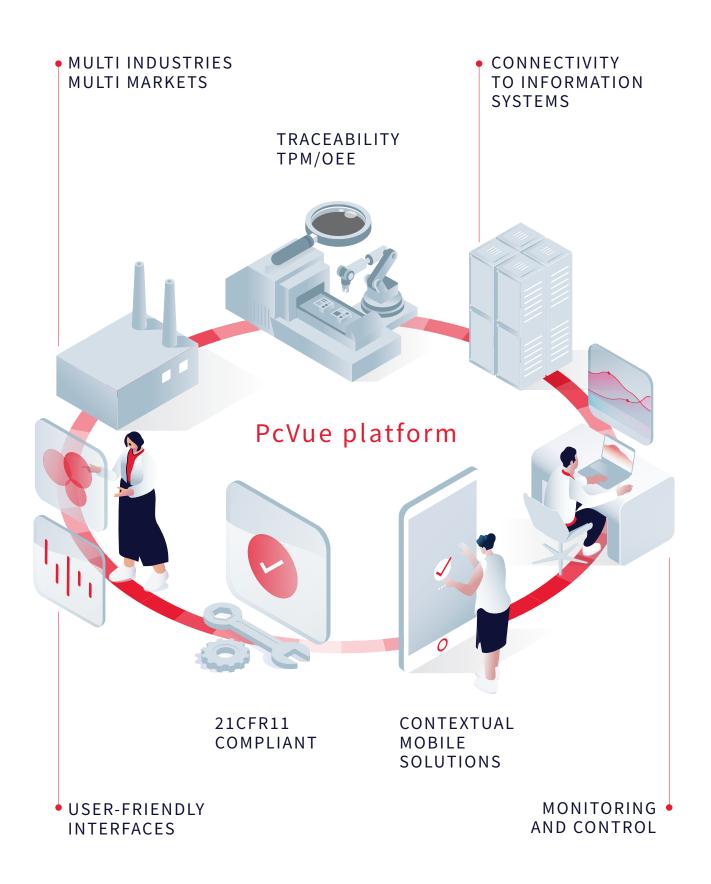


Open connectivity SCADA software platform

# SOLUTIONS FOR INDUSTRY









To meet the quality, safety and flexibility needs of modern production process, PcVue enables fully integrated monitoring and control solutions that improve productivity, product quality and traceability. Through PcVue's rich development environment and extensive integrated drivers list, system integrators can develop personalized, end-user applications, increasing manufacturer's profitability and facilitating compliance with international regulations.

### YOUR NEEDS

- Monitoring and control for any kind of industrial installations for the production or the facilities
- Connecting heterogeneous devices and standardizing operation modes
- Securely ensuring the continuity of the production
- Optimizing the operations and maintenance of the production tools
- Ensuring the traceability of production data
- Reducing cost of system updates (development, operator training)
- Benefit from sustainable solutions which can be autonomously managed by final users

### V

With a rich HMI, connectivity to any kind of devices, full reporting capabilities, and innovative tools for maintenance **PcVue** offers a unique platform for industries.

### OUR SOLUTIONS

- Built-in support of the standard drivers of automation and control devices
- Optimized management of alarms, trends and events for the operation and the maintenance
- Ergonomic and user-friendly graphical interface, adaptable to all types of processes
- Single development platform including an intuitive configuration environment
- Interoperability ensured with the global system of your company : ERP, CMMS, quality, IT
- Flexibility and scalability : from a single station to client-server architecture
- Built-in support of the 21cfr11 standard
- Contextual mobility solutions to facilitate the work of the operator





### A COMPLETE SOLUTION FOR SUPERVIZING YOUR INDUSTRIAL PROCESS

### WHY CHOOSE PCVUE PLATFORM ?

PcVue is a fully-featured product that represents the latest advances in software for monitoring and control industrial processes

PcVue is developed under the recommendations of integrators, OEM, end user and with the experience of ARC Informatique in the domain of industrial automation.

