

REAL-TIME PERFORMANCE MANAGEMENT FOR THE ENTERPRISE

RtPM



REAL-TIME PERFORMANCE MANAGEMENT FOR THE ENTERPRISE

RtPM



*Leveraging **OSISOFT RtPortal** and SAP NetWeaver to Enhance and Extend EAM*

George Muller

Opening Video

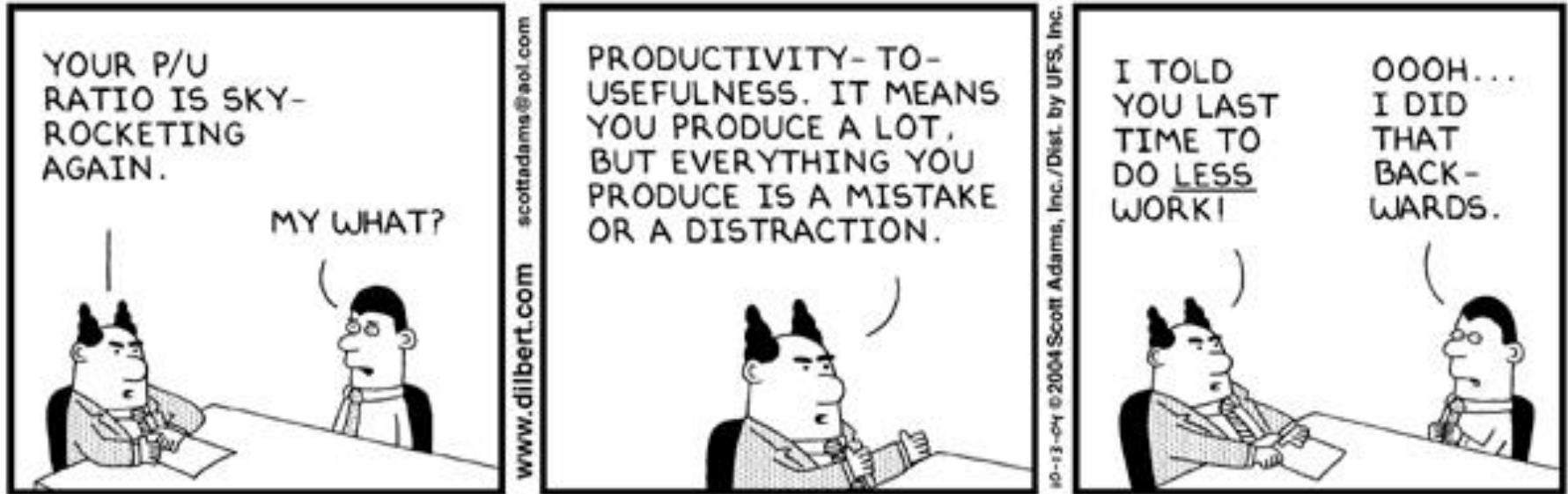
The Agenda

- Why
- What
- Demo
- How / Architecture
- What's Next
- Key Points



The Business Objectives ...

"It becomes a major role of (management) to kind of herd the cats in and make them all line up in a reasonable way," Barry Wilderman, Meta Group.



© UFS, Inc.

... Alignment yielding Useful Productivity Improvement

About Conectiv Energy

- PEPCO Holding Inc. (PHI), a Fortune 300 investor-owned utility based in Washington, DC, USA
- Conectiv Energy owns and operates generating facilities in New Jersey, Delaware, and Pennsylvania.
- Using SAP since 1997, OSIsoft PI since forever.
- Conectiv Energy markets its energy and capacity into the competitive PJM market
- PHI, through its regulated delivery businesses, Conectiv Power Delivery and PEPCO, serves the Greater Washington DC area, Delaware Peninsula and New Jersey

**Make Electricity and Trade Commodities
in a Competitive Market**



Impact of the Deregulation

Deregulation presents challenges and opportunities:

- Competitive business operations
- New plant, employees, culture, processes
- Old and new IT systems
- A vision of a common operating platform



The Operational Challenges

- Equipment information
- Maintenance System (EAM) adoption
- Integration of systems
- Timely information to a broad audience

Requires a new strategy...



EAM Strategy – Key Requirements

- Leverage systems investments
 - SAP
 - OSIsoft PI
- Support the new culture
- Enable new work processes
- Integrating & Extending Information
- Build a platform for the future
- And



Managing User Expectations



Copyright © 2003 United Feature Syndicate, Inc.

Stakeholder Perspectives



Plant Management

- Bottom line \$
- Process enablement
- **Productivity**
- Culture
- **Plant status**
- Reporting



Planners

- **Accurate, integrated information** about equipment, materials and work.
- Tools to aid work planning.



