



spotlight

news

### ICS Triplex ISaGRAF Wins Automation Prize From Mesures Magazine



## ISaGRAF 5.0

ICS Triplex ISaGRAF is delighted to have received its third industry award for ISaGRAF 5.0. This latest accolade was awarded by *Mesures Magazine*, a well-known publication in France.

Awards are presented annually by *Mesures Magazine* in a variety of categories for innovative products considered to have significant industry impact. A representative from ICS Triplex ISaGRAF accepted the award at a reception held in Paris.

### Dr. Robert Brennan discusses IEC 61499 standard and ISaGRAF 5.0 at INDIN'06



Dr. Robert W. Brennan from the Schulich School of Engineering at the University of Alberta presented a white paper on the IEC 61499 distributed intelligent control standard and ISaGRAF 5.0 at the 4th International IEEE Conference on Industrial Informatics (INDIN) in Singapore.

[Click here for the full white paper](#)

success stories

### Integration of Safety Functions in ISaGRAF Enhanced for Non-Critical Applications

## KIBERNETIKA

**System integrator:** Kibernetika

**Installation site:** Power station " Ruse" – Bulgaria

**Installation period:** 2005/2006

**Purpose of the project:** Upgrade of existing ISaGRAF Enhanced v.2.4. Application to integrate safety functions concerning the gas burner management system (GBMS).

**Description of the project:** The existing application of ISaGRAF Enhanced 2.4 was realized in 2002 for total process control of 220 t/h steam generation boiler burning coal and heavy oil. The system is based on one QNX target platform based on industrial PC, 2 operators stations with all SCADA functions, distributed IO modules from WAGO along Profibus DP. No manual control remained after the implementation.

The upgrade of the above installation was aimed to integrate into the existing control and HMI software the gas burner management system which was programmed in Siemens S7 300F certified by TUV for AK6 applications. The solution of the problem came smoothly by connecting the S7 300F on the Profibus DP (Woodhead SST card being the master). From this point on the existing ISaGRAF Enhanced application was easily extended with new variables, HMI controls, trends and alarms to satisfy the requirements of the customer.

**Signals:** Approximately 300 AI, 400 DI, 200 DO, 6 Profibus DP slaves.

**Results:** We achieved a common framework to solve safety problems with PC-based systems, which are often criticized to lack such functions. The solution is for non-critical applications as there is no redundancy. One disadvantage is that the programming of the fail-safe controller is done in another environment but there exists hardware for such applications, which can be programmed with ISaGRAF– ICS Triplex hardware.

upcoming events

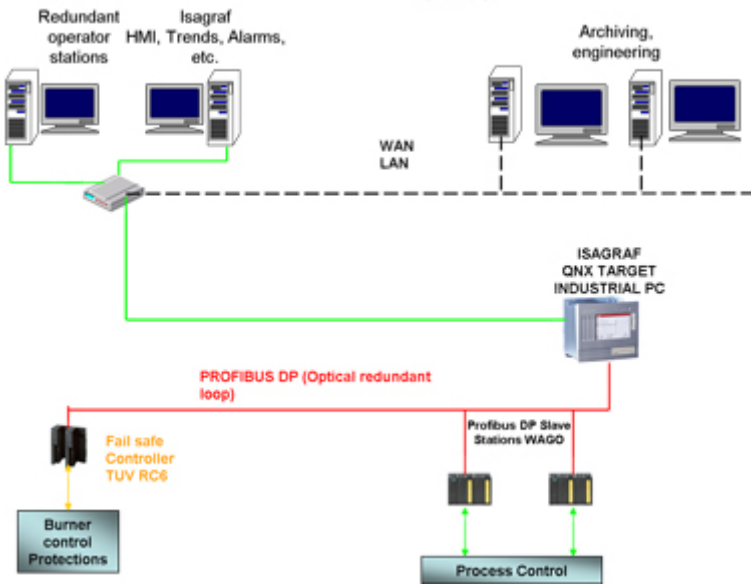
### Fiord Exhibiting at Automation 2006 in Saint-Petersburg, Russia (Nov. 14-17, 2006)

Fiord, master distributor of ICS Triplex ISaGRAF Inc. in Russia, will be in **booth A5.2**. Automation 2006 is an exhibition on industrial automation technology.



