

## PRESS RELEASE

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## **Yokogawa Releases Advanced Efficiency Improvement Solution Exapilot R2.20 Offers Advanced Alarm Functional Block**

Tokyo, Japan – Yokogawa Electric Corporation announced the release of Exapilot Release 2.20 (R2.20), an upgrade to its well-received Exapilot Operation Efficiency Improvement solution. Exapilot R2.20 powerfully aids a control system in automating those areas of non-steady-state operations that have been unavoidably performed manually thus posing hindrances to boosting production efficiency.

This upgrade offers optional *Advanced Alarm Functional Block*, enabling early signs of a problem to be detected and proper counteractions to be taken automatically before it appears as an alarm detected by the control system. Idemitsu Kosan Co. Ltd., a Japanese major oil refinery company, has already decided to employ Exapilot R2.20 as its plant operation support system and Exapilot R2.20 will be adopted at all of its oil refinery sites and connected to the distributed control systems (DCSs) of any DCS supplier.

### **Background of Development**

In many industrial plants such as oil refinery, petrochemical, chemical, iron and steel, paper and pulp, and power plants, significant areas of operation tasks in a non-steady state continue to evade automation and pose tight bottlenecks to raising production efficiency. Such areas include start-ups, shutdowns, changes to the load or grade, and counteractions against incidents, and rely heavily on the expertise of expert operators, making it difficult to automate them.

Exapilot, which made its debut in 1998, enables expert plant professionals to independently create operation support sequences comprised of a mixture of automatic and manual operations effortlessly via a computer screen. At runtime, the sequences thus created will display sequential guidance whenever a manual action is required, to assist in efficient operations. Exapilot can be adopted immediately without need of modification to the existing control systems and instrumentation.

Recently, increasingly many DCS users desire the capability of their automated systems to detect early signs of abnormalities and to incorporate the operation knowledge of the required counteractions that only expert operators possess. The background to this need is that it is increasingly difficult for each enterprise to retain expertise over a prolonged period because of a decrease in the number of proficient operators. Exapilot helps formulate the expertise and convert it into software to aid in operation support, ensuring safe and stable plant operation.

## **Product Features**

### **1. Advanced alarm functional block**

Optional functional block to detect various signs of abnormalities at an early stage that are difficult for usual sensors to detect, such as abnormalities in the quantity of heat or mass balance, slow-paced process changes, and equipment failures, and the capability to automatically perform the appropriate counteractions have been added. Current Exapilot users who have concluded a maintenance contract can add this option.

### **2. Simple adoption**

Exapilot can be adopted immediately without modification of plant facilities since Exapilot applications can be built in line with the progress of the automation of plant equipment and facilities. For those who are using Yokogawa's CENTUM CS 3000 integrated production control system or CENTUM CS 1000 production control system as the DCS, no additional equipment is needed since Exapilot can be installed in the computers used as human interfaces.

### **3. Simplified system configuration**

Exapilot applications do not require programming but are written in a flow chart form, thereby negating the need of special software knowledge. Since plant professionals can configure automation sequences independently unlike conventional methods in which control system engineers at each plant typically built up applications in a DCS, the development and maintenance man-hours can be sharply reduced. The configured applications are expressed in an easily understood format, enabling transfer of valuable operation expertise over extended periods as well as to multiple plants.

## **About Yokogawa**

Yokogawa's global network of 18 manufacturing facilities, 67 affiliate companies, and over 200 sales and engineering offices span 28 countries. Since its founding in 1915, the US\$3 billion company has been engaged in cutting-edge research and innovation, securing over 4,500 patents and registrations, including the world's first DCS and digital flow and pressure measurement sensor. Test and measurement systems, industrial automation, and information services are the core businesses of Yokogawa. For more information about Yokogawa Electric Corporation, please visit our website at [www.yokogawa.com](http://www.yokogawa.com).