



spotlight

featured partner



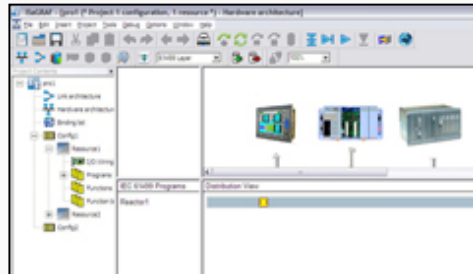
## Introducing ISaGRAF 5.0 Service Pack 1

ICS Triplex ISaGRAF is developing a variety of new features for ISaGRAF 5.0. These updates will be made available throughout the year through the release of several service packs, the first of which will be released on March 24th.

ISaGRAF 5.0 Service Pack 1 offers the following enhancements:

- The Workbench now supports third party licenses on library POU's, meaning ISaGRAF users can password protect their intellectual property
- Enhanced IEC 61131 compiler and import/export of PFX files
- Enhanced SFC child mechanism - SFC child now acts as a function block, making parameter passing possible
- Enhanced IO wiring tool - change of IO boards order in the IO wiring window is now possible

- New targets (WIN32) support 64-bit data types such as LINT, ULINT, LWORD, and LREAL
- ISaGRAF includes Hibeam 1.3 which supports the many IEC61131 data types and runs with the latest java engine (JRE)
- New enhanced OPC DA server on the distribution CD, including speed improvement, multi-resources connection, reconnection enhancement, RS-485 support and many more



### Learn about IEC 61499

• This issue: *The IEC 61499 Device Model*

This is the 2nd of 9 tech notes to be published

More at [www.isagraf.com](http://www.isagraf.com)



Your partner for interference-free measurement

The company ADDI-DATA, located in the German Federal State Baden Württemberg, develops and sells Embedded solutions and PC measurement boards for industrial measurement and automation.

Product range includes:

- Embedded systems
- Ethernet I/O modules
- PC measurement boards: digital I/O, 24V, multifunction counter boards, analog and multifunction boards, boards for the acquisition of transducers, strain gauges and Pt100 /thermocouples, 1- to 8-port communication boards, motion control boards.

Contact:

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## Our Commitment to Long-Term Support

In keeping with our commitment to support the evolution of our entire product line, ICS Triplex ISaGRAF announces the release of ISaGRAF 3.55. This particular version of the popular ISaGRAF software offers a variety of enhancements over v3.51 including:

- Support for thirteen languages - English, French, German, Italian, Spanish, Portuguese, Russian, Polish, Hungarian, Korean, Japanese, Simplified Chinese and Traditional Chinese
- Encryption of library projects containing proprietary functions or function blocks - this feature allows users to take advantage of the ISaGRAF licensing tools to license and resell their own custom library objects
- COM1 to COM9 available for communication with target
- New enhanced OPC DA server included on the distribution CD
- Enhanced monitoring Tool now supports hardware license keys

ISaGRAF v3.5x is also fully compatible with version 3.3x meaning the ISaGRAF v3.55 Workbench can be used to program an ISaGRAF 3.3x target.

### extras

Please download the new ISaGRAF 3 brochure:



### success stories

Get an IEC61499-compliant PLC platform



ICS Triplex ISaGRAF partner, ADDI-DATA has developed a new soft PLC platform. Designed for use by OEM customers in machine control for data acquisition and measurement applications, the MSX-Box + ISaGRAF soft PLC is particularly intended for PLC users who want to benefit from the IEC 61499 or 61131 standard programming languages with the robust program ISaGRAF.

Generate the program you need for your distributed industrial process, measurement and control application with ISaGRAF. Then upload your program to the MSX-Box, which executes it automatically.

#### Signal acquisition with the Ethernet-ready MSX-Box

- Acquisition of:
  - up to 192 digital I/O, 24V, isolated
  - up to 96 analog I/O, 16-bit, isolated
  - a combination of both digital and analog
- Cabling through shielded round cable to a terminal screw panel with LEDs for digital signals or transorb diodes for analog signals.

