

AVEVA Introduces AVEVA Instrumentation

By Russ Novak

Summary

AVEVA, a leading supplier of engineering software to the plant, power, and marine industries, has grown continually over four decades. A recent acquisition has enabled the company to speed development and introduction of a new product, AVEVA Instrumentation.

The AVEVA Instrumentation suite provides a broad range of benefits for both the project engineering and operations stakeholders. There is a need for efficient and cost-effective engineering tools that can bridge the handover gap between project and operational phases of an asset's lifecycle. This issue is becoming increasingly important as an enabler for efficient Asset Lifecycle Management for both the EPC and owner/operator.

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The AVEVA Instrumentation suite provides a broad range of benefits for both project engineering and operations stakeholders. These include increased productivity, auto-generated deliverables, improved design quality, and rapid payback.

AVEVA Instrumentation is a significant product introduction for several reasons. Not only can it be used within the traditional EPC user environment, but also by owner/operators. What's more, this software suite for instrumentation and control engineering can be used as a stand-alone product, or integrated with other AVEVA applications, including AVEVA PDMS 3D-design data.

Efficient and cost-effective engineering tools, such as AVEVA Instrumentation, can bridge the handover gap between the project and operational phases of an asset's lifecycle. This is becoming increasingly important as an enabler for efficient Asset Lifecycle Management for both the EPC and owner/operator (see *ARC Strategies, September 2009, Asset Performance Management – Optimizing Performance of Operating Assets*).

AVEVA: A World Leader in Engineering Software

AVEVA is a leading engineering software provider to the plant, power, and marine industries. Through 40 years of innovation, AVEVA has harnessed the power of information technology and helped transform industrial workflows.



In demanding industries, AVEVA's integrated engineering software now drives every phase of a project's engineering workflow: initial design and specification, 3D engineering layout, procurement, materials management and project control. AVEVA's software combines technical excellence with data integrity – all within an extremely flexible applications framework.

Introduction of AVEVA Instrumentation

AVEVA is formally introducing AVEVA Instrumentation, an important addition to the AVEVA Plant portfolio, at ISA EXPO 2009 in Houston, Texas, October 6th-8th. AVEVA Instrumentation is a feature-rich suite of integrated applications that can be used to efficiently specify, design and maintain plant instrumentation and control systems. AVEVA Instrumentation is suited to the needs of both plant engineering, procurement and construction (EPC) contractors and of owner/operators (OOs), providing a complete lifecycle solution. It can be used as an effective standalone product, or integrated with other AVEVA applications.

The AVEVA Instrumentation suite is comprised of three integrated modules that share a common multi-user database for both the design and as-built data phases.

The **Instrument Engineer** module enables instrument datasheet creation, document management, and process data input that can be linked to user-defined entry, thus providing a full range of functionality for all project workflows associated with instrumentation engineering.

The **Instrument Designer** module enables automatic generation of instrumentation CAD drawings from the AVEVA multi-user project or plant database. Functionalities include drawing management, parametric creation of wiring drawings, document revision and batch printing capability. Also available is a Hookup feature that enables rapid installation detail generation and uses a user-definable component catalog.

The third module, **Wiring Manager**, provides management of workflows relating to detail cable, wiring and termination design. The module is comprised of three sets of applications that, together, allow generation of work packs (termination diagrams, cable schedules, BOM, etc.) without the need for any CAD product. If the owner/operator requires CAD deliverables, AVEVA applications can also automatically create AutoCAD termination drawings.

AVEVA Instrumentation overcomes many of the challenges faced from continual change in the engineering design and operation of plant facilities, enabling companies to realize substantial business benefits. These include increased engineering productivity through rules-based automation of system design (enabling “right first time” design), and increased operations productivity through the ability to ensure high-quality documentation. Finally, rapid payback is achieved through minimal training requirements, enabling users to be immediately productive.

Key Acquisition

AVEVA Instrumentation is the result of the earlier acquisition of iDesignOffice Pty Ltd, a technology company based in Melbourne, Australia. This acquisition has brought best-in-class instrumentation engineering technology to AVEVA's portfolio, extending and strengthening it in a key area to consolidate AVEVA's leading position in plant engineering software for both EPC contractors and owner/operators.

Successful Early Adopters

A number of owner/operator firms have already successfully utilized AVEVA Instrumentation technology in projects in the oil & gas and petrochemical industries. These include both onshore and offshore facilities in Australia, Middle East, Asia and the North Sea.

Additionally, AMEC, a leading international engineering and project management company, has confirmed its adoption of AVEVA Instrumentation for instrumentation and control (I&C) design and engineering for its mining and metals business in Canada.

Sales Channel

ECE Design, with headquarters in Chicago, Illinois, is the North American reseller for AVEVA Instrumentation. Customers can buy directly from AVEVA or through ECE Design in North America.

Conclusion

AVEVA Instrumentation targets not only the design-build phase, but also the needs of owner/operators with a cost-effective and easy to use application suite that provides a lifecycle solution. Traditionally, engineering and design (E&D) tools were developed for the engineering and design market,

not for the operations domain. As the robustness of engineering tools increased, so did the complexity of the software. Although this was acceptable for the frequent engineering user, it became an obstacle for occasional users, such as operations staff whose workflows were primarily focused on operations and maintenance (O&M), rather than E&D.

What is particularly interesting is that the core technology upon which AVEVA Instrumentation is based has already established a successful project history with a number of major owner/operators, such as Exxon-Mobil, Shell, BP, Origin Energy, QNP, BHP Billiton, and Alcoa, among others.

Efficient and cost-effective engineering tools that can bridge the handover gap between project and operational phases of an asset's lifecycle are becoming increasingly important as an enabler for efficient Asset Lifecycle Management for both the EPC and owner/operator.

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