# **ELVAC**

Company Maintenance Production Monitoring Capacity Planning Information Systems Data Visualization



FOR PRODUCTION



www.elvacsolutions.eu



#### SOLUTIONS, PRODUCTS AND SERVICES

We develop control, monitoring, geographic and information systems for the aviation, military, water management, industry and power engineering. We offer turn-key solutions as well as plug-and-go development.

We analyse business processes, their modelling, prototyping and support via information systems. We provide certified service to all the product we deliver, up to the 24/7 scale

#### PARTNERSHIP / ELVAC SOLUTIONS s.r.o

- ✓ Silver integrator of the CitectSCADA product
- ✓ Holder of the Golden Competence for Microsoft-based Data Analysis
- ✓ Holder of the Silver Competence for Microsoft-based Application Development
- ✓ Holder of the Silver Competence for Microsoft-based Data Platforms.
- ✓ Authorized partner of PHILIPS SignageSolutions
- ✓ Certified supplier of Hewlett-Packard components.



### **OUR SOLUTIONS FOR PRODUCTION**



#### QUALITY

The quality of the solutions and services we provide is guaranteed by the following certifications:



Quality management system for the development, production, sale and maintenance of control, monitoring and information systems.



Application and solutions of technical information, industrial, monitoring and geographic information systems.



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**Civil Aviation Authority certification** Licence to develop, manufacture, install, maintain, repair and modify aeronautical ground equipment.

Service and support of control, monitoring and

information systems.

### SERVICE

Our work does not end with the delivery of the work or product. We provide the following services to our customers:

- Technical support within the Service Agreement, up to the 24/7 scale
- Telephone assistance to end users within the Hotline service.
- Provision of technical support via the Subscription service.
- Supervision and monitoring of the delivered software or hardware equipment.
- Specialized training for all our solutions and systems



A modern production company today cannot manage without an effective information system. Company information systems vary according to the character of the data to be processed.

The MES/MOM information systems monitor the means of production and administration of the company. The CMMS/EAM systems provide maintenance and administration of the company's equipment and APS systems plan deal with production capacity planning. ERP systems manage the control of company processes and Digital Signage solutions can be used for the presentation of data from all these systems.

We have our own solutions for the aforesaid areas, described on the following pages.

Company data VISUALIZATION



PLUG-AND-GO DEVELOPMENT



**PRODUCTION CAPACITY PLANNING** 



MAINTENANCE CONTROL AND PLANNING

## **iMPROVE iT!**

**PRODUCTION PROCESS CONTROL** 





#### **Digital Signage**

Connection to any source of company data and their visualization via implementation of the **InfoPanels** information system.

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A complex solution of a plug-and-go information system via implementation of a customized solution using the **ELVAC RESOURCE PLANNING** modules.

#### **APS/MRP**

Production capacity planning via the CAPACITY CUBE system.

#### CMMS/EAM

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Administration of property and company maintenance control via implementation of the **TechIS** system.

#### MES/MOM

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**iMPROVE iT!** – a modern production information system for production control and monitoring.









## **iMPROVE** iT!

### **PRODUCTION PROCESS CONTROL**

USE

**iMPROVE iT!** is a modular MES/MOM production information system that allows you to integrate all the company data and to set processes that improve labour productivity.

- On-line data collection from machines, production equipment and production divisions
- On-line production control
- Strict adherence to the production procedures
- Connection to ERP and other company systems
- Lean and paperless production
- Quality control and assurance
- Production visualization
- OEE, SPC and other key production indicators
- Analyses and assessments
- Monitoring of energy efficiency of the production and
- the entire facility management
- Warehousing visualization and management



PRODUCTION

**ANALYSES** 



ATTENDANCE

**OEE** 









WAREHOUSE



Chemical, food-processing,

plastic industry

Engineering, series

pharmaceutical, electrical and

production and automotive

Utility – namely in the field of

production monitoring

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#### **IMPLEMENTATION REFERENCE**

#### Implementation of iMPROVE iT! in Creative Caps s.r.o.

The introduction of the system significantly influenced the promptness and quality of information transfer between the company systems (iMPROVE iT! – ERP – attendance system) and their users. It replaced the complicated register of orders in the MS Excel application and enabled monitoring production in real time, order status, machine use, employee performance, duration and causes of downtime, adherence to production procedures, recording non-compliant products and so on. The integrated solution also included the delivery of all the hardware, i.e. server, machine terminals, and data collection units.

The company management decided to expand the system with production planning and warehouse management modules in the future.







#### COMPANY MAINTENANCE PLANNING AND CONTROL

The TechIS information system is a modern solution for planning, control and reports of the maintenance of machines, equipment, car fleet and property in general.

It provides users with permanent access to important information and thus helps to save on and better control maintenance.

- Register and administration of property, people and organizational units
- Well-arranged maintenance planning
- Reduction of downtime and failures
- Optimization of warehouse stock of spare parts
- Automatic filing of maintenance orders based on machine signals
- Modern mobile access to property administration and maintenance execution
- Asset identification and maintenance execution vie QR codes or NFC chips
- Permanent availability of important documents
- Generation of analyses and reports
- Paperless operation (replaces paper journals)
- Ready for Industry 4.0 (connection to production systems)



#### USE

- Companies with own production equipment
- Companies providing external maintenance services
- Companies managing both movable and immovable property

#### **IMPLEMENTATION REFERENCE**

#### Implementation of the TechIS system in Therma FM, s.r.o.

The company involved in the production of wound cores lacked an effective tool for planning and controlling preventive maintenance and documenting the performance of maintenance tasks for customer audits.

