

Viewing ahead

TopKapi

vision

SCADA Software
Process Control
& Monitoring



The AREAL logo features a stylized green and orange roof-like shape above the word "AREAL" in a bold, sans-serif font. The "A" and "R" are green, while the "E", "A", and "L" are orange.

SUPERVISION FOR ENHANCED PRODUCTIVITY

- How can you respond promptly to gain performance?
- How can you ensure control over your process at all times?
- How can you have real-time access to all the information on your industrial facility?

A genuine productivity enhancer, the TOPKAPI supervision software handles the tasks requested to process information, letting you focus on priorities : the operating strategy of your process.



KNOW-HOW & DURABILITY

Through over 20 years of innovation, AREAL has constantly perfected its TOPKAPI software, turning it into one of the most advanced industrial SCADA software in the world: high processing power, reliability, easy implementation.

With thousands of copies installed, TOPKAPI is used both by direct operators as well as engineers and automation specialists designing and developing industrial applications.

Running on the Windows® operating system, the de facto standard, TOPKAPI extends beyond fashionable concepts, providing users with means to integrate supervision into the global corporate information processing chain: shared databases, MES and ERP systems, Web access, etc.

Sylvain Starck, Development Manager, in charge of global design, explains: «The added value offered by TOPKAPI is not on screen, but extends far beyond: we ensure that regardless of their power, functions and processes are seamless to the user, who mostly requires a result.»

HIGHLIGHTS

TOPKAPI is particularly appreciated for its high-quality graphics (synoptic diagrams) and application generator (SOFTLINK concept), its client/server and redundancy mechanisms, and for remote communication management.

Thanks to its calculation power and built-in functions, it can be used to create applications by easy parameters setting, without the need for laborious programming.



SOLUTIONS

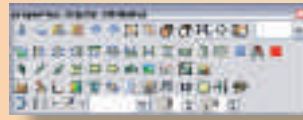
The range of TOPKAPI software offers a solution to all user needs, from a basic graphic display for workshop control to redundant applications and architectures controlling several dozens of interconnected stations.

- ➔ **COMMUNICATION** local or remote, through field controllers and devices
- ➔ **ALARM and FAULT** processing
- ➔ **CALCULATION** and data formatting
- ➔ **LOGGING** events and measurements («black box» function)
- ➔ **DISPLAY** with **GRAPHIC EDITOR**
- ➔ **OPERATING STATIONS** local and remote

MIMIC DIAGRAMS

View in the blink of an eye

- Built-in editor (vector and bitmap)
- Multiwindow
- Online configuration
- Object oriented
- Object library with inheritance
- Simultaneous opening of several applications
- Objects with a «faceplate» detail window
- True color (24 bits) animations
- 256 layers, with visibility management and operator locking
- Advanced zoom features - Panning - Decluttering
- DXF file import (Autocad)



GRAPH TRENDS

View the history

- Integrated to synoptic diagrams
- Access performances
- Easy on-line modification
- Entry of calculation formulas on the fly
- Zoom, comparison, etc.



REAL-TIME DATABASE

Process and Compute

- Acquisition
- Spreadsheet views
- Calculations by basic formulas - no programming
- Over 150 calculation and system functions
- Remarkable calculation performance thanks to precompiling process
- Alarm and archive management
- Fully configurable reporting, HTML support, fax, and email distribution
- SQL & ODBC connectivity
- OPC server

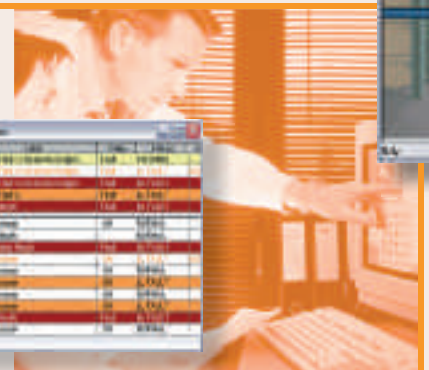


ALARMS - EVENTS

Prioritize information

- Views created and modified «on line»
Selection - Presentation
- Modes: show faults, log, constant
- Powerful summarising functions
- Filter-based selection on any criteria, based on DBMS engine
- SQL interface
- Distributed views merging data from several server stations.