Engineering

- Equipment work history & status
- Parts & materials information
- **Real Time Performance data**



Operators / technicians

- Notification reporting
- Information about equipment and work
- **Operational Data**

IT

- Meeting business needs
- **Leveraging systems & skills**
- Standardization
- Building toward the vision



Our Solution to Meet the Challenges:

SAP NetWeaver, NRX VIP/ACM, and OSIsoft RtBaseLine / WebParts

- Enhances SAP PM and MM usability
- Leverages investments in EAM and PI
- Provides timely information
- Integrates information and function
- Improves Productivity
- Provides fast ROI
- Simplifies maintenance processes
- Enables the culture
- Establishes new platform



A Short Story in Virtual Reality





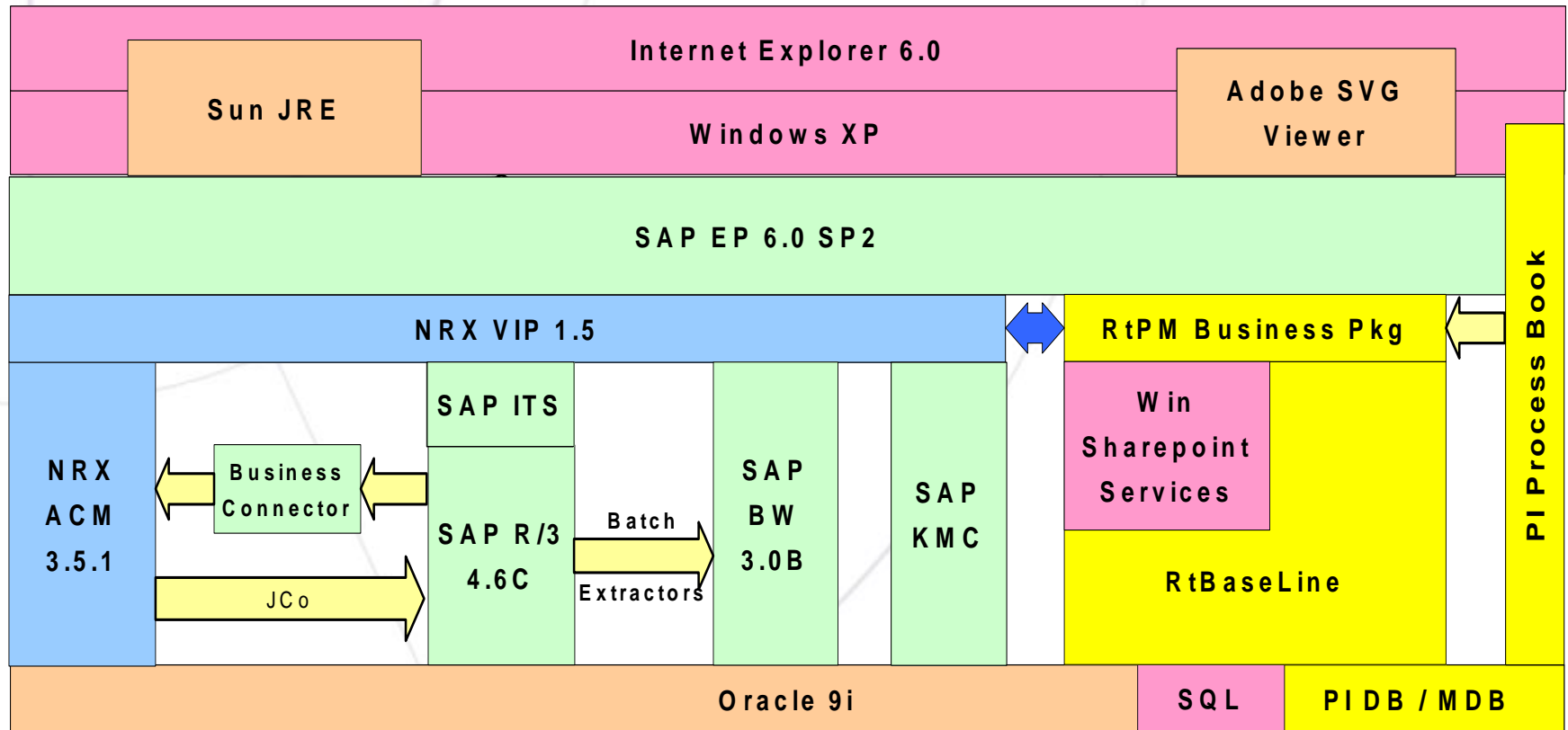
“Live” Demonstration of OSIsoft iViews at Conectiv Energy