PcVue is an open and flexible platform which respects the constraints of reliability and performance of the industry.

PcVue is easily scalable from a local station to a client/server architecture. With an user-friendly interface and a modern ergonomy based on an "object" approach, PcVue facilitates the work of both integrator and operator.

PcVue platform also offers solutions for on-call and reports management, as well as a hardware offer to cover the needs in IoT infrastructure. The network aspects are covered by our solutions of cybersecurity.







### PCVUE PLATFORM SOLUTIONS FOR DIGITALIZED ENERGY

The constant and rapid changing of technology continuously brings new ways that complement current methods and change the practices used for monitoring installations.

The advent of mobile applications such as proactive transmission of information depending on users, dynamic and contextual information display (and the disappearance of static navigation menus) are some examples. In an increasingly communicating universe, PcVue innovates with solutions that facilitate exchanges between people, connected objects and the SCADA system by taking advantage of the latest mobile and geolocation technologies (NFC, Beacons, QRCodes, GPS).

The PcVue platform is therefore totally part of the industry 4.0, offering innovative mobile solutions of geolocation, notification, and navigation on smartphones or tablets.

A user can be informed in real time, depending on his/her position and level of responsibility, of actions he/she may realize from his/ her smartphone.



He/she can therefore control the setpoints, analyse the trends and view a manufacturer datasheet... reducing the risk of error because the contextual informations displayed being linked to his/her field of responsibility (maintenance, operation...).

He/she can also be notified of any alarm and perform a quick diagnosis of the failure to decide the most relevant action: sending commands to the device, release...

At the same time, to ensure safety, the control room is able to know the position (inside or outside) of the mobile devices

These contextual mobility solutions allow a faster analysis of the situation, as well as immediate and efficient actions if necessary, improving the availability and the security of the installations. PcVue is a major player in the world of the industrial SCADA and capitalizes more than 30 years of expertise allowing our partners to develop new applications and to support the migration of old installations, taking advantage of the latest technological innovations



The mobile app SnapVue automatically adjusts the display of the informations according to the credentials of the user and to his location.





### SUPERVISE YOUR INSTALLATIONS EFFICIENTLY

Monitoring and control of your devices anywhere, anytime

### VISUALIZATION AND COMMANDS

- Sustomizable, modern and intuitive graphical interface
- ♂ Thousands of objects ready to use
- Real-time visualization of the installation' status Sending commands to the devices
- ♂ Remote control on smartphone or tablet

### **ON-CALL MANAGEMENT**

- ♂ On-Call software ALERT
- Solution of the operators (phone, sms, mail)
- ♂ Management of the operation team
- ♂ Transmission of the acknowledgment

### ENSURING THE CONTINUITY OF THE PRODUCTION WHILE MASTERING OPERATION AND MAINTENANCE COSTS

Preventive and operational maintenance of the installations

### ALARMS & EVENTS MANAGEMENT

- 𝗭 Advanced real-time alarm visualization
- ${rac{ {\it O} }{ {\it O} }}$  Notifications of alarm by email, sms or mobile app
- ♂ On-call module for an efficient management of maintenance and operation teams







## ADVANCED FEATURES OF DATA VISUALIZATION

- 𝗭 Displaying of the data by zone, devices, use...
- ${\it C}$  Real-time and archived data trends
- ✓ Compared trends
- 𝔄 Displaying thresholds
- ✓ Export of trend data towards Excel

### HARDWARE SOLUTIONS

𝗭 Allied Telesis complete hardware suite

### IMPROVE YOUR PRODUCTIVITY AND YOUR QUALITY OF SERVICE

Traceability, performance monitoring (KPI)

## PROCESSING THE PRODUCTION DATA

- 𝗭 Archiving the data in SQL Server
- Solution of prodctivity indicators (TPM, TRS...) according to the NF E60-182 standards
- ✓ Edition and generation of dynamic production reports in several formats, which can be accessed online with Dream Report software
- ${\ensuremath{\overleftrightarrow}}$  Connexion between the different information systems of the firm (ERP, CMMS, Quality, IT ...)







