PcVue LET'S ENGINEER

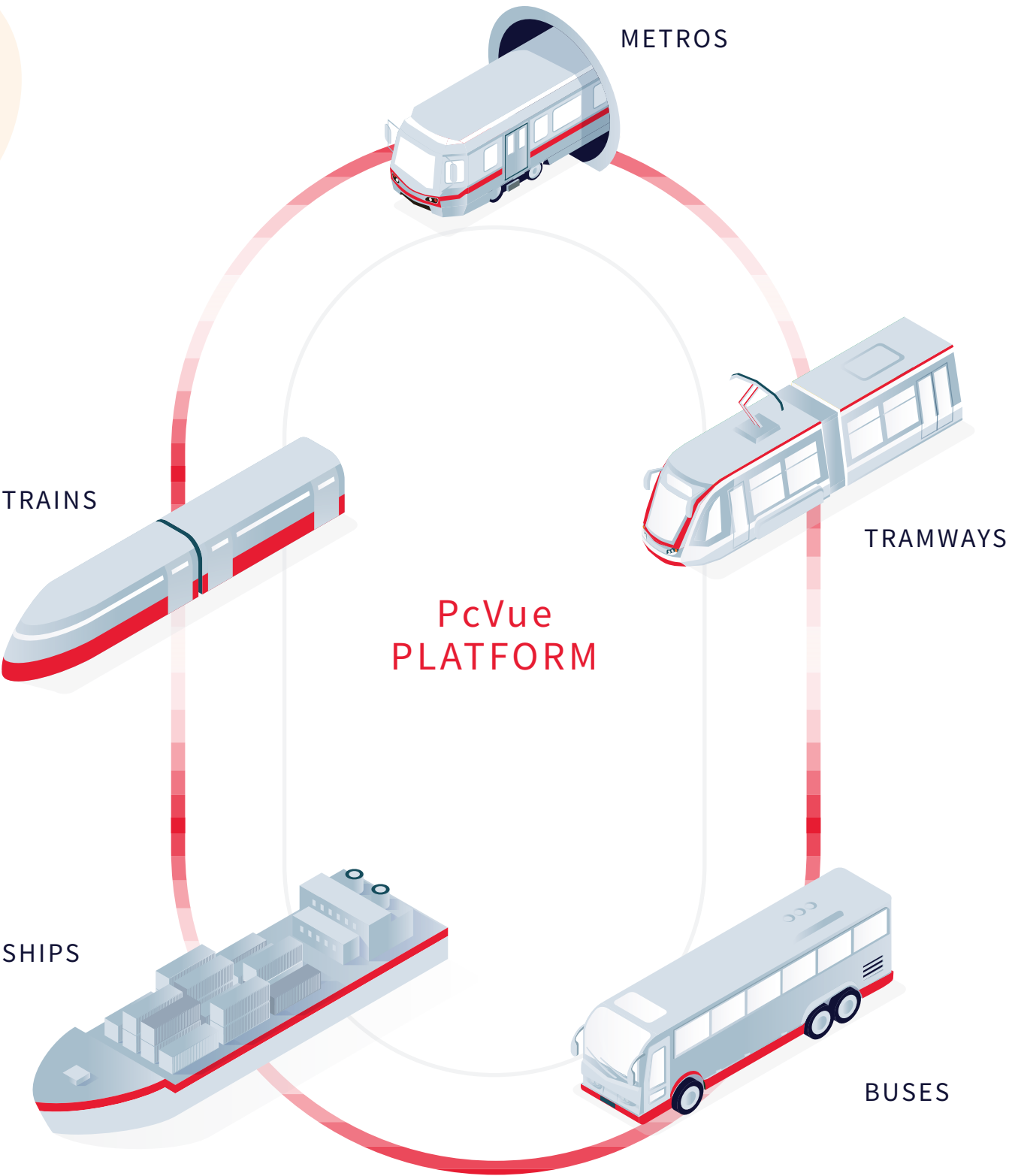**OPEN CONNECTIVITY SCADA SOFTWARE PLATFORM**

SOLUTIONS FOR TRANSPORTATION

Trains, Metros, Tramways, Buses, Ships

PcVue
PLATFORM

METROS

TRAMWAYS

TRAINS

SHIPS

BUSES

PcVue ensures a reliable system for any kind of transport

PcVue is a software platform to monitor and control transportation system that guarantees supervision of intra/extra urban transport facilities as it contributes to the confort and safety of people.

