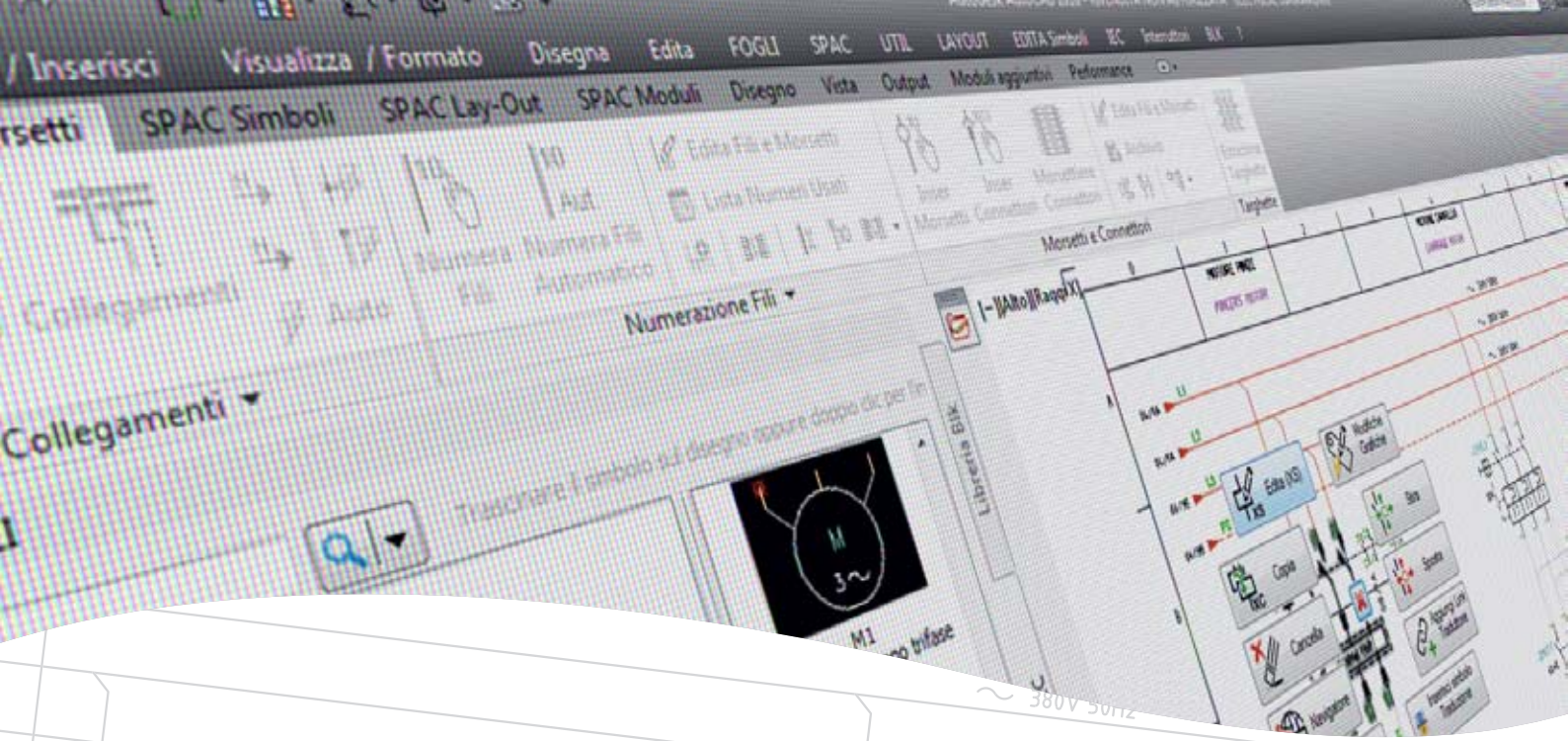


SPAC®

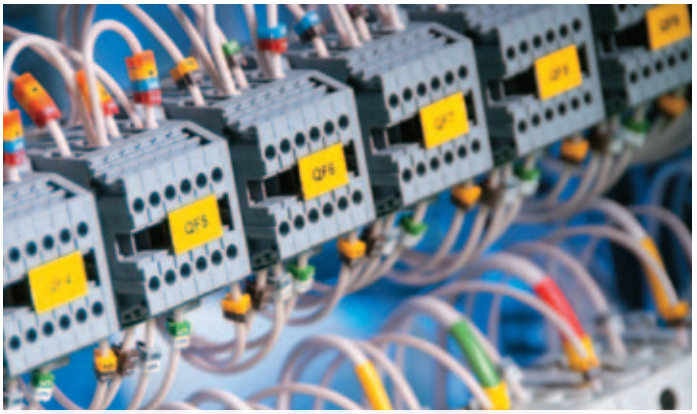
AUTOMAZIONE

Electrical CAD for the design
of Industrial Automation Plants and Special Machines