Fiord will present ISaGRAF v.5.0 with their own system enhancements of ISaGRAF 5 Target for Linux, QNX4.25, QNX6, WinCE, WinXP, MiniOS7. Detailed descriptions of these enhancements will be featured in the next ICS Triplex ISaGRAF newsletter.

Figure 1. Structure of the Control System Boiler No5 Power Station Ruse



**ICS Triplex ISaGRAF Exhibiting at SCS Automation & Control 2006 in Paris (Dec. 5-8, 2006)**

ICS Triplex ISaGRAF will be in **booth K19** at SCS Automation & Control 2006.



Email [sales@icstriplex.ca](mailto:sales@icstriplex.ca) to receive an invitation card for free registration to the show or to schedule a meeting with us during the show.

extras

**ICS Triplex ISaGRAF Promotes ISaGRAF 5.0 and IEC 61499 in Asia**

Stefan Mizera, ISaGRAF Sales Manager for the Americas / Pacific Rim, recently hosted various sales and marketing seminars, and an ISaGRAF 5.0 training session in Japan, South Korea, and Taiwan. With the help of key partners in the area, this will help increase visibility for the IEC 61499 standard and the wealth of benefits it can bring.



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tech feature

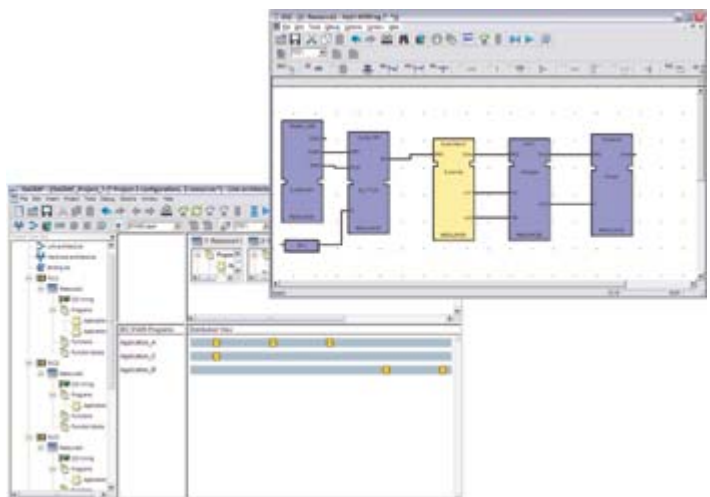
**Tech Note #3 - IEC 61499 Resource Model**

**Overview**

A Resource Model represents parts included in a measurement and control resource. Many function blocks are connected together with a data/event interface and are part of a resource. The device is self-contained hardware capable of executing control loops programmed in one or multiple resources.

A resource is considered to be a functional unit contained in a device. The functions of a resource are to accept inputs from the process interface (IO driver) or the communication interface (Shared memory, communication network), process the data, and return outputs to these interfaces.

An automation and process control application runs in a resource or splits the load across multiple resources to use the special features of each resource.



the ISaGRAF toolset.

An application may consist of one or more control loops where the input sampling is performed in one function block, control processing is performed in a second function block, and output conversion is performed in a third function block.

This distributed application may run function blocks within one resource or across multiple resources. These resources are part of one device or multiple devices. In ISaGRAF, each program can be a distributed application. The figure above shows distributed applications within a resource. This is the Resource Model displayed by

A distributed application exchanges data across the communication interface. The ISaGRAF elements use the communication interface transparently. Building and compiling the application generates all required link parameters. Each distributed element of an application is connected to the others across the communication interface. When building an ISaGRAF application, the distributed application generator automatically links

together these distributed elements.

The figure above displays function blocks, links between function blocks, and service interface function blocks. The Publish and Subscribe function blocks are service interface function blocks. These interface the application with the communication interface and the process interface. All other function blocks are basic, composite custom build, or predefined function blocks from the library. From the Device Model viewer, clicking on an application pops up the Resource Model view.

[Click to read the full tech note](#) (.pdf)

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