Getting There

- SAP NetWeaver
- NRX ACM/VIP
- OSIsoft RtBaseLine



Building The Environment



The Value Proposition

- Who are the users?
 - Power Users
 - Casual Users
 - Management
- Deployment
- Licensing
- Extending Information
- Integration with PM

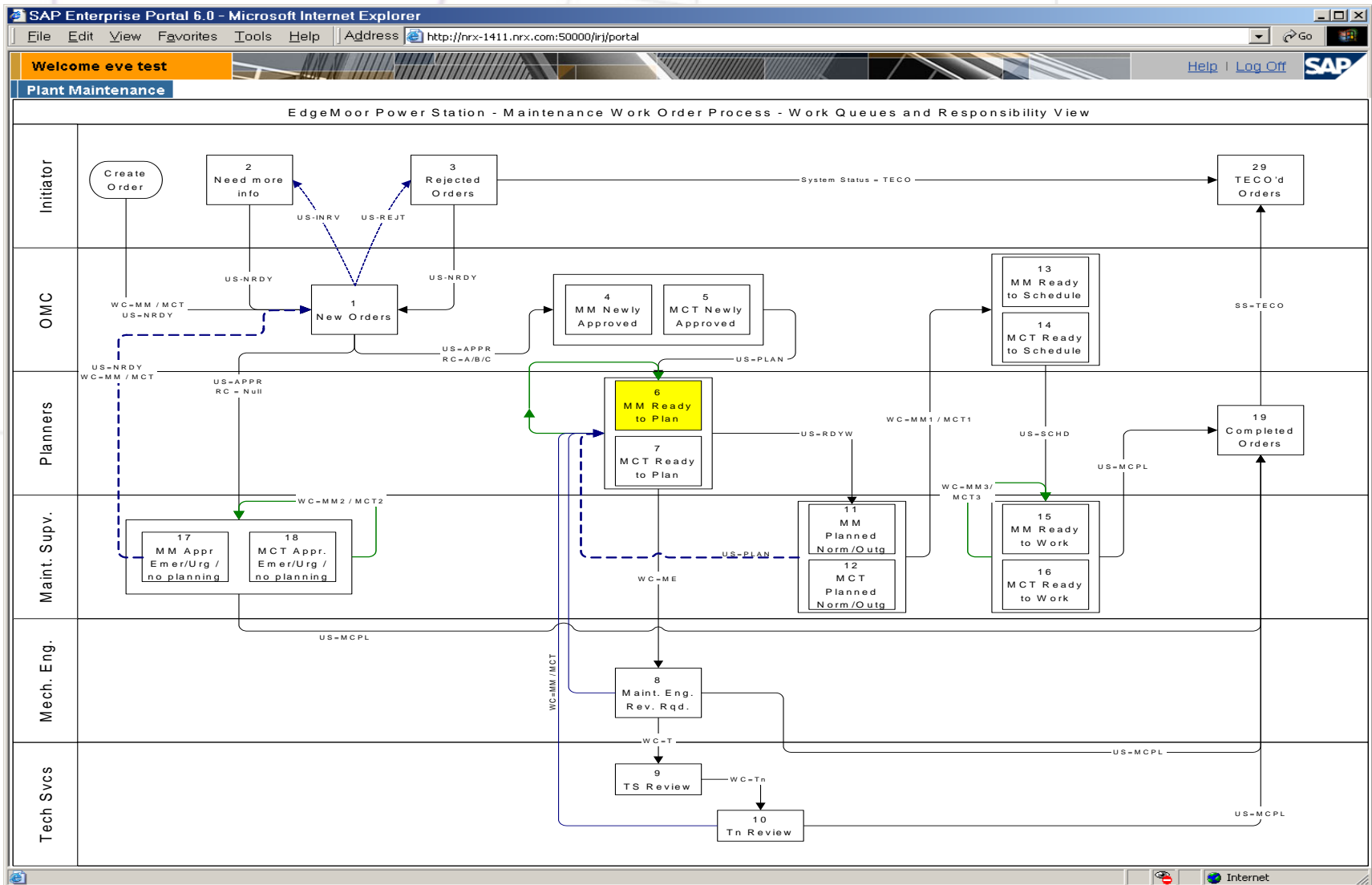


In the Works ...

- Expansion to other plants
- A different Value Proposition ...
- Process enablement
- Application integration
- Yielding worker productivity and accountability



Process Driven Work...