FEATURES

- High-availability system architecture
- IP video protection integration
- Replay system
- Interactive map
- Operations guidance system

- Alarm and events management system
- Wall screen display
- Dedicated libraries for power lines and train signals
- Vehicle tracking

An offer designed for all transportation systems needs that meets the operations and regulation requirements

BENEFITS

- A full featured solution for train signaling system
- Optimize operations & maintenance reducing costs
- Keep in operational conditions
- User-friendly solution for operators
- Provide more services for citizens
- Platform designed to increase safety and security
- Power optimization

WHY CHOOSE PCVUE?

**PcVue platform is useful to help
transportations industries to success**

Transportation and logistics comprise a diverse
industry including all modes of transportation for
goods and people. The markets are on the move. Due
to advancing globalization, declining trade barriers and
an increasingly mobile workforce, the transportation
and logistics industry continues to enjoy above average
growth. Transport companies and logistic service
providers are expanding their service offerings both
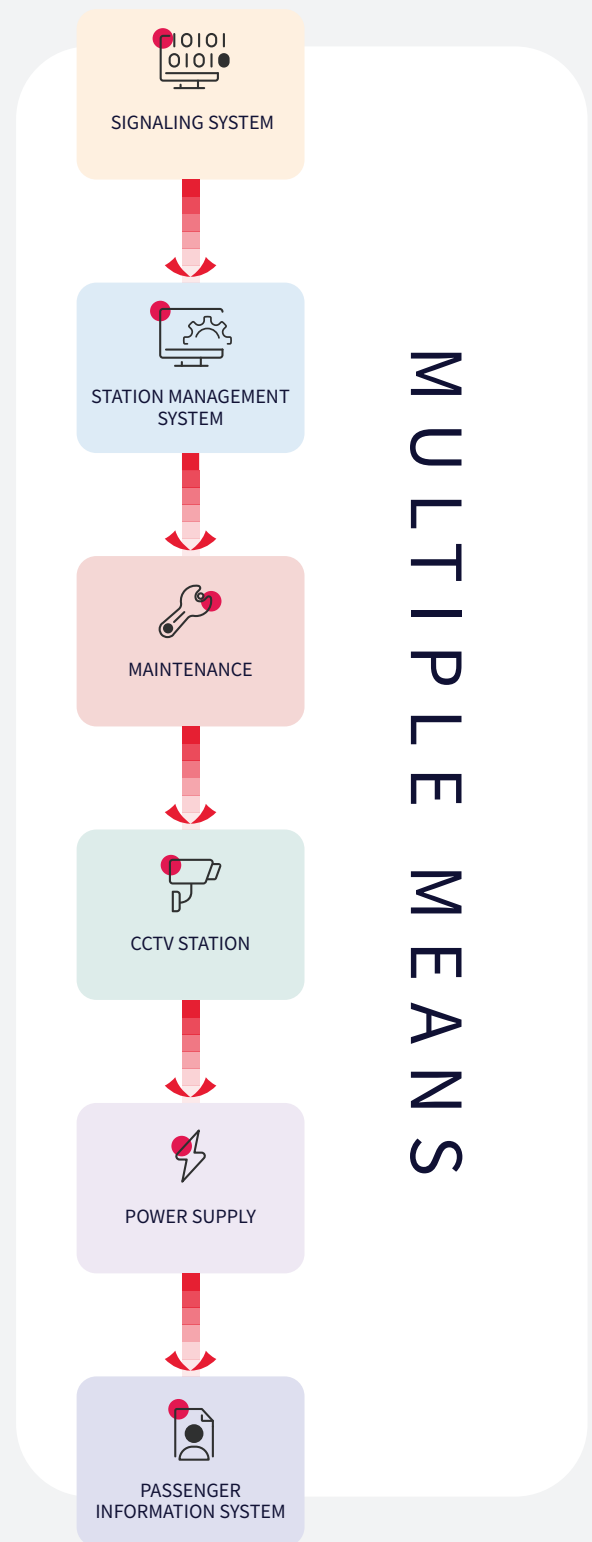upstream and downstream.

