

SWM Supervisor

Supervision and Automation Solutions

IT suite based on a modular and flexible enterprise web portal, which combines the typical features of the collection and reporting of production data, a set of tools that simplifies the plant management and control in order to improve productivity, safety and cost containment, guaranteeing an excellent return on investment. Open and flexible, it is suitable to any application field.



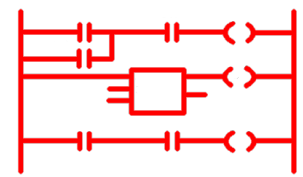
Dashboard



Monitoring



Maintenance



Plant Logic



Energy Management



Video Surveillance



WEB and Mobile



Modular and Scalable

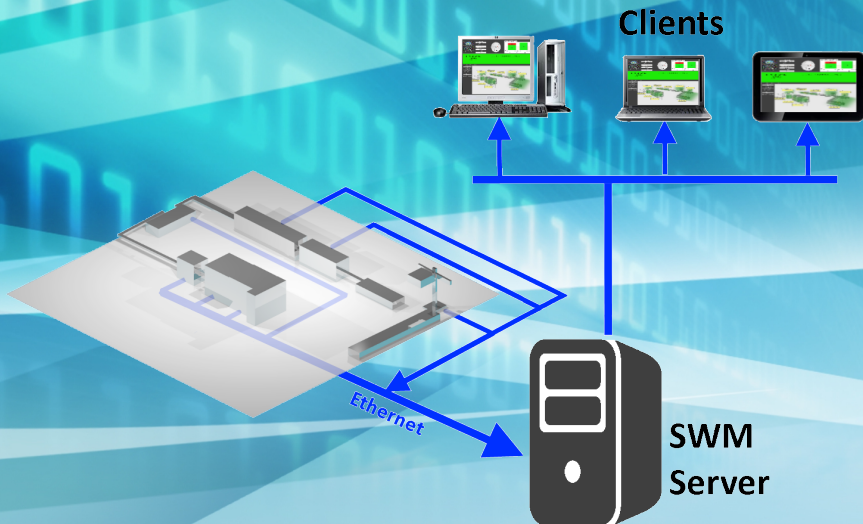
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SWM Architecture



Hardware

- Modbus TCP port on the machine
- Data collection via I/O (optional)
- Network hardware
- Wifi for mobile devices
- Physical or virtual server

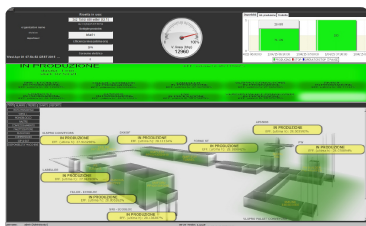
Software

- SWM suite
- SWM Database
- Web browser on Clients

Achievements for the customer:

- ✓ Identification of the main causes of downtime
- ✓ Increase of the overall efficiency
- ✓ Cut-down on plant maintenance overall time
- ✓ Cut-down on changeover times
- ✓ Structured reporting for inter-functional analysis and decision making
- ✓ Total payback of the investment in less than one year

Screenshots



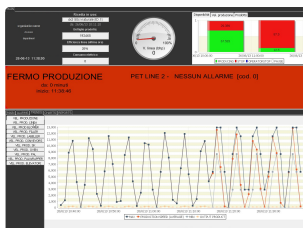
Plant synoptic



Alarms sequence



Availability diagram

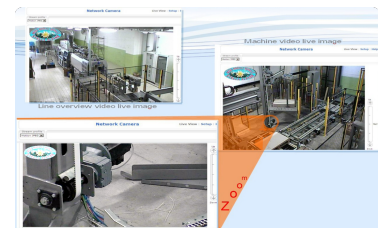


Reporting

A screenshot of the SWM software showing a table titled 'HOURLY PRODUCTION REPORT'. The table has columns for 'Time', 'Line', 'Production', 'Downtime', 'Availability', and 'Status'. The data is presented in a grid format with green and red bars.

Time	Line	Production	Downtime	Availability	Status
2010-01-01 00:00:00	Line 1	100	0:00	100%	OK
2010-01-01 01:00:00	Line 1	100	0:00	100%	OK
2010-01-01 02:00:00	Line 1	100	0:00	100%	OK
2010-01-01 03:00:00	Line 1	100	0:00	100%	OK
2010-01-01 04:00:00	Line 1	100	0:00	100%	OK

Reporting



Video Surveillance

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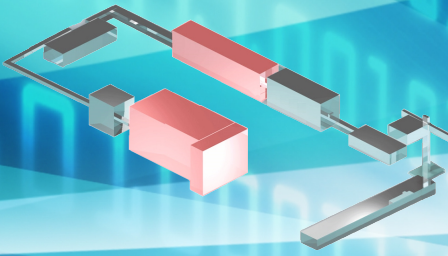
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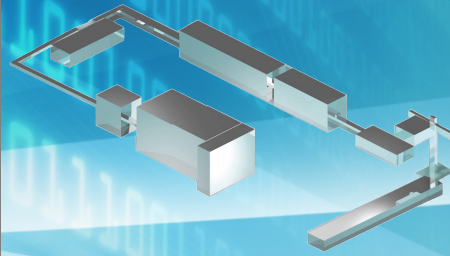
Solutions