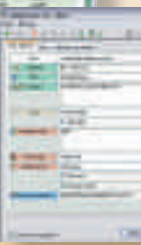
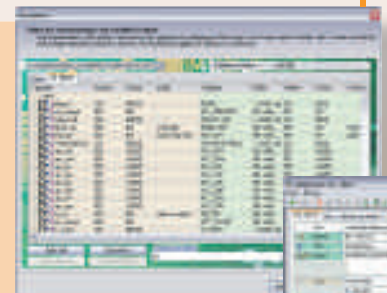
Time	Event	Description
10/10/2000 10:10:10	ALARM	Pressure too high
10/10/2000 10:10:15	EVENT	Temperature too low
10/10/2000 10:10:20	ALARM	Flow rate too low
10/10/2000 10:10:25	EVENT	Level too high
10/10/2000 10:10:30	ALARM	Valve position error
10/10/2000 10:10:35	EVENT	Motor stop
10/10/2000 10:10:40	ALARM	Power supply failure
10/10/2000 10:10:45	EVENT	Communication error
10/10/2000 10:10:50	ALARM	Control signal error
10/10/2000 10:10:55	EVENT	Device failure



CONFIGURATION

Implement efficiently

- Simple and intuitive configuration, accessible to all
- Online configuration
- Structured objects with inheritance
- SOFTLINK : application generator
 - Unique automation database
 - Self-configuration
 - Reduced development and test costs
 - Automation of application parameterizing
 - Specialty customisation of the interfaces
- Simulator to test applications offline



RECIPES

TOPKAPI does not require using a separate software package to handle recipes or any coordinated processing of a set of manufacturing parameters (ingredients):

- Value groups (composition)
- Execution sequences - succession of procedures and phases
- Batch processing

Use TOPKAPI in the following processes, without complex scripting languages:

- Enter and record recipe parameters
- Embed separate functional elements (subrecipes)
- Send manufacturing orders to the controllers
- Get and record manufacturing data (traceability)
- Use SFC to control the processing tasks

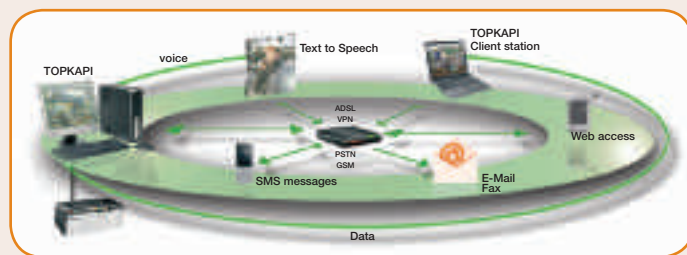


SUMMARIES

Production reports, Overall Equipment Effectiveness, pace, quality monitoring and objectives, availability and faults, operating time, number of starts, maintenance, etc.

In TOPKAPI, a few mouse clicks are enough, without programming nor testing many counters, to produce summarised calculations from supervision logs and transfer the results into EXCEL® spreadsheets, HTML or other tools.

Amazingly easy to use, it enables you to focus your attention on presenting and analysing data. Synopsis functions over time, time and event counting, averages, min, max, integer, typical deviation. Automatic consolidation over time on periods of your choice, from hour to year, over time ranges, validity ranges, etc.



REMOTE NOTIFICATION OF ALARMS

In the absence of a local operator, this module forwards alarms to remote operators.

The operator acknowledges the call cycle, then operates remotely (viewing and command) or goes to the plant.

The calendar handles the schedules, replacements, derogations, and the processes attached to the various natures of the faults. Unlike add-ons, full integration of the on-call function into TOPKAPI provides very easy configuration and maintenance, without repeating the information entered or changed.

All the information for following up the transmission of messages is accessible within TOPKAPI.

REMOTE MANAGEMENT

For RTUs or any equipment not connected permanently (telephone or GSM network, Internet, etc.), TOPKAPI handles data which is time-stamped at the source without specific setting, transparently as if acquired in real time.

Integrated management of modems and periodical connections, and self-configuring capability also contribute to justify its reputation as a reference product in all remote management applications.