The TechIS information system replaced Microsoft Excel charts and other paper records, such as calendars and notes. Thanks to the implementation of the TechIS system now allows to create a long-term plan of preventive maintenance, to record and monitor all service activity in a transparent way, to keep records of performed revisions, and to present this information during customer and technology supplier audits, as well as to monitor the costs of maintenance and the inventory level.





## CAPACITY CUBE

#### **PRODUCTION CAPACITY PLANNING**

The **Capacity CUBE** system creates data cubes based on input data as various views of the current production status and subsequently allows to perform simulations above the cube and check the impact of production process adjustments on the overall production capacity, the available capacity of the individual workstations, and other metrics.

The current implementation of the system provides:

- reports on overloaded and oncoming overloaded workstations,
- maximum workstation capacities by pieces,
- maximum workstation capacities by the number of assembled components,
- impacts of production times and capacities changes on defined KPIs,
- automatic generation of simulations during input data updates,
- production plans archiving,
- safety categorization.

All the outputs reflect the simulation set by the user and provide a quick look at the impact of changes in plans with regard to the utilization of the workstation, the necessity to add a workstation and so on.



#### USE

- Production companies
- Series as well as customized production

#### **IMPLEMENTATION REFERENCE**

#### Implementation of PRODUCTION CAPACITY PLANNING in Continental AG

The system creates data boxes based on input data (from SAP, MS Access, manually managed MS Excel files, logistic data) that allow the following simulations:

- changes in time of the individual operations and production capacity,
- changes in the line/equipment configuration,
- division of a project/product into several lines,
- transferring a project to a different line,
- changes in the shift models of the workstations,
- simulation of the impact of changes in operation times on KPIs.

The implementation of Capacity CUBE also includes the option to define and archive labour safety categories at a specific workstation and workstation administration (filing, transfer and removal). Management report automatization.







Huisman Resource Planning

#### **CUSTOMIZED COMPANY INFORMATION SYSTEM**

The integrated solution of a company information system (ERP) is designed for organizations that are looking for a plug-and-go solution that would cover the company's entire production-operation cycle.

The modules of the ERP system we have developed cover the areas from order acceptance to its delivery to the end customer, including the supporting processes. The integration with third-party systems used in the company provides for an effective automation of the entire production process and significant economy in time.

The offered solution includes modules for project management, financial planning, capacity planning, technological preparation of the production, procurement and subcontracting planning, logistics, production, quality control, project and production documentation control, vendor rating and more.



#### **KEY FEATURES**

#### Project cost control (Controlling)

- Budgets (Budgeting)
- Cost accounting
- Financial planning (Forecasting)

#### **Employee planning**

- Paid time off and assignments
- Worksheet

#### Warehouses and stock management

- Procurement of material, components and services
- Production planning
- Intercompany transport and dispatch
- Project management
- Vendor rating
- Quality control
- Maintenance control, CMMS/EAM (TechIS)

#### Pricelists

- CRM
- Order processing

#### **IMPLEMENTATION REFERENCE**

#### Implementation of HRP in Huisman

The platform of our ERP system is currently used by Huisman Konstrukce, s.r.o., a company with a lot of experience in the field of the design and production of heavy machinery (lifting and handling equipment) for global leaders operating on land and sea. Our ERP system provides:

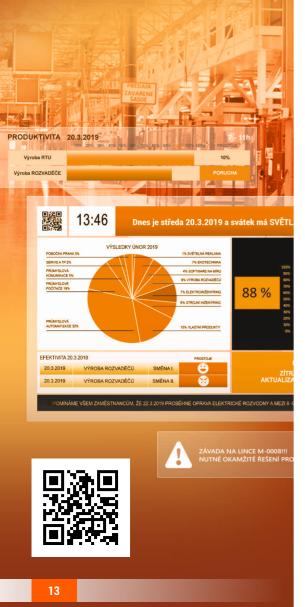
- quality documents for decision-making of the management,
- same information for all system users,
- greater pressure on adherence to production procedures (processes),
- integration with other company systems accounting, attendance, production and logistics, marketing and trade.

The ERP system solution also includes other general modules, mainly supporting the executive production overview, security and user comfort.

- System security (users and roles) authentication and authorization
- DMS document and drawing set administration
- Reporting (print reports and analyses)
- Notification system
- Automatic distribution of print reports
- KPI performance indicators
- User filters, views and heading
- Change auditing









#### **COMPANY DATA VISUALIZATION**

The InfoPanels system is an exceptionally effective tool for a fast, simple and reliable data presentation. Its reliability makes it suitable for use in various industrial businesses, at offices, schools, shops or hotels.

In the production, the system can display information about the current order status, plan fulfilment, operating information for employees, or representative welcome to important visitors.

- Administration of all screens from a single place
- Option to create own screens
- A large quantity of data sources
- Data presentation in real time (KPI, OEE...)
- Supports all commonly used multimedia formats
- Passive and interactive use
- Option to connect to company systems
- Content planning in a well-arranged calendar



#### USE

- Industry and production
- Shopping and business centres
- Authorities and institutions
- Traffic junctions and information centres
- Hotels and congress centres
- School premises



#### **IMPLEMENTATION REFERENCE**

#### Implementation of the InfoPanels system in KENDRION

Kendrion is a renowned global supplier of components in the industrial and automotive field. The InfoPanels system installed in the Prostějov branch supports:

- production material readiness requirement control,
- quality control processes
- company maintenance process visualization,
- notification of employees on changes in documentation, visits and new products.

The objective of the InfoPanels system implementation is to collect information from the various company systems in an automated and unattended manner and to display this information on the screens on the company's premises in a uniform way.



www.infopanels.eu





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