

ARC Informatique (France) was registered as the independent company in 1981. In 1985 has released the first version SCADA PcVue DOS, in 1992 - PcVue OS2/Windows, in 2000 - PcVue V.7 and WebVue, in 2006 - PcVue V.8. ARC Informatique is at the forefront of SCADA/HMI software development in Europe. ARC Informatique's innovative solutions accomplish supervision and control of industrial processes, services and facilities.



PcVue is a new generation of SCADA software. It is characterized by modern ergonomics and by tools based on object technology to reduce and optimize application development. Developed by ARC Informatique using the latest tools from Microsoft (Visual C#, MFC, ActiveX and .NET), it incorporates Microsoft-developed user interface standards and the security features of Windows 2000 and XP, supports WEB-technologies. Over 35,000 licensed copies of products are installed world-wide. PcVue is completely cyrillic product.



NEWRON SYSTEM (France) was founded in 1993. The main direction of company activity is software engineering for LonWorks and BACnet networks allowing essentially to reduce time and expenses for development, creation and service of integrated systems.

LonWorks software is a complete toolkit for designing, integration and service of Lon networks. NL220 is the network installation and configuration tool for LNS networks; NLFacilities is the graphical installation and reconfiguration tool for working LNS spaces; NLOPC is LNS OPC server; NLUtil is the application for the analysis, testing and customization of LON networks; and other software.

BACnet software: SE-OPC is BACnet OPC server; SE-BWebServ is BACnet Web services; SE-OPC2B is OPC-client with a conversion function of data to BACnet objects; SE-BSDKDB is BACnet application program interface for Windows and Linux.



ICS Triplex Inc. is the worldwide leader on Trusted-systems market, it has over 40 years of experience in designing, installing and maintaining fault tolerant systems. ICS Triplex Corporation is subdivision of Rockwell Automation Company. Hardware-software complexes are used in oil and gas industry, chemical, airspace branches, in power. The technology of controllers programming ISaGRAF plays a key role in construction of monitoring and control systems. ICS Triplex ISaGRAF Inc. (Montreal, Canada) is engaged in development and support of ISaGRAF technology.



ISaGRAF is a scaled programming technology of the controllers allowing to create both applications for standalone controllers and the distributed applications for the several controllers exchanging data on a network. ISaGRAF is completely Cyrillic product. ISaGRAF is a floppy solution for integration of production of partners and, that is the most important, corresponds to standard IEC 61499. Uniting standards IEC 61131-3 and IEC 61499, ISaGRAF offers unprecedented functionality.

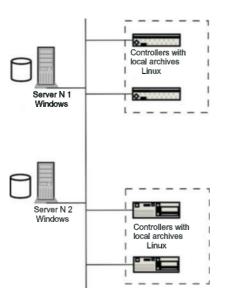
ISaGRAF Workbench is the UNIFORM development environment for various hardware-software platforms. The main characteristic is TIC-code generation (Target Independent Code is a machineindependent code), supports of 5 IEC 61131-3 languages (SFC Sequential Function Chart or Grafcet, FBD Function Block Diagram, LD Ladder Diagram, ST Structured Text, IL Instruction List), in addition Flow Chart, step-by-step debugging, system of passwords, data exchange between controllers over Ethernet network, cyrillic interface and the documentation.

ISaGRAF Target System is executed under control of various OS. It is transferable and adapted system to any hardware platform. It is implemented for OS (Linux, MS-DOS, OS-9, QNX 4.25, QNX 6.x, VxWorks, MiniOS7, Windows). Operation without OS is possible also. ISaGRAF I/O Development Tool is a software package which is necessary for implementation of own drivers under ISaGRAF, functions, function blocks and other extensions for lower layer applications.