- A tool for each need
- Total openness to networks inside and outside the factory
- High security



NETWORK

True application client/server

Data is unique and always provided by the server hosting it. Changing an application requires no intervention on other stations (client, web server, ...)

A few mouse clicks are enough for a TOPKAPI client to log onto a server's application. It is optimised for all networks, and supports PSTN, GSM or GPRS modem links (synoptic diagram displayed in less than 2 seconds through a modem link).

With 100% TCP-IP compatibility, TOPKAPI is designed for seamless integration into the global architecture of forward-looking companies, i.e. IT, production, MES, ERP...

ARCHITECTURE

Server Station

(Acquisition, Processing, Operator Interface)

Client Station

(Display and Control by connection to server stations)

Permanent Client - Netview
Thin Client (downloadable) - Open Client

Web Server

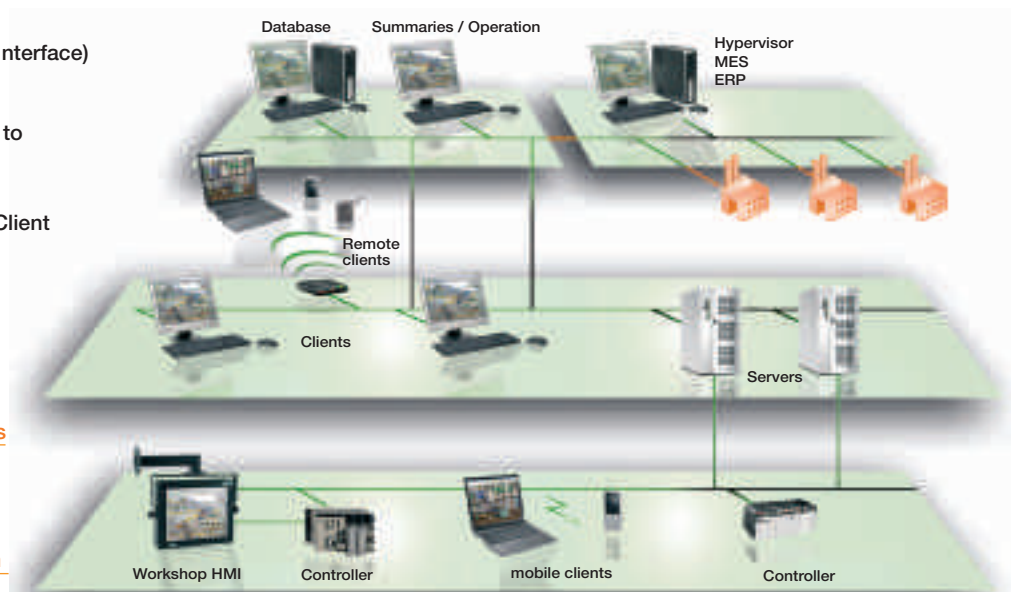
Internet Explorer Thin Client

Terminal Services Thin Client

Redundancy, distributed applications

Workshop control panel

Remote management Master Station



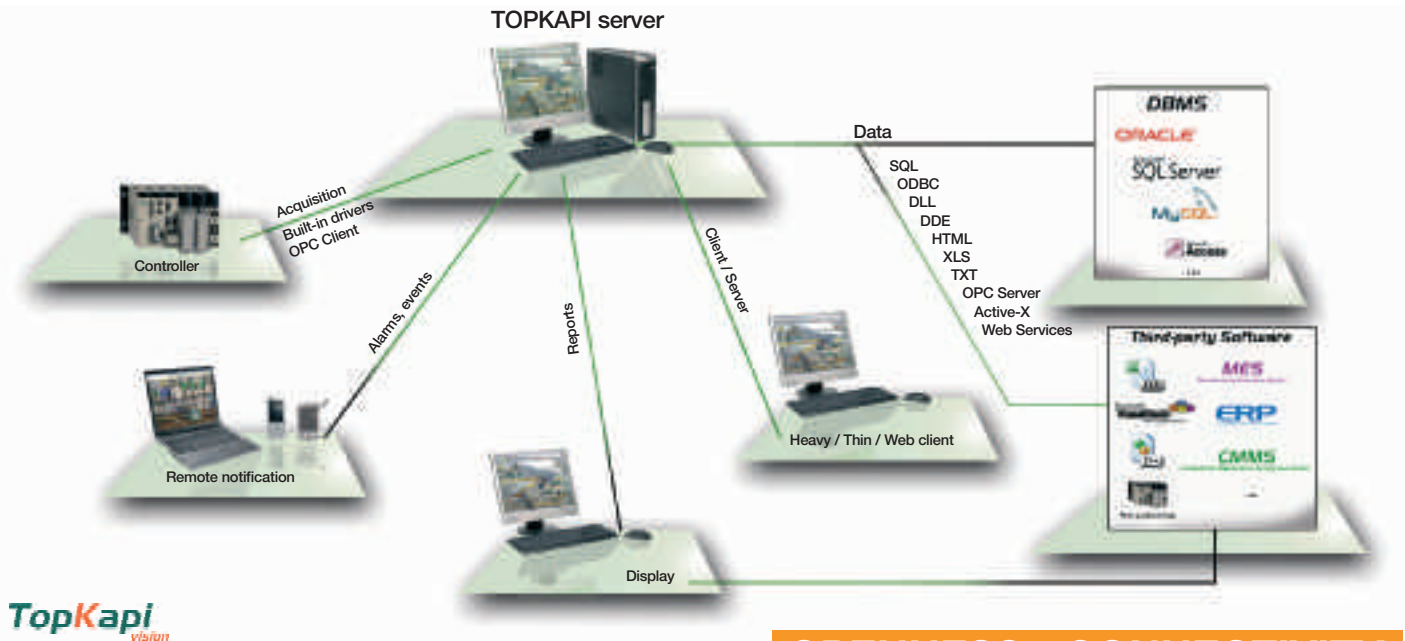
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REDUNDANCY

- Fully integrated, reduced parameter setting
- Automatic hot switchover
- Distributed processing
- Complete uniqueness of data, logs, context, internal variables, acknowledgments, etc...

WEBSERV

- Currently the best means to deploy an animated graphics application over the Web, supervision or ordinary portal
- Installation within a few minutes without any modification of the basic application
- No Web skills required for implementation (network specialist advice recommended only for architecture and security)
- All TOPKAPI applications are compatible



OPENNESS - CONNECTIVITY

Characteristics

Hardware

PC type computer, standard configuration for Microsoft Windows®.