#### Your benefits:

- Simplified synchronization process between several MSX-Boxes and other devices
- Accessible to automation engineers thanks to object-oriented programming
- Flexible I/O configuration

#### Main MSX-Box features:

- Compact system for decentral measurement and regulation tasks
- 64-bit MIPS processor
- Open and scalable:
  - MSX-Box 500: 3 free PCI slots for data acquisition boards
  - MSX-Box 800: 6 free PCI slots for data acquisition boards
- Flexible I/O configuration through PCI boards:
  - APCI-1500: 32 digital I/O, 24 V, isolated
  - APCI-3120-16-8: 16 single-ended or 8 differential analog inputs, 16-bit, 8 analog outputs, 14-bit
- Ethernet-ready (TCP/IP)
- CAN interface
- Fast application development with ISaGRAF, IEC 61499 and IEC 61131 Workbench
- DIN-rail mounting
- Main unit 220V, 24V, 12V
- Safety for your investment, long-term availability

For more information about the Soft PLC solution based on MSX-Box and ISaGRAF 5.0, please contact ADDI-DATA directly:

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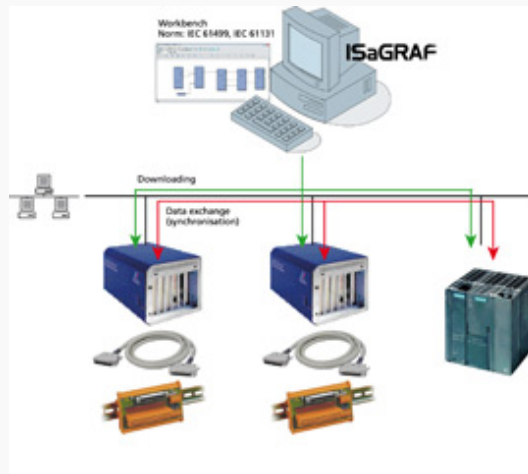
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ICS Triplex ISaGRAF is a proud member of O3NEIDA

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## Maessa Telecontrol



Maessa Telecontrol develops complete embedded systems for telecontrol of electrical power plants. The company is one of the principle providers of RTUs (Remote Terminal Units) for ENDESA in Spain and for EDENOR in Argentina. Maessa has been successfully using ISaGRAF for over four years. During this time, the ISaGRAF technology has been used in the development of two separate product features:



**1. The automation of voltage regulation in HV transformers in electrical distribution substations.** Every regulator is adapted to each transformer by the usage of parametrization in the Workbench. It has been developed combining C-Function Blocks and Function Block charts. The program includes a scheduler module in order to dynamically adjust the regulator parameters in function of the time and the day of the week.

**2. The start and stop sequence for generator engines in hydraulic power plants located in the Pyrenees.** It has been programmed using the Sequential Function Chart programming language and is parametrized for each power plant by using the Workbench. Specific to this application is the use of the real time debugger which has proved to be very helpful.



For more information on the use of ISaGRAF in Maessa Telecontrol products, please consult [www.maessa.com](http://www.maessa.com) or email [sat\\_telecontrol@maessa.com](mailto:sat_telecontrol@maessa.com)

## ICS Triplex ISaGRAF Partner, Control Ware Inc. Releases operatorMANAGER II Controller



Control Ware Inc., has been working with ISaGRAF since 1989 and is pleased to announce the latest release of the **operatorMANAGER II** controller. The **operatorMANAGER II** comes preloaded with **ISaGRAF version 4.5** and a variety of SCADA

and HMI software options.

The **operatorMANAGER II** is an industrial operator user interface processor and PC computer. Either Microsoft Windows or Linux operating system is included. Using ISaGRAF 4 provides a compact industrial field mountable device: choose from a wide selection of IO modules, and LCD display panels!

Designed for rugged or harsh environments the **operatorMANAGER II** has low power consumption.

For detailed information, please visit Control Ware Inc. at <http://www.controlwareinc.com>, or contact a sales representative at (713) 667-2430.



tech feature

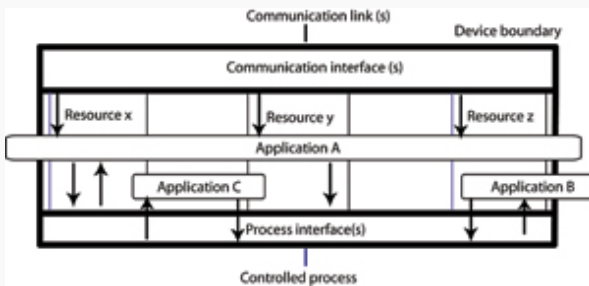


## Tech Note #2 - IEC 61499 Device Model

A Device Model represents parts included in a measurement and control device. Figure 1 shows these parts of a measurement and control device. Many resources (soft PLC) are connected with a communication interface and are part of a device. The device is a self-contained hardware capable of executing a control loop. It is also a controller having a processor, memory devices and may also contain a communication interface when used in a distributed application. The devices are PLCs solving the control logic and these can be seen in intelligent actuators such as valves or in sensors such as flow meters. Each device may integrate one or more 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.



An application may consist of one or more control loops where the input sampling is performed in one resource, control processing is performed in a second resource, and output conversion is performed in a third resource. This distributed application may run resources within one device or across multiple devices.

Figure 1: IEC 61499 Device Model

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

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