### PCVUE PLATFORM FACILITATES THE WORK OF THE SYSTEM INTEGRATOR

#### OPTIMIZING THE DEVELOPMENT COSTS

Optimizing the development costs with a platform, easy to implement and to maintain.

### AN OBJECT-ORIENTED APPROACH

An object-oriented approach to minimize the risks of error, to reduce the development costs and to simplificate the applicative maintenance.

### ADAPTATIVE AND FLEXIBLE DEPLOYMENT

Adaptative and flexible deployment, from the local station to the multi-site architecture.

### INTEROPERABILITY

Interoperability, from the production to the several information systems of the company



### MONITORING AND CONTROL

#### **Graphical interface**

Intuitive 2D/3D object library +60 predefined animations Multi-lingual HMI Platform

#### Advanced event and alarm management

Configurable event/alarm windows Sorting filter by status, priority and/or attribute - modifiable online Contextual alarm management Alarm counter

### Supporting the 21cfr11 standard Trends

Simultaneous display of real-time and archived trends Customizable interface Trend export towards Excel

### COMMUNICATION INTERFACES

#### **Extended drivers range**

Modbus IP S7 IP Ethernet/IP Rockwell IP +100 industrial protocols

#### Interoperability

OPC (DA/UA) Web services (RESTful) Tag access tool VBA

### CONFIGURATION

#### **Smart Generators**

Mass import configuration from third-party softwares or from external configuration platforms (PLC's platforms, CAD softwares, proprietary softwares, SCADA...)

Schneider Unity®, Siemens®, TIA portal FactoryLink, XML....

#### **Application Explorer**

Configuration tool "all-in-one" for the settings and the diagnosis

Application Architect Modeling and generating projects

### PCVUE PLATFORM

### DEPLOYMENT

Versatile architectures Single station Client/Servers Distributed

#### **Mobiles solutions**

Smart mobiles app HTML5 web client Remote access

Safety & security Windows Active Directory Secure connexions using HTTPS

**Central version management** 

### DATA PROCESSING

#### Archiving

Built-in SQLServer archiving, centralized or local Configurable historic depth Maintenance plan (export, purge...)

Universal data connector : SQL bridge to connect any ADO.net providers - ERP -MES - CMMS - ...

#### Recipe management

Embedded system of recipe management

Development tool for the management of batches

### Traceability, performance monitoring

Productivity indicators (TRS, TPM...) Design and generation of dynamic production reports, in several format and available online Connection with IT, ERP, CMMS, Quality...



#### INNOVATION FOR INDUSTRY

### THE CONTEXTUAL AND MOBILE APPROACH FOR INDUSTRIAL SUPERVISION

### PcVue digital assistance

Since the arrival of supervisory systems and controls for industry all monitoring and control features were generally achieved from a central control station.

The use of smartphones and other mobile devices in the professional world naturally leads to a rethink of the interaction of workers with their workstation and associated practices.

The way users interact with their smartphones is more readily through geographical representations and icons than a browser and menus. The historical approach on how to control, diagnose, maintain a industrial installation is now completely reconsidered.

A mobile user does not wish to navigate a graphically rich supervision application. He/She wants, above all, to be notified of events that concern him and have information relevant to the tasks he has to perform according to his location. With the availability of geo-tags, we are in fact in the middle of a world increasingly communicating with connected objects (IoT) allowing the contextual monitoring offered by PcVue platform Mobile. The Geo-tag technology is based on Bluetooth Low Energy (BLE) Beacons, Near Field Communication (NFC) or QR-Codes. These technologies, as well as the Global Position System (GPS), are now natively integrated standards on the latest generation of smartphones.