Nowadays, transportation industry requires more
safety and efficiency and PcVue provides valuable data
to prevent accidents, reduce delays and generate trend
analysis in order to improve decision-making.

PcVue platform delivers full control and connectivity,
implementing a large variety of built-in drivers with a
rich graphical interface, an alarms and events logging
system and reporting capabilities. PcVue is a solution
for real- time supervision and long-term operation.

Tramway of Nice

INCREASE TRANSPORTATIONS FACILITIES

PcVue is a software platform to monitor and control transportation system becoming pivotal to reach optimal efficiency and maximum security in each and every aspect of passengers and goods transportation. From signaling, traffic control, to baggage handling systems, supervision systems manage increasingly vital systems in ever-growing infrastructures.

SIGNALING SYSTEM

STATION MANAGEMENT SYSTEM

MAINTENANCE

CCTV STATION

POWER SUPPLY

PASSENGER INFORMATION SYSTEM

MULTIPLE MEANS

PERFORMING SOLUTION AT COMPETITIVE COST

- ☑ Running on Microsoft Windows
- ☑ Using Standard PCs
- ☑ Highly Configurable
- ☑ Multiple Display Management
- ☑ Using SQL Server for Data Base
- ☑ Management
- ☑ Validated by partners for large applications
  (more than 300.000 variables)
- ☑ Integrated redundancy features

STATION CCTV SYSTEM

- ☑ Camera selection
- ☑ Display selection
- ☑ Real time video insertion
- ☑ Emergency calling booth/synchronization
- ☑ Camera orientation Control (Pan, Tilt, zoom)

TRAIN SIGNALING SYSTEM

- ☑ Lines Overview
- ☑ Synthetic and clear picture of sub-networks
- ☑ Library of Standard or Customized Signaling Symbols & Control Panels

PLATFORM FOR DIGITALIZED TRANSPORTATION

To answer the need of optimal efficiency, maximum security, and timely passenger service, PcVue has a long and varied track record in providing automated solutions for the transportation industry. Through PcVue's rich development environment, integration of video, audio, fire, security, and infrastructure automation, transport system operators can have complete control over all aspects of their operations, including compliance with international regulations.
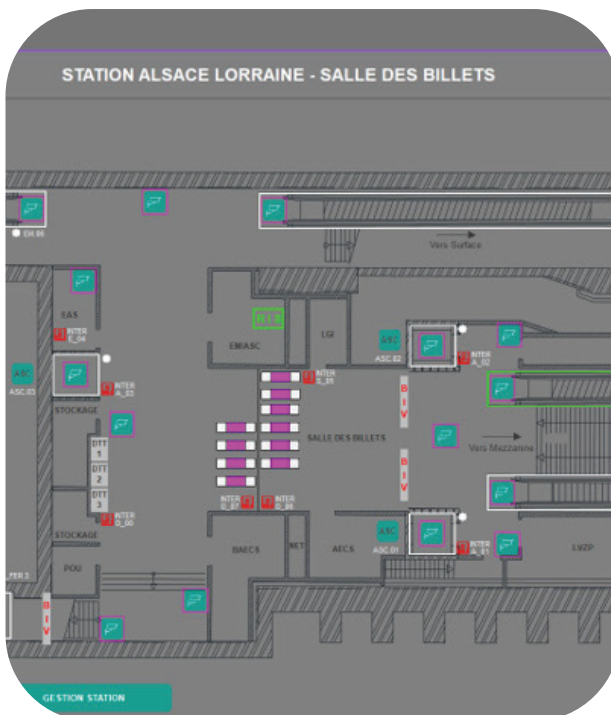
OPEN CONNECTIVITY SOFTWARE PLATFORM FOR TRANSPORTATION