SWM BASIC



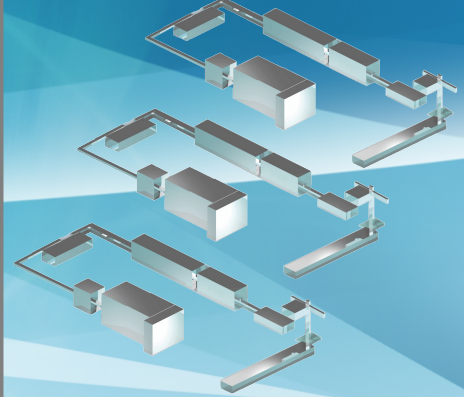
- Up to 10 systems connected
- Small plants or supervision of key machines only

SWM STANDARD



- Up to 20 systems connected
- Small/Medium Plants

SWM PREMIUM



- Up to 30 systems connected
- Big Plants

Common features

- 1 General synoptic
- 1 SCADA page per machine
- 1 Alarm management page
- Standard reports
 - OEE
 - Downtime causes

Optional Modules



Recipes manager

Centralized automated module to provide recipe change solutions; besides activating the required recipe on a single machine, it allows to combine automatic actions (ex. automatic change of label on encoders) and management of directive instructions to operators



Plant Maint

Module for the scheduled maintenance of machines. It is meant to activate and schedule single intervention requests based on machine cycles and operating times, likely combined with given conditions collected through process variables. For each intervention, documents and HMI pages of support to the operator can be provided



Plant Master Basic *(under development)*

Module for the management of plant automatic control logics designed to blend in and optimise the cooperation between machines. Dynamic features are available based on past behaviors by means of vision and artificial intelligence algorithms, with the main target of increasing overall efficiency



Energy management

Module for the collection of electric consumption data (or any consumption data) of each machine or plant section, by means of specific counters connected to the supervision network. Consumption data are stored by SWM and made available through custom reports



Web Portal Lan

Module allowing for:

- remote monitoring of the plant via web
- remote control of the machine operator panels via web
- video surveillance
- centralised distribution of e-docs
- management tools for the communication relevant to internal organization



Video Surveillance

Module for the integration of images coming from surveillance cameras into the plant synoptic or into a specific SCADA page, for an overview of the critical plant areas

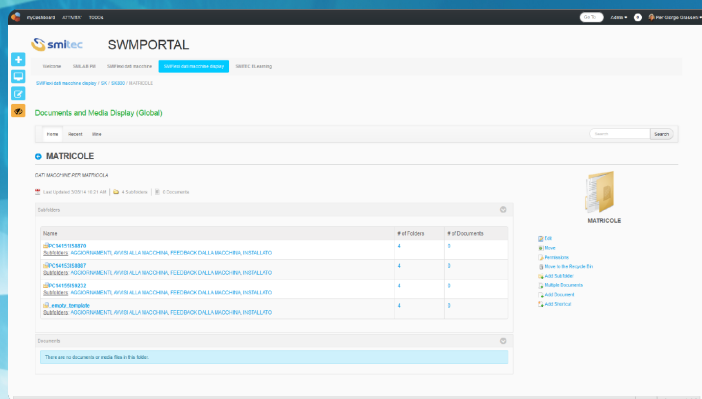
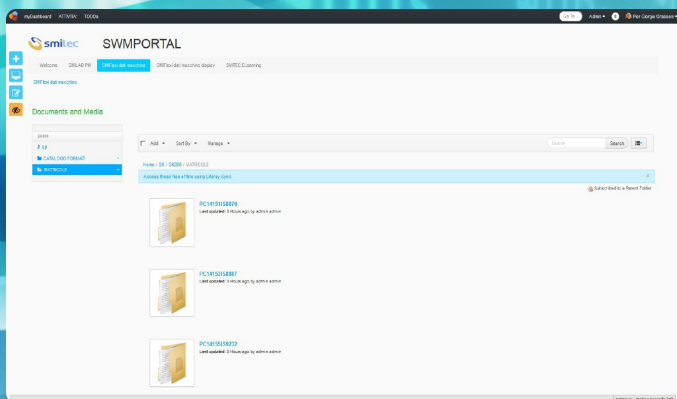
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SWM Portal - Solution for OEM



SWMPORTAL is an advanced web portal IoT (Internet of Things) oriented. This kind of application is mainly a collector and distributor of data meant to be managed and transferred via web, so as to be easily accessible by people, systems and other IT applications on the web and company intranet. Further to the current evolution bound to IoT (Internet of Things), the company own products and services will become autonomous creators and users of such data via web.



Users database

Users database for the management of the authorizations and accesses to the portal



Team work tools

Authorized users can work in team by means of tools like: public and private web pages, interactive boards, insta messaging, Wiki, FAQ and much more



Portlet

The use and development of Java Portlet enables to customise the portal, providing vertical solutions based on specific requirements



CMS

Central repository of company docs (electrical diagrams, drawings, softwares, settings) and of field docs (reports, logs, infos for troubleshooting, images, videos)

Services

- Customisation
 - Layout editing of HMI pages provided with the basic release
 - Development of new HMI pages and reports based on customer's requirements
 - Editing and development of new reports upon customer's request
- Development of control and supervision logics based on customer's requirements
- All-inclusive solution supply:
 - Analysis of customer's requirements
 - Network hardware design
 - Supply and installation of network hardware
 - Installation and start-up of SWM
 - Development of custom features

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