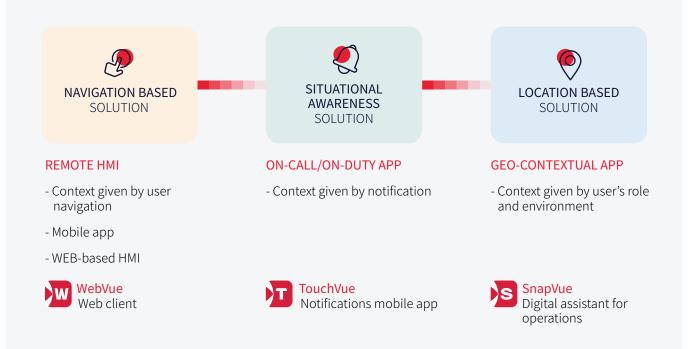
## SnapVue mobile app takes advantage of Geo-tags to bring information to mobile users..

The geolocation mobile app SnapVue allows a user, depending on his / her profile, to automatically obtain the contextual information related to his / her area of responsibility (maintenance, operation, etc.) in the zone where he / she is and to have access to the actions he/she can undertake, directly from his mobile. He/She will be able to control the set points, analyze trends, consult a data sheet or exchange instant messages (text,image,video,audio) with his/ her team.

The notification mobile app TouchVue allows to get notified in case of an alarm and to quickly react sending a command and acknowledging the alarm.

In addition to the navigation from a web browser with WebVue, these solutions which can be setup in existing systems allow operators to be both more responsive and efficient..

## CONTEXT-AWARE MOBILE SOLUTIONS





## FEW CASE OF USE

### COMMISSIONING

### SCENARIO

- The Project is in commissioning stage and the automation engineer is testing the system
- ✓ Engineer enters an Bluetooth LE Beacon area or scans NFC or a QR code<sup>®</sup>
- ✓ Engineer immediately accesses the SCADA mimic related to the location and can test the system alone by forcing local parameters on device. He/She can check the physical device while checking the SCADA

### **BENEFITS**

- 🧭 Speed up commissioning tasks
- An engineer is able to perform commissioning task autonomously
- ✓ Commissioning both devices and SCADA system at the same time
- ✓ All Industries, Infrastructures and BMS applications where automation system is being installed

### MAINTENANCE OPERATIONS

### SCENARIO

- A Maintenance staff is performing maintenance task on device
- They are facing a machine or device that has no HMI or operator Interface
- ✓ They scan the QR code<sup>®</sup> or touch the NFC tag to visualize status and parameters
- ✓ They then set the device to maintenance mode masking alarms, then enter their maintenance actions & reports
- They can consult Manuals or devices datasheets as needed

### BENEFITS

- Provides a mobile interface to verify status live of connected equipment
- ✓ Improves safety as maintenance staff has full live information and data sheet/manual available
- ✓ Can tune parameters according to overall system and visual reality on the spot
- Intervention summary done on the spot and immediately recorded on central system

### ON-CALL MANAGEMENT

### SCENARIO

- 🧭 An operator works on a site
- An alarm occurs on a production device of the plant
- ♂ The operator receives a notification on his smartphone and can access the alarm's details.
- He/she can immediately perform a first diagnosis and send a command to the device from his/her smartphone if necessary
- ✓ He/She can also aknowledge the alarm, its status being updated in real-time on the central station

### BENEFITS

- Allows immediate diagnosis and action, without the need to go on the location of the alarm
- Increases the reactivity of the operators over the apparition of an alarm wherever they are
- An simple, economic and efficient on-call management solution





### SUCCESS STORY

## DUNN-EDWARDS PAINT

Monitoring and control of paint production system

Since 1925, Dunn-Edwards Corporation has been the leading manufacturer and supplier of architectural and industrial coatings in the Southwest of the USA, providing a complete line of paints and painting supplies to professionals and quality-conscious consumers.

