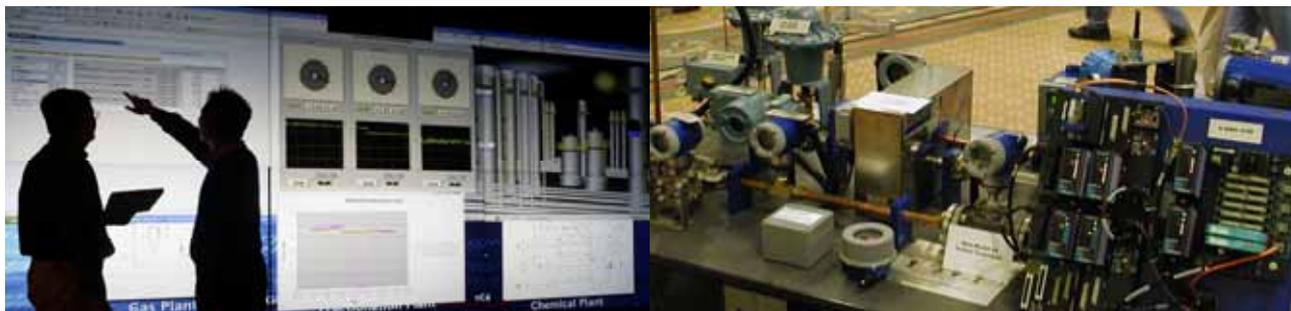


**Invensys Process Systems User Group
Dallas, December 2006**

Process Control



The vision¹

The reality²

Around 850 attended the Invensys Process Systems User Group in Dallas. This is both a sizeable community and a ‘broad church.’ Invensys, like many vendors, was formed by the acquisition of a number of companies – Foxboro, SimSci, Esscor and Wonderware – all of which have their own, often overlapping fields of action. These units are maintained as separate ‘brands’ within the organization. Moving a century (Foxboro was established in 1908) of legacy technology into the digital age is not easy and neither is combining multiple high tech companies. This is reflected by a confusing if not confused conference agenda with multiple simultaneous sessions – a situation that also reflects the process industry’s own long history and conservatism.

Today, a refinery might have 150,000 points and 25 outputs per point making for a huge amount of data³ – process has become I/O and data intensive and decision support is increasingly important. In the near future, proliferating low cost sensors may provide more information on the nature and properties of product flowing through the process. Here Invensys’ **InFusion** product is both a vehicle for data and process integration and a decision support system closing the gap between process, enterprise resource planning (ERP) and maintenance, repair and operations (MRO) systems. One client described InFusion as ‘a working version of the integrated asset management systems that were tried and failed in the 1990s.’ Data collection will increasingly rely on wireless – which is perceived as a game changer. Here, Invensys has teamed with wireless specialists [Apprion](#) to offer multi-mode connectivity across a plant. This is bringing some interesting security challenges to process IT – which are addressed by a hardware/software ‘**Isolation Station**.’

The vision of computer control of the whole of a plant is still far from reality. Today’s control loops are highly specialized hardware/software bundles that operate at a relatively low level – controlling a small piece of the action. The vision of a computer controlling a whole plant is still some way away, although the role of the simulator is extending from operator training; a presentation on Shell Nigeria’s \$3.6 billion Bonga development shows how the **operator training simulator**’s role is expanding to project design and equipment checkout.

Targa Resources reported on what is believed to be the first oil country deployment of **SmartSignal**—a data mining-based alarm system developed by the University of Chicago in the wake of the Three Mile Island incident. TransCanada pipeline shows how **Avantis**’ ‘management operating system’ is driving process improvement.

Our main take-home from the Invensys meet is that the closer you look at the ‘digital oilfield of the future,’ the harder it gets! There is a lot of symmetry across the subsurface/facilities boundary with some marketing ‘retrofit’ of point solutions applied here and there. In this context, [ProdML](#) is full of promise, although evangelizing ProdML in the process community is a challenge.

¹ InFusion on [Activu](#) wall – image © Invensys.

² Foxboro [Model 84 vortex flowmeter](#) and [I/A Series System](#) controller.

³ According to Chevron’s Don Paul, a refinery produces 1 TB/day – SPE Digital Security 2005 (TW0528_3).

Highlights

[Oil and gas upstream session](#)

[Wireless](#)

[Control room IT security](#)

[Targa Resources – Similarity-based modeling](#)

[Petro-Canada – Avantis as ‘management operating system’](#)

[Shell Nigeria – Bonga OTS⁴](#)

Contents

TW0623_1	Introduction – Chris Lynden, Don Clark, Invensys Process Systems.....	3
TW0623_2	Invensys Process Systems Plenary Session	4
0623_2.1	<i>Ken Brown – Acting CEO.....</i>	4
0623_2.2	<i>Who measures the business? – Peter Martin.....</i>	4
0623_2.3	<i>Process/ERP integration – John Snodgrass, Chemtura Corp.</i>	5
0623_2.4	<i>InFusion – Grant Le Sueur.....</i>	5
TW0623_3	Roll-out of Cutler Technology’s ADMC	6
TW0623_4	Wireless – Hesh Kagan.....	6
TW0623_5	Creating a secure control room – Clayton Coleman	8
TW0623_6	Oil and gas/Upstream sessions.....	8
0623_6.1	<i>State of Pipeline industry – Alan Jacob, president Energy Solutions.....</i>	8
0623_6.2	<i>The Integrated Asset Management System – Shaughn Wright</i>	9
0623_6.3	<i>SIM4ME and PipePhase 9.2 – Jim Browne.....</i>	10
0623_6.4	<i>ProdML – Stan DeVries.</i>	10
TW0623_7	Client Presentations	10
0623_7.1	<i>SmartSignal ‘similarity-based modeling’ – Clay Nobel, Targa Resources</i>	10
0623_7.2	<i>Avantis management system – Victor Dix-Cooper, TransCanada Corp.</i>	11
0623_7.3	<i>Shell Bonga Operator Training Simulator – Greg McKim.....</i>	11
0623_7.4	<i>Integration of H/CAMS and PRO/II – Nancy Delhommer, Haverly Systems</i>	12
TW0623_8	Invensys Product Presentations.....	12
0623_8.1	<i>InFusion, ‘the future of SCADA’ – Lionel Chmielewsky.....</i>	12
TW0623_9	InFusion SCADA/GMS for Williams Power Co.	12
0623_9.1	<i>SimSci Process Engineering Suite – Tobias Scheele</i>	12
TW0623_10	Exhibitors	13
0623_10.1	<i>Activu – large screen displays showcase InFusion.....</i>	13
0623_10.2	<i>US Department of Homeland Security.....</i>	13
0623_10.3	<i>nTag conference card exchange and e-agenda – George Eberstadt, nTag</i>	14
TW0623_11	Technology Watch subscription information	15
TW0623_12	Appendix – Cutler Technology ADMC (Oil IT Journal, January 2007).....	16

Technology Watch subscription information

This report has been produced as part of The Data Room’s Technology Watch reporting service. For more on this subscription-based service please visit the [Technology Watch home page](#) or email tw@oilit.com.

⁴ Operator Training System.