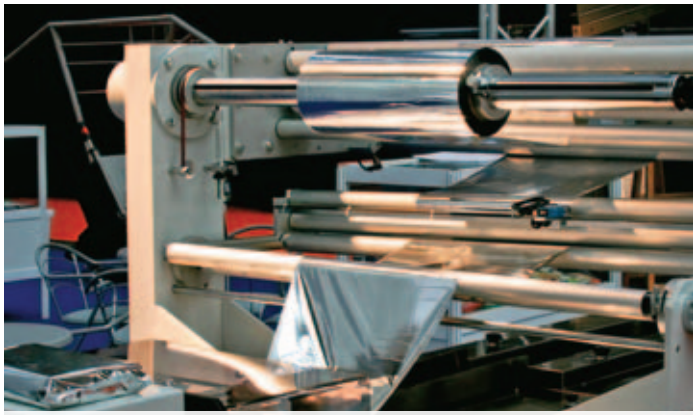
SDProget
INDUSTRIAL SOFTWARE

Software for the design and auto-documentation
of electrical drawings

AUTOMOTIVE

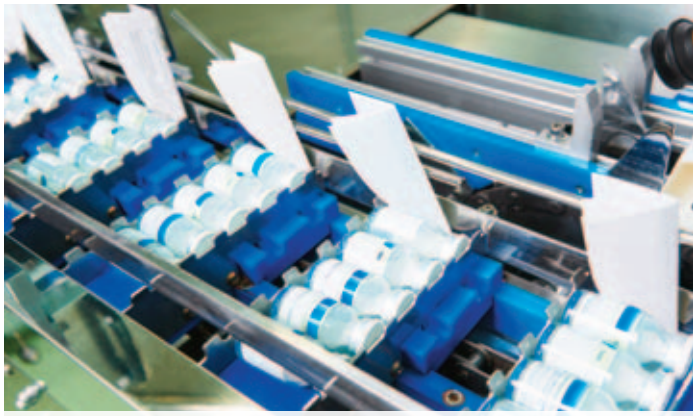


ELECTRICAL PANELS



PACKAGING MACHINES

FOOD PROCESSING

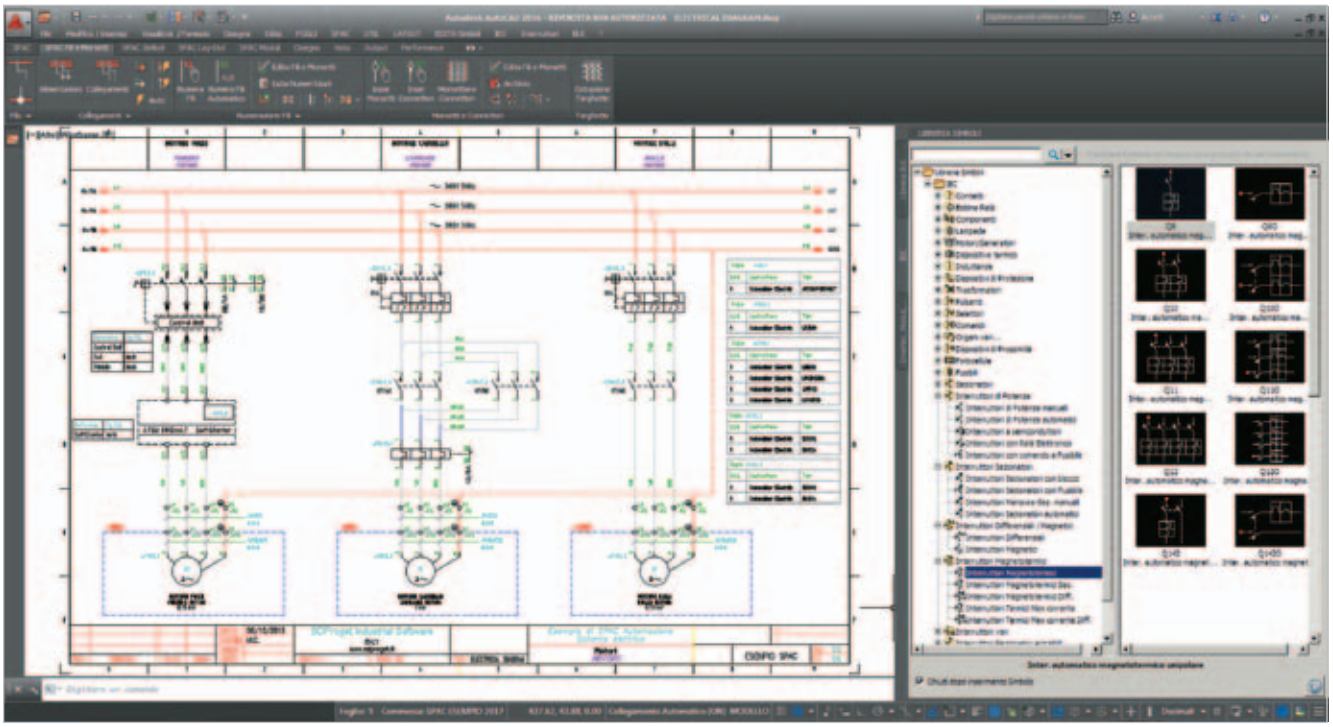


MEDICAL INDUSTRY

TRANSPORTATION MEANS

ENERGY - OIL & GAS

MAINTENANCE



SPAC Automazione

The Electrical CAD used by over 12.000 customers with more than 35.000 installations

Professional

SPAC Automazione© is a professional and flexible design Software that guarantees the maximum productivity while drawing electrical systems and industrial automation plants by means of the automatic creation of project's documentation and technical reports.

Flexible and customizable

SPAC Automazione can be customized and programmed to create schemes by automated processes. End-Users can customize the design environment of SPAC Automazione according to their needs.
The Machinery Configurator feature allows the automatic creation of electrical drawings and the documentation of a standard complex plant by selecting the optional parts / elements required by a specific customer.

Based on international standards

SPAC Automazione uses the most popular drawing standard worldwide.