ISaGRAF 5 ++ ACE Target is the complete complex of solutions for high-speed processing, handle and delivery of data to a top level of automated control systems. ISaGRAF 5 ++ ACE Target supports all functionality of standard ISaGRAF 5 target system and it has a number of additional possibilities and features. ISaGRAF 5 ++ ACE Target system sources are uniform for different OS, invariance to a platform, a high speed of fulfillment, it has a function of time measurements with a high-resolution (microsecond), fast operation with ISaGRAF-arrays, matrixes etc., supports of fast data exchange FDA with remote clients and a FDA-OPC-server conducting local archives (FIFO).



FIORD Co., Ltd. (Russia) is founded in St.-Petersburg in 1992. The main direction of company activity is supply of modern program and hardware tools for development and creation of embedded systems, industrial automation and building automation systems, special purpose systems.



ISaArch is distributed system of historical data archives supporting. It includes executive and server components.

The executive component of archives supporting is implemented on the basis of ISaGRAF technology and fulfils functions of saving of ISaGRAF data in archive of the local controller. It includes also resources of transportation of the given local archives on a server by server inquiries.

The server component of system of conducting archives fulfils functions of the data gathering, the controllers stored in local archives, in global historical data base of the project. It gives the access interface to the stored data for client applications.

The main properties of ISaArch:

- 1. Writing only the varied variables;
- 2. High speed data transfer (to 100 thousand **ISaGRAF** variables per second without saving of data on a controller disk);
- 3. Saving of data on a disk of the local controller in case of network failure;
- 4. Reliability of data transfer;
- 5. Backup of data of one controller on several servers;
- 6. Remote control of local archives;
- 7. Statistics about a state of local archives in real time.



"FIORD-101-M" is a programmable communication controller, it is intended for data exchange support between various controllers, remote devices and SCADA over serial ports (RS-232, RS-485), CAN and Ethernet.

It runs under Linux OS, provides data exchange on Modbus TCP protocols and Modbus RTU, on IEC 870-5-101 protocol with the device of data gathering ENKS-2 (ENKS-2.11.0).

Built in target system ISaGRAF 5 ++ ACE Target provides flexible configuration of procedures of an exchange and data processing. Technological software (configuration and logic programming) is ISaGRAF 5.

Controller is based on Eurotech's PC/104 modules. A controller computing kernel is AMD Geode GX1 266 MHz processor. Communication interfaces are Ethernet 100BaseT, 5 x RS232, 5 x RS232/422/485, 2 x CAN (option). For storage of loaded operating system and target software 64 MB Mini-IDE Flash-disk is used.



CompuLab, Ltd. (Israel) was founded in 1992. Since 1997 Compulab releases processor modules (CM - Computer on Module) for embedded applications in various branches of production. Since 2004 Compulab's modules are actively used in domestic developments. CompuLab's Computer-on-Module's are full-featured single board computers designed for mezzanine attachment to custom application through unified miniature high-density connectors that allows to install them both in CompuLab's carriers, and in the cards developed by the user. For development of own cards-carriers the exhaustive documentation is given. The various architecture of modules and the unified connectors allow to develop a scaled computing kernel for any electronic device practically.



The main features of modules is presence of all functions inherent in usual computers, small dimensions, flexible custom configuration, two built in Flash disk (NOR and NAND), Ethernet controller, support of various operating systems (DOS, Linux, VxWorks, QNX, Windows 9x/CE/NT/XP/Embedded), the expanded working temperature range, a set for LCD connection and many other things. Compulab's production is delivered in hundreds companies among which such as Cisco Systems, SIEMENS, OKI etc.



Eurotech S.p.a. (Italy) founded in 1992 is the world-wide leader in the field of embedded computer technologies. The company is presented to Russia since 1996. Lately PC/104 production with Eurotech trade mark was recognized for the Russian developers, thanks to the original architecture (the built in Flash-disk, a mode of "virtual peripherals" and so forth), fault tolerances, vibration strengths, crash-worthiness, ability to work in a wide temperature range (from-55°S to +85°C), to excellence and reliability.