CENTRAL SYSTEM CONTROL

- ☑ PC & Network Failure Detection

LOCAL SYSTEM CONTROL

- ☑ Functional views

SAFETY & SECURITY

- ☑ Multiple redundancy: Control and Monitoring stations, Controllers, Networks
- ☑ Several Control & Back up modes
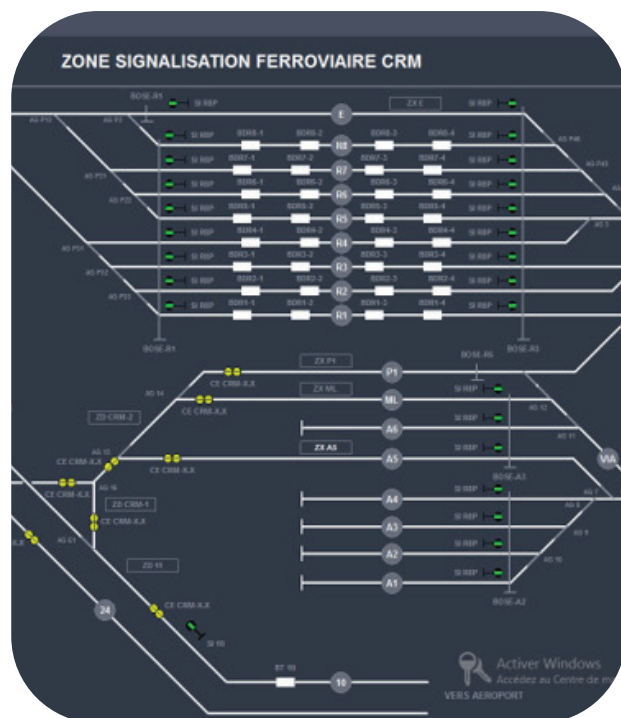- ☑ Manual simulation or by scenario

![PcVue logo]

POWER SUPPLY

- ☑ Macro Views of the Electrical Distribution

- ☑ Single Line Diagram

- ☑ Banner for real time alarm information

- ☑ Micro View for each critical main intake Substation

- ☑ Operators with proper user rights can override interlocking

- ☑ Real time and Historical trending from the same environment

- ☑ Fault and Power consumption Analysis and Reporting

- ☑ Native millisecond time-stamp in every tag

Mimics provided by ROIRET Transport

Mimics provided by ROIRET Transport

MAINTENANCE SYSTEM

- ☑ Intervention teams are set up with time schedule of each individual

- ☑ Call the person on duty and concerned by the event

- ☑ Critical Alarms trigger calls or message sending

- ☑ Calls are logged and monitored online

- ☑ SMS messages, beeper, phone call with prerecorded voice messages, emails, …

- ☑ Acknowledgement of the message

- ☑ Archived data are compiled to generate reports

- ☑ Active preventive maintenance system (down time reports…)

STATION MANAGEMENT SYSTEM

In Station Control and Monitoring System for :

- ✓ Asset Monitoring
- ✓ Air Conditioning system
- ✓ Tunnel and Station Ventilation systems
- ✓ Escalators automatic walkways and lift systems
- ✓ Emergency phone booth
- ✓ Ticket vending machines
- ✓ Station Power Supply
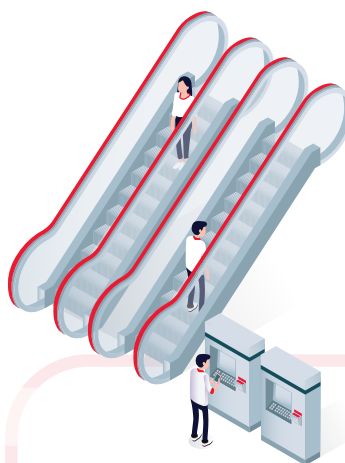- ✓ Fire Fighting system

STATION LIGHTING

- ✓ Time table & Manual Lighting Control

HVAC

- ✓ Cooling & Ventilation Management

LIFTS & ESCALATORS

- ✓ Lifts, Escalators & Automatic Walkways control

ALARM MANAGEMENT

- ✓ Alarm Groups
- ✓ Acknowledgement

PASSENGER INFORMATION SYSTEM

- ✓ Interface with specific protocols
- ✓ Monitoring display system operation
- ✓ Message management