The Software is entirely developed in DWG, providing the schemes in DWG and DXF native formats.
The project's documentation can also be converted to PDF format with dynamic features that allow the schemes navigation.
SPAC Automazione is considered a standard for the electrical design in Italy since 1988.

Intuitive and user friendly

SPAC Automazione is a simple and efficient drawing system created by electrical scheme designers for special machines and electrical systems designers.

A powerful tool to improve productivity

SPAC Automazione is a powerful tool that automates the drafting, processing and documentation of electrical and pneumatic drawings. Symbols compliant with European and International graphical normative pose no limitations for the execution of projects abroad. Once the electrical scheme is designed, the Software executes automatically all the control processes and creates the documentation.

REASONS FOR CHOOSING THE MOST POPULAR ELECTRICAL CAD IN ITALY

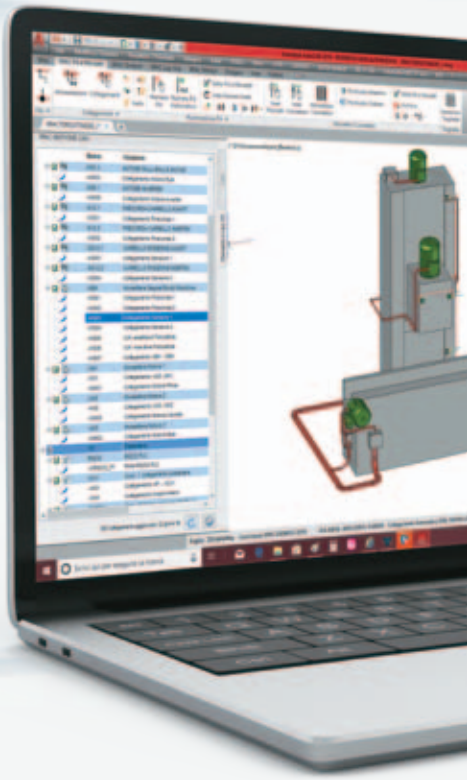
SPAC Automazione is a professional, efficient and modular Software in continuous evolution. Each new version includes a set of innovations and features that increase the program's performance.