Today PC/104 and PC/104 Plus modules are presented by a number of processors from 386SX 40 MHz to Celeron ULV 400 MHz / Pentium III 800MΓμ; a set of standard peripherals such as audio, SVGA, PCMCIA, communication units (5 ports Ethernet 10/100, GPS/GPRS, MIL-STD-1553); DC/DC converters; compressors MPEG-4/JPEG-2000, etc.

Eurotech is the universal partner for implementation of custom projects of embedded computers with x86 architecture and high-efficiency embedded systems. The company offers a complete set of products and tools for a wide spectrum of industries: transport, telecommunications, space, aircraft, etc.



In 2002 company Eurotech has merged some the hi-tech companies of Europe and America to a uniform community which has received name Eurotech Group and which included world and European known manufacturers: ERIM, EXADRON, ASCENSIT, IPS, NEURICAM, EUROTECH and PARVUS (USA). In 2006 Eurotech Group included family of companies Arcom (the USA and England).

> Today Eurotech Group offers in the world market a wide spectrum of technical solutions and the completed systems from embedded processor modules to high-efficiency clusters.

The Russian consumers of production Eurotech apply technical solutions of the company in such areas of the industry as onboard avionics (civil and military), instruments of sea assignment, electric power industry, telecommunications and many other things.



STEC Inc. (USA) is founded in 1990. STEC specializes on production of solid-state disk drives, modules and Flash-memory cards, and also memory modules DDR2 for a wide range of industrial applications.

The main products: PC Card ATA Flash card (to 8 Gb), CF Card (to 8 Gb), 2.5"IDE Flash Drive (to 8 Gb), Flash Disk Module (to 2 Gb), USB Flash Drive/Embedded USB Drive (to 2 Gb), ZEUS 2.5" SATA (to 64 Gb), ZEUS 3.5"SATA and USB (from 10 to 192 Gb), etc.

The extended working temperature range (-40° C to $+85^{\circ}$ C), vibration strength to 16,3 g, crash-worthiness to 1500 g, a time between failures - till 4,000,000 hours, quantity of cycles of record/erasing - to 2,000,000, the low power consumption, the built in mechanisms of an error correction, a quarantee on production - 7 years. The company has the certificate of quality ISO-9001, ISO-14001-2004.

The main spheres of application STEC devices are space, aircraft, sea, railway and motor transport, telecommunication devices, civil and military laptops etc.



GE Fanuc Intelligent Platforms. GE Fanuc Intelligent Platforms includes following companies SBS, Condor and Radstone, etc. GE Fanuc IP is recognized leader in the field of development and production of embedded computer solutions in VMEbus, CompactPCI and PMC standards. The company represents a complete spectrum of processor modules, inputoutput modules, communication devices, mezzanine cards.

OSATEC (Russia) is the domestic developer and the manufacturer of monitoring systems and the handle, fulfilled on VMEbus and CompactPCI. Since 1992 the company develops and releases on the own mezzanine product line, modules, backplanes and enclosures for various conditions of maintenance taking into account requirements of customers. VMEbus and CompactPCI production is released in following fulfilments:

- Commercial (working temperature 0°C to +70°C; shock 20 g, 6 msec; vibration 2 g, with frequency of 0-100 Hz),
- Industrial (working temperature -40°C to +85°C; shock 20 g, 6 msec; vibration 2 g, with frequency of 0-500 Hz)
- Military (working temperature -40°C to +85°C; shock 40 q, 6 msec; vibration 6 q, with frequency of 0-2000 Hz), rigidity edges.

CMOS-technology usage reduces power consumption and a thermal emission. Contact cooling agrees IEEE 1101.2 for support of the best temperature mode. All products for the extendeded temperature range pass electrothermal training within 48 hours at temperature +85°C. High reliability (MTBF> 10 years on MIL-HDBK-217). Guarantee is till 5 years. Supported OSs are DOS, Linux, VxWorks, QNX, Windows 9x/CE/NT/XP.