Dunn-Edwards centralized all operations into one large, state of the art manufacturing facility residing in Phoenix, AZ, which is fully automated to gain all the advantages inherent with automation. Centris Technologies, known for its industrial control and automation expertise, developed and integrated all the real- time process control and SCADA development on the plant floor.

### *PcVue allows monitoring and control of the paint manufacturing process as well as the maintenance operation and the product quality process.*

Dunn-Edwards utilizes an extensive array of quality control measures. The ingredients and the manufacturing process undergo stringent tests, and the finished product is checked to insure that it is of high quality.

Operators access both real-time and historical production data. They can visualize trends, alarms list or reports, which help them to take the best decision for the batches.

All the system can be accessed remotely using a standard web browser across the intranet or internet network.

Operators manage anywhere between 10 – 20 batches per shift within PcVue.

The system architecture consists of 2 PcVue servers set up in a redundant configuration and connected to 10 Centris Technologies Advanced Process Controllers (APCs), each running ISaGRAF over TCP/IP. The servers connect 12 PcVue client stations located in key operator locations

PcVue interfaces an enterprise resource planning system (ERP) from SAP - sharing some 55,000 I/O points. SAP has embedded a Pico module for I/O connectivity which is communicating to PcVue's SCADA through OPC®.

#### TECHNICAL HIGHLIGHTS

- 2 redundant acquisition servers
- 12 PcVue client stations

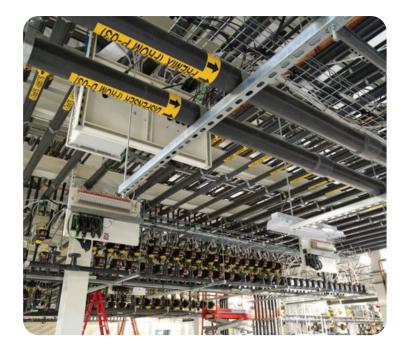


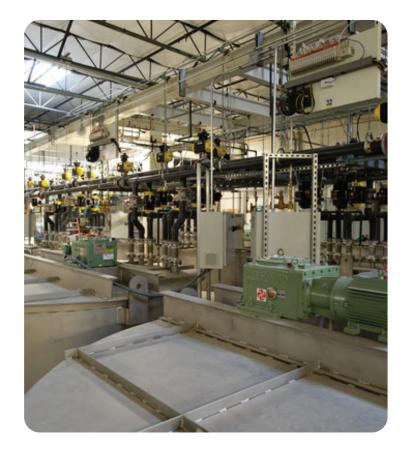
### NEEDS

- ✓ Monitor and control all processes with remote access
- ♂ Scalability for future expansion
- ✓ Integration with the ERP

### BENEFITS

- ♂ Better productivity
- 🧭 High reliability
- More efficiency for operation and maintenance





- 𝕑 Web clients
- ✓ 10 Centris Technologies Advanced Process Controllers (APCs)
- ♂ 3 ISaGRAPH devices fully compliant with both IEC
- ✓ 61499 and IEC 61131 industrial control standards
- 🧭 75 000 data points
- 🧭 SAP









### REFERENCES

### SOME OF OUR REFERENCES

KRONENBOURG / Obernai - France Controlling the brewing processes

#### DESCRIPTION

PcVue manages the brewing of the vessels, as well as a part of the air-conditioning system, the heating and the filtering of the site.

**DOW-CORNING** / Saint Laurent du pont - France Monitoring processes

#### DESCRIPTION

The Drow-Corning company specializes in the manufacturing of silicone, has chosen PcVue to ensure among other weekly production schedule, weekly follow-up (stops machines, cleaning, breakdowns...), batch records, as well as the listing of the completed batch, general balance sheets, and finally historical flaws.