Modular and flexible. A system that adapts to your needs

SPAC Automazione is a modular design system that consents different configurations according to the specific characteristics of the project and the designers' activities.
The modularity allows an investment tailored to the project's characteristics.

DWG graphical input. A universal standard

The Software is developed using AutoCAD™ OEM technology, ensuring the international sharing of projects as required in a collaborative environment between different departments and professionals.



Productivity at the highest level. The added-value

SPAC Automazione automates the engineering processing of the electrical drawings, increasing quality while reducing production costs. This translates into high productivity by reducing the time required to draw and document projects with a minimum possibility to make errors.

Integration and data exchange. Software interfaces

SPAC Automazione is an open system that can dialogue with third-party applications:

- Information exchange with label printing Software for the marking of components, terminals and wires
- Interface with documentation management Software as PDM and PLM
- Connection between electrical and fluidic functional schemes
- Data Exchange with Microsoft Office©
- Bidirectional dialogue with PLC management systems and P&ID systems (EsaPro)
- Realtime connection with the electricians in the field with a Smartphone App (Opera4SPAC)

On guard. Always by your side

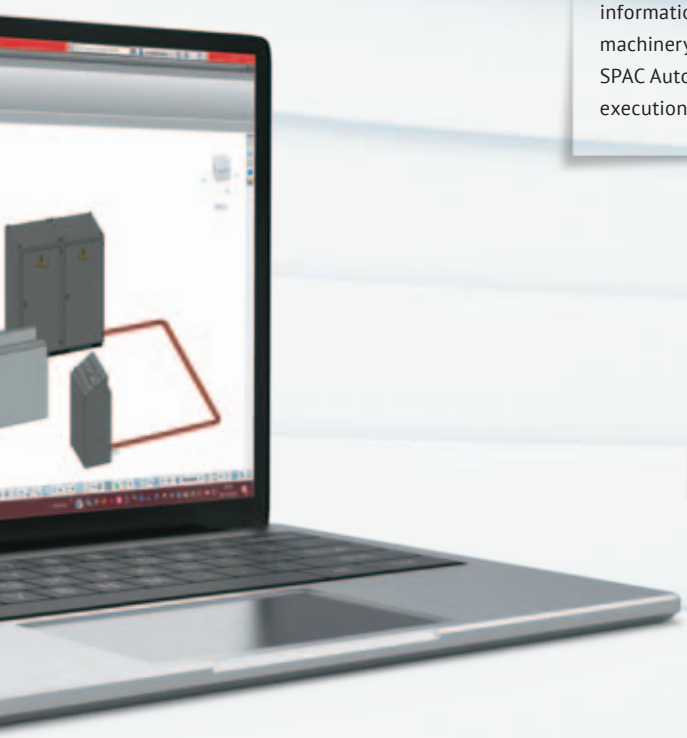
SPAC Automazione is updated continuously with normative changes, technological evolution and new products.
SDProget is constantly besides the customer with a complete set of technical assistance services and training activities to keep in touch with the professional trends in the electrical industry.

Database and archives. The materials library

A complete database of components from the main manufacturers in the Italian marketplace with the possibility to associate the products' codes to the electrical symbols on the drawing.
Products from the main manufacturers are always updated and available in real-time using SPAC Data Web, an on-line materials synchronization service.
Graphically customizable technical libraries with thousands of components: PLCs, Starters, Inverters and special components, all in continuous evolution.

Detailed schemes and reports. The best printings with SPAC

Customers' priorities at first. The goal of SPAC Automazione users is the creation of useful electrical schemes and reports in order to provide clear and reliable information to the operators that will build, operate and maintain the plant / machinery.
SPAC Automazione generates complete and high-quality printings that facilitate the execution of the electrical activities to the professionals involved.



The only Electrical CAD with a Free 30-days Demo trial. Nothing to hide.

There is no better argument than the field test. SDProget provides for free the trial version of SPAC Automazione Software with all the features enabled for 30 days with free technical support.
This is the best way to test and compare SPAC Automazione with similar Software.

Further information in the QR-CODE

NEWS

Assisted dynamic design

SPAC Automazione proposes logical connections when inserting