Injury, Environment, Fire & Explosion; etc.
- Each required its own Category, Sub Category & Data

## Solution

## New Object

- OOTB allows only one Classification of the Incident. A new object “Consequences” was created to allow for multiple records to be added with Classifications.
- The details were added on a separate Tab but a summary displayed on the main Incident Tab.



# Challenges & Solutions

## Challenge

### Impacted Persons & Confidentiality

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- During Initial Design there was the capability to add Injury details to multiple Affected Persons. This was added to a later 7.6 Version.
- Although details of the injury could be shown any name given must be redacted.

## Solution

### New Object & Data Restrictions

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- Extending Affected Persons with a Injury Object – multiple Injuries can be recorded for the same Affected Person.
- Name of the Affected Person (and their Person record if used) was hidden using Global Data Restrictions

# Challenges & Solutions

## Challenge

### Investigations – Root Cause Analysis

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- NWR's preferred method for Root Cause Analysis was to use a hybrid model that had a hierarchical RCFA allowing for multiple Root Causes & Recommendations to be recorded followed by an Action Plan.

## Solution

### New Object

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- Additional Hybrid model was built allowing for record multiple Root Causes with ability to add a Classification to each Root Cause.

# Challenges & Solutions

## Challenge

### Cannot generate Activities from a PM

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- Decision was to specifically separate Activities (work done in HSE, Compliance, MoC, etc.) from Work Orders (Operations & Maintenance).
- Use of a PM to generate Activities is not feasible

## Solution

### Compliance Tasks & Generator

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- Tasks associated with Compliance do not have the complexity of a Work Order, a simple Description, Owner and Due Date are sufficient.
- Attached to Regulations is the ability to add Tasks, with a Frequency etc. The next Task being created when the current one is completed.

# Challenges & Solutions

## Challenge

### Confidential Reports that cannot be read

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- Although most attachments applied to the Incident are readable they are initially load directly into Content Server (CS)
- Some of these attachments are confidential and cannot be read by anyone.

## Solution

### Launch In Context

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- The Incident # is linked to CS, clicking on a link In Maximo would show CS folder for that Incident.
- When this is clicked for the first time, a folder is created with a template structure below – access is managed in CS

# Maximo Versions

- Standard Vs (O&G and HSE)
  - Incidents – added functionality:
    - Regulations, Persons Impacted, Risk, Impact
    - Sequence of Events, Context (Lesson Learnt)
  - Investigations, Audit & Surveys, Certifications
  - Action Tracking
  - Self Service Incidents
- Regulatory Compliance (O&G and HSE)
  - Regulations
  - Risk Matrix & Risk Assessments
  - Benefits & Losses
- Standard Maximo now has Inspections.

# Take Aways

- Early engagement with the Business Users and continuing through the Design & Build process reaped great results as a system that they wanted was delivered.
- All Configuration, extensive but no Customization.
- System built with flexibility where needed, entrusting Users, that are Competent, Professional, Trained and aware of benefits of Data Quality



Presenter: Simon Barnes  
Principal Consultant  
BPD Zenith Canada

[Simon.Barnes@bpdzenith.com](mailto:Simon.Barnes@bpdzenith.com)