#### AIR FRANCE INDUSTRY / Orly - France

Project TPM (Total Productive Maintenance) for technical installations

#### DESCRIPTION

Twelve very different facilities are monitored and controled: a four hydrogen, benches pumps, the transtockers robotic, machine tools, water treatment... PcVue gathered the following data: States of devices, running time counters or number of cycles, measurements (temperature, pressure, current...) Alerts and alarms-oriented maintenance.

#### **OPTICAL GLASS MANUFACTURER / World**

Monitoring the production and treatment of molded glass

#### DESCRIPTION

PcVue is at the heart of the processes of manufacturing and treatment of molded optical glasses Centralized monitoring and real-time data processing of different machines (alarms, trends) Archiving the totality of the production configuring data.

#### Connection with a CMMS software

This solution is being developped in every production and laboratory site throughout the world.

Benefits : Better exploitation activity Rationalization of the machine management and significant produtivity gain.



### DIOR / Orleans - France Traceability application on the DIOR Gold Workshop

#### DESCRIPTION

The Dior Orleans cosmetic workshop is made up of three manufacturing positions, each composed of two tanks, ensuring the development of the product. PcVue enables the following features: strict management of users, acquisition rights and process real-time data processing, launch from the HMI of manufacturing, follow-up orders and control of the manufacturing of all tanks.

#### GALVANO / Canada

Command Control of an electrogalvanizing line

#### DESCRIPTION

GALVANO is one of the biggest firm regarding the coating of mechanical pieces. PcVue monitors the automatized galvanization system of more than 150 tons of materials per day and ensures the interface with the CMMS for the automatic treatment of the range and orders of fabrication, as well as the monitoring of conveyors and baskets.

#### SPECIAL METALS / France

Monitoring the production of raw materials for the chemical industry

#### DESCRIPTION

Special Metals producted especially from sodium, chemical derivatives of vanadium and alcalines, chlorine and potassium. Their products are used in developping industrial sectors; renewables energies, electronics, healthcare and hygiene, automotive and buildings, textile and paper...PcVue is used to monitor several batches and technical workshops (chlorine detection, liquid chlorine, vanadium chlorine, vanadium workshop, lithium process, treatment of wastes...)

#### PIECES MANUFACTURER FOR THE MILITARY / France

Performance indicator system for virtual machines following the NF-E60-182 standard

#### DESCRIPTION

Several independent production chains are composed of machine-centers monitored by PcVue. The status of each machine are centrally collected and archived on a productivity post. This post is used to elaborate normalized productivity indicator and to generate and publish reports concerning the production chains. The reports furnish chronograms displaying the status of the machines as well as the statistic indicators following the GF E60-182 standard, and the TRS vanadium chlorine, vanadium workshop, lithium process, treatment of wastes...)









### SOLUTIONS FOR INDUSTRY

In business for over 40 years, ARC Informatique is a forward-thinking industrial software editor with
16 offices worldwide. Using the latest technologies,
ARC Informatique develops PcVue, a reliable, secure, and robust SCADA platform, dedicated to monitoring and control applications.

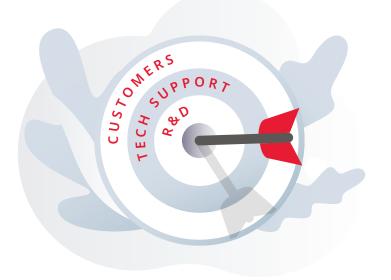
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With 160+ dynamic team members, we are both physically very close and culturally compatible with our user base, thereby facilitating responsive customer care. Our ISO 9001, 14001 and 27001 certifications ensure quality, sustainability, and security in our development processes from design to delivery.

#### A BETTER INDUSTRY

We'll partner with you to improve productivity and sustainability today, and drive the transition towards industry-wide gains that everyone benefits from.





# A CUSTOMER-ORIENTED APPROACH

Listen to and answer our customers Develop and adapt our solutions via R&D Responsive technical support.





# CONTINUOUS QUALITY







ARC Informatique is ISO 9001, ISO 14001 and 27001 certified





### Solutions for #Industry

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