Application Integration

Welcome VIP Demo [Help](#) [Log Off](#) **SAP**

Plant Home | Plant Navigator | **Maintenance Functions** | Maintenance Reports

Process Notifications | Search Notifications | Process Work Orders | **Search Work Orders** | Notification | Work Order | Search Task Lists | Work Summary View

Work Order | History | Back | Forward

Work Order - 813332

[Save Work Order](#) [Exit](#)

* = Required Field

Order Type: PM01
 Status: Work Order Opened
 Functional Location: 0410-SC-U1-RP
 Equipment: 60000969
 Description: Head pressure dropping

Summary | **Planning** | **Work Packets**

[New](#) [Add](#) [Properties](#) [Remove](#) [Delete](#)

Name	Description	System
Work Package	Work Order 813332	System

[Add](#) [Remove](#) [View](#) [Modify](#) [Print](#)

[Add New Document...](#) [Add Book...](#) [Add Material List...](#) [Add Material List By Id...](#)

[Work Order 813332](#)
[Work Order 813332](#)
[Work Order 813332](#)

Adobe Reader - [Permits.pdf]

File Edit View Document Tools Window Help

Open Save a Copy Print Email Search Select Text 149%

conectiv Energy Generation

DANGER NO 49421 MECH
TAGGING PERMIT Page 01 of 01

Issue Date: 08/26/2004 Apparatus: "B" DEW BIN Work to be Started (Date): 08/26/2004
 Work to be Done: INSPECT BINS Est. Down Time:

Tagged For (Job Leader)	Requested By (Cog. Supv.)	Checked By (Job Leader)	Released By (Job Leader)
	R. PUGH	signature Date	signature Time Date

Permit Transfer (Job Leader)		Requested By (Cog. Supv.)	Checked By (Job Leader)	Released By (Job Leader)
To	From	signature	signature Date	signature Time Date
signature Date	signature Date			

RELEASE FOR TEST

Tag Numbers	Request Tag Removed (Job Leader)	Verify Tag Re-Applied (Job Leader)
	Date Time Signature	Date Time Signature

8.5x11in 1 of 1

Real-time Information Integration

Welcome vip demo

Help | Log Off

SAP

Purchasing/Admin Planner Collaboration **Engineer** LMO Technician Operator Management Stores MO

Home | Work ID - Notifications | Tech Info | **Diagnostics** | Reports

... Diagnostics > Work ID > Diagnostics > Home > Diagnostics

Back Forward

Plant Navigator

<Enter Id, Tag or Keyword> **View**

Tree: Plant 0410

- Plant 0410
 - Scrubber
 - SCRUBBER COMMON EQUIPMENT
 - U1 SCRUBBER
 - U1 ABSORBER-REACTION TANK
 - U1 CLASSIFIER FEED SYSTEM
 - U1 ID FAN SYSTEM
 - U1 OXIDATION AIR BLOWERS
 - U1 RECYCLE PUMPS
 - U1 RECYCLE PUMP
 - ENCLOSED GEAR DRIVE
 - SEAL, MECHANICAL
 - BEARING ASSEMBLY

Name	Id	Type
ENCLOSED GEAR DRIVE	70001032	Equipment
SEAL, MECHANICAL	69900582B	Equipment
BEARING ASSEMBLY	69900938B	Equipment
ABSORBER REACTION TK TO RE	UW-2206-1B	Equipment
RECYCLE PUMP MOTOR 2	EM-2200-1B	Equipment

Data Monitors by Asset

Equipment 60000969

Add Descriptor

	Units	Value
<input type="checkbox"/> Unit 1: Recycle Pump 1: Bearing 1 Temp	Deg C	112.
<input type="checkbox"/> Unit 1: Recycle Pump 1: Bearing 2 Temp	Deg C	115.
<input type="checkbox"/> Unit 1: Recycle Pump 1: Disch Pressure	psi	65.0
<input checked="" type="checkbox"/> Unit 1: Recycle Pump 1: Hdr Pressure	Deg C	13.6
<input checked="" type="checkbox"/> Unit 1: Recycle Pump 1: Motor Current	Amps	67.5
<input type="checkbox"/> Unit 1: Recycle Pump 1: Motor thermal capacity	N/A	0.923
<input type="checkbox"/> Unit 1: Recycle Pump 1: Vac Pressure	psi	21.5

Trend

Start: ~1h End: *

Apply

Unit 1: Recycle Pump 1: Hdr Pressure Unit 1: Recycle Pump 2: Hdr Pressure

Process Graphic for Asset

Bearing Temp 69.5 54.8

Vacuum 2.1 psi

Motor Current 54.1

Thermal Capacity 26.0%

Winding Temp 59.8

Discharge 67.3 psi

Header 19.1 psi

Datapoints or views by equip

Plot history and save

Key Points

- Portal Strategy / Field of Dreams
- Stakeholder involvement
- Imagination
- NGNG
- Expect potholes
- It is easier than it looks
- Value – enabling people





***Thank You
? Questions ?***

For More Information:
george.muller@conectiv.com