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Omega Simulation Releases Enhanced Version of OmegaLand Integrated Dynamic Simulation Environment **- Meeting customers' evolving simulation needs -**

Omega Simulation Co., Ltd., a subsidiary of Yokogawa Electric Corporation, announces the release of OmegaLand V3.4, an enhanced version of the OmegaLand integrated dynamic simulation environment. This core element of Omega Simulation's plant training simulator provides realistic simulation, and an engineering environment that can swiftly adapt to customers' varied simulation needs.

Development Background

In line with advances in digital technology, companies are looking to rapidly streamline and improve the efficiency of plant operations by making greater use of digital data and linking systems. Given such trends and the need for enhanced system connectivity and the streamlined modeling of ever more complex plants, interest is growing in the field of plant dynamic simulation, typified by the use of tools such as digital twins. In addition, the proactive introduction of digital technology has given rise to the need for dynamic simulators that can be used not just for training, but also to achieve more efficient and stable plant operations by leveraging simulation technology to investigate and analyze process behaviors to improve the control of their plant facilities, as well as provide operational assistance during actual operations.

Enhancements

1. Quick construction of simulation environments to swiftly meet increasingly complex needs

Virtual reality (VR) simulation environments that use 3D data are highly realistic, but building them requires a great deal of engineering time and effort. By using panoramic images captured with a 360-degree camera, OmegaLand V3.4 is able to significantly reduce the time and effort needed to create such environments, and the end result is highly realistic. With its enhanced graphic design and modelling-related functions, engineering efficiency is also improved. In increasingly complex plants, these functions can be used to quickly build a simulator that flexibly and quickly meet the varied needs of operators, engineers, and other personnel as well as requirements in such areas as operational assistance and process analysis.

2. Enhanced connectivity through the support of different operating systems

By utilizing plant control, equipment, production management, and other kinds of data, and linking with other systems, simulators are able to build environments that are very close approximations of actual environments. With its compatibility with devices and applications running under both 64- and 32-bit operating systems, OmegaLand V3.4 is able to build high-precision simulation environments even in cases where there is great complexity in the linkage of plant systems.

Major Target Markets

Oil, petrochemicals, chemicals, gas, power, waterworks

Applications

- Operational training for manufacturing plants
- Process review and analysis
- Instrumentation system verification and review
- Operational assistance for plants
- Engineer training

For more information

http://www.omegasim.co.jp/contents_e/product/ol/

About Omega Simulation Co., Ltd.

Omega Simulation Co., Ltd. was established in April 1997, bringing together Yokogawa's plant control system know-how and Mitsui Chemicals' process simulation technology. Yokogawa has an 85.1% stake in this company, with the remainder held by Mitsui Chemicals. The company is engaged in the development, sale, and maintenance of training simulators and software solutions for plant analysis, operation, and control.

About Yokogawa

Founded in 1915, Yokogawa engages in broad-ranging activities in the areas of measurement, control, and information. The industrial automation business provides vital products, services, and solutions to a diverse range of process industries including oil, chemicals, natural gas, power, iron and steel, and pulp and paper. With the life innovation business, the company aims to radically improve productivity across the pharmaceutical and food industry value chains. The test & measurement, aviation, and other businesses continue to provide essential instruments and equipment with industry-leading precision and reliability. Yokogawa co-innovates with its customers through a global network of 114 companies spanning 62 countries, generating US\$3.7 billion in sales in FY2019. For more information, please visit www.yokogawa.com.

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