TICKETING SYSTEM

- ✓ Interface with specific protocols
- ✓ Security breach alarm management
- ✓ Ticketing machine diagnostics management
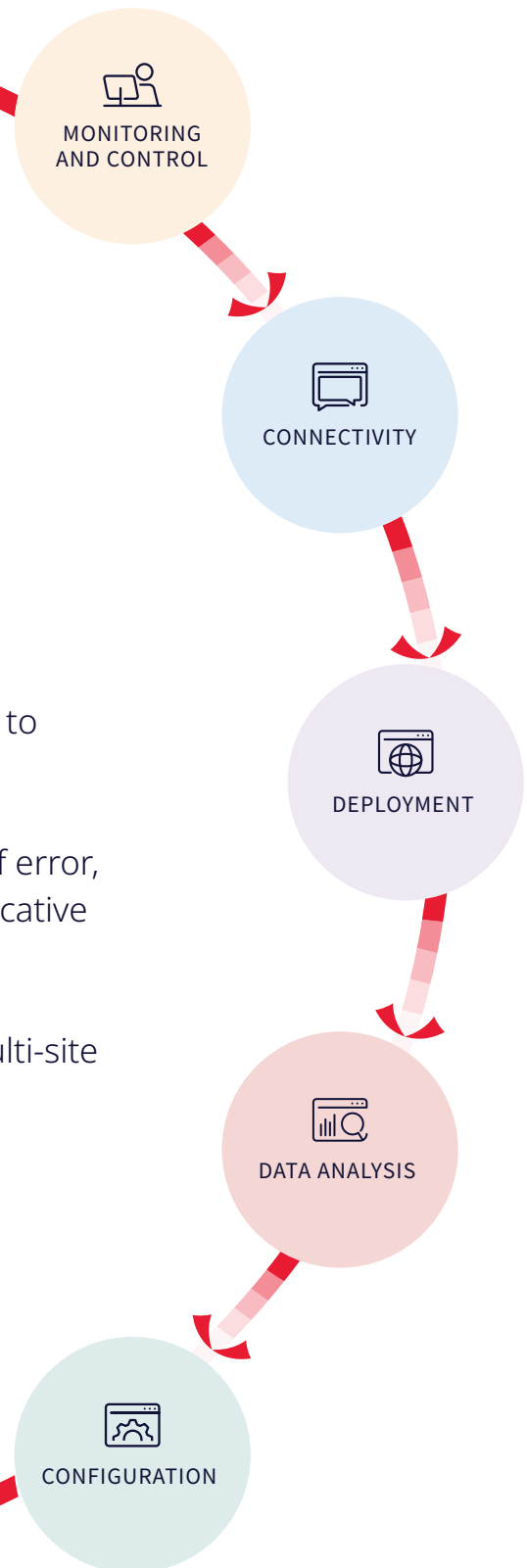
ENGINEERING & INTEGRATION

Create, maintain and update the project

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

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

Scalabledeployment, from the local station to the multi-site architecture.

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

MONITORING AND CONTROL

CONNECTIVITY

DEPLOYMENT

DATA ANALYSIS

CONFIGURATION

PcVue PLATFORM

PcVue

MONITORING AND CONTROL

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

Advanced alarm and event 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

CONNECTIVITY

Extended drivers range
SOFREL
- S50, S500 , Sofbus-PC , Sofbus-PL, Lac- bus-RTU, SMS for S500, LS, Box, S50
PERAX
- P200, P400, P16, Perax time stamped

WIT
- TRS II
Modbus IP
S7 IP
Ethernet/IP
Rockwell IP
+100 industrial protocols

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

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 ANALYSIS

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...

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

TOULOUSE TRAMWAY

PcVue solution integrates centralized maintenance, ignaling, automatic vehicle location system and closed circuit TV into a unified system

The railway systems integrator Roiret Transport, subsidiary of the Vinci Group, has selected the PcVue software solution from publisher Arc Informatique to supervise the centralized technical management (CTM) of the new Toulouse tramway. After the Lyon tramway and the Singapore and Santiago (Chile) undergrounds, it is the thirtieth urban system to opt for this solution. Every day PcVue manages the information necessary for the transportation of more than 10 million passengers around the world.

PcVue is a centralized supervision (SCADA) software with an installed base of more than 38,000 licenses around the world.

In its railway version it is used to supervise the CTM (centralized technical management) equipment, i.e. the trackside equipment of the network.

This equipment includes electricity substations, stations (ticketing, traveler information terminals, etc.), intercom, CCTV, and sometimes even the track signaling systems.

In practical terms, if a ticket machine is faulty, for example, the software sends an alarm to the operator in the central control room so that the most appropriate corrective action can be taken.

In the case of the Toulouse tramway, PcVue will interface with some thirty controllers (including one for each of the 18 stations). The software manages 15,000 to 20,000 information items in real time. It can also run applications handling larger volumes, with up to several hundred thousand managed variables.

"We first appreciated the ability of Arc Informatique to develop specific protocols, particularly for the CCTV. This enables us to interface with the network supervision PCs that have business protocols and thus ensure the continuity of the installation. Next, PcVue provides a VCR function which records the events. For example, if an incident occurs at a junction, the entire scenario leading up to the incident can be played back. Lastly, the IntraVue module enables PcVue to supervise and integrate equipment such as the CCTV cameras directly on a TCP/IP network. It is no longer necessary to use a dedicated PC for each type of equipment." said Mr. Clarenne, Business Manager at Roiret Transport.

In a central control room there is usually a computer work station for the signaling, another for the CTM, and yet another for the AVLS (automatic vehicle location system).

The standout feature of PcVue is that it can integrate everything. Signaling functions can be included on the CTM screen. In this case, with only two screens, the operator supervises the CCTV, the intercom with the trains or the stations, etc.

PcVue also provides native management of multi-screen displays and video walls. Animated graphics managing the combinations required for object coloring are supplied in the form of libraries (track circuits, switches, signals, etc.).

Development kits are available as standard for interfacing with third-party applications (train tracking, space-time plots, etc.).

SUCCESS KEYS

☑ Interface with some thirty controllers and manage 15,000 to 20,000 information items in real time

☑ Integrate signaling functions on the CTM screen

☑ Interface with the network supervision PCs that have business protocols and thus ensure continuity

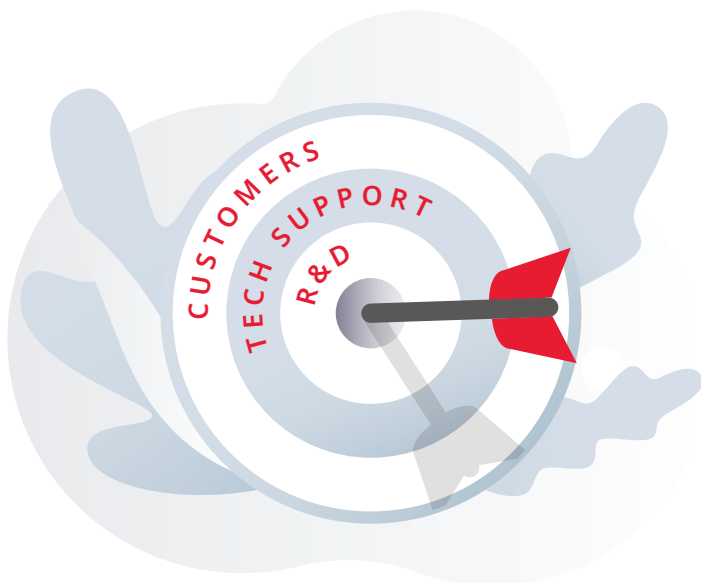☑ Native management of multi-screen displays and video walls

RESULTS

☑ PcVue Solution provides integrated CTM and CCTV supervision

☑ PcVue Solution's VCR function records the events in the system

☑ PcVue Solution manages the industrial TCP/IP network for reliability and performance

![PcVue logo]

OPEN CONNECTIVITY SCADA SOFTWARE PLATFORM

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.

To answer the need of optimal efficiency, maximum security, and timely passenger service, PcVue has a long and varied track record in providing automated solutions for the transportation industry. Through PcVue's rich development environment,integration of video, audio, fire, security, and infrastructure automation, transport system operators can have complete control over all aspects of their operations, including compliance with international regulations.

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.

CUSTOMERS
TECH SUPPORT
R&D

A CUSTOMER-ORIENTED APPROACH

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

GLOBAL PLAYER LOCAL APPROACH

16
STRATEGIC
BASES

50+
VAR
WORLDWIDE

200+
LOCAL SI
PARTNERS

CONTINUOUS QUALITY IMPROVEMENT

Microsoft
CERTIFIED
Partner

swiss safety center
ISO 9001
ISO 14001
ISO 27001
certified system

ARC Informatique is ISO 9001,
ISO 14001 and 27001 certified

PcVue

Solutions for
#Transportation

Trains,
Metros,
Tramways,
Buses,
Ships

PcVue Lat SpA

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