Detailed information on www.arel.fr/PC/

Communication

Several hundreds of protocols available over Ethernet, TCP-IP, RS232-422-485 serial links, modem with standard or specialised hardware, communication drivers specific to TOPKAPI, or OPC, SNMP, DLL, DDE, etc.

Development

Development tools not copy protected. Therefore, they can be installed on both the development site and operating site without additional licence.

Dynamic link with controllers' development / configuration software through the SOFTLINK wizard.

Limited versions from a few dozen to unlimited number of variables (several hundreds of thousands).

Ascending compatibility with all previous versions.

Ability to develop communication drivers.

Dynamic language selection.



Applications

Manufacturing : Manufacturing, conveying, handling, palettisation.

Processing : Heavy and fine chemistry, manufacturing, storage, conveying, handling

Agro-food : Handling, storage, process, records, cold chain
Water and sewerage: drinkable water production, treatment stations, pumping stations, telemetry, remote supervision

Infrastructure - Transport : highways, train, subway, river navigation, airports, luggage handling, air and sea navigation beacons, remote management, lighting, lifting.

Energy : Production: thermal plants, nuclear, hydroelectric, windmills, solar energy, transport, co-generation, networks.
Consumption: analysis, summaries, optimization, load shedding.

Building : technical management BMS-CTM, HVAC (Heating, Ventilation and Air-Conditioning), fire, intrusion and access control, water, lifts.
Energy efficiency, lighting.
Home automation, parking lots. Remote management.

Local authorities, hospitals, hotels : building, boiler rooms, public lighting, water and sewerage, waste.

Environment : waste, quality control of water and air, hydrology, meteorology, data collection.

Commercial and support services

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