Modern visualizations of OPC process data
OPC UA and the Internet of Things.
Our experience. Your advantage.
Wapice

Key facts

- Established in 1999
- Private ownership (majority owned by employees)
- Continuous organic and profitable growth
- Focused on providing software expertise, electronic design, innovation and best practice consulting to industrial companies
- Employing over 270 experts in six locations around Finland
- Customers: Energy, Industry, Machinery
We work in Finland near customers and education…

…with people from all over the word!
Building a better future together
Customer oriented, reliable and lean

Attracting experts that generate value and fuel innovation.

Continuous organic growth supported by high customer satisfaction.
Building a better future together
Utilizing technologies

Process level design

Development and using testing systems
- Code level testing
- Module testing
- Integration testing

Embedded systems
- RTOS, Embedded Linux
- Fieldbuses, Communications
- Electronics Design, FPGA
- C, C++
- Wireless Solutions

Graphical user interface
- Linux, Windows
- Fast UI, Portable, Responsive
- Usability, Configurability
- HTML5, Qt, .NET, C++
- UML

System level consulting
- Support of management
- Technology tracing
- Solution solving
- ERP connections

ERP
- SAP connectivity
- Configurators
- Production systems
- Testing

Process systems
- Windows, Linux
- .NET, C++, Java, Java EE
- Object oriented, 3-tier
- OPC classic / UA
- Databases. SQL, No SQL
- Big data, Hadoop/Hbase
- PLC, IEC1131-3

SW & HW design

Technology
Wapice utilizing OPC Projects since 2000

OPC Classic
- Server
- HMI
- Client
- PC Tools
- Diagnostics
- SCADA

OPC UA
- Server
- HMI
- Client
- PC Tools
- Wrappers
- Proxy
- Gateway
- Redundancy
- Mobile
- SCADA
- Linux
- Real time
- C/C++
- Java
- .NET

OPC UA Early adopter working group
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WRM platform

The WRM platform in brief
- Remote monitoring and control of assets
- Modern, easy to use, web-based UI
- Powerful report creation and analytics
- Big-data enabled and inbuilt security

Usage examples
- Regulatory reporting
- Supervisory monitoring and control
- Operational efficiency & KPI tracking
- Location tracking
Electronics

The WRM247+ device provides versatile communication methods in a rugged IP65 enclosure. The electronics can be customized to meet your requirements.

Server

The WRM Server is Big Data enabled and handles the configuration and deployment of functionality throughout the system. Additionally it provides analytic capabilities.

Terminal Application

The WRM247+ Terminal Application handles the monitoring and control functionality and can be integrated to your products to enable remote management functionality.

Security Gateway

Access remote sites securely with WRM. By clicking a button in a web browser a user can establish a secure connection which also other applications could utilize.

Desktop Designer

Create content for your needs by utilizing the web-based WRM Desktop Designer. Add new UI elements and connect them to system data with ease.

Desktop

The modern, web-based WRM Desktop is the interface for end-users. The Desktop can be fully customized to match your monitoring and control needs with the Desktop Designer.
Modern visualizations of OPC process data
Build, deploy and manage your interfaces in a web browser
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Web based user interface and report designer

Design user interfaces and reports

Visual programming for advanced tasks
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Combining OPC and Big Data

- Store all process and statistical values in a Big Data cluster
- Analyze historical data to identify operational improvement potential
  - Inbuilt web-based analytic client
  - Interface big data with R
- Model predictive, preventive or condition based maintenance scenarios
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Report and advisory creation

- Enabling experts to create reports or advisories
- Utilize data to build a service business
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Enabling technology

WRM Desktop
- Web client
- Web client
- Web client

WRM Server
- Web server
- Big Data
- Analytics

Data Acquisition
- OPC UA
- OPC Classic

Server Platform: JAVA EE
Operating System: Application Server
Relational Database: Platform
Ecosystem Integrateability

Integrates with:
- WRM Server
- WRM Desktop

Ecosystem includes:
- REST
- WebRTC
- WebSocket
- Oracle Weblogic Server
- IBM Websphere
- Oracle
- MS SQL Server
- IBM DB2
- MySQL
- PostgreSQL
- WebServices
- JMS
- RDB
- REST
- Apache Hadoop
- Apache Spark
- R statistical computing
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Conclusions

- Create and deploy modern user interfaces utilizing OPC in minutes
- Analyze historical data to strengthen service business
- Share information through dashboards or reports
- A platform to empower automation or industrial experts to create added value
Thank You! Any questions?

Please also visit our stand or wrm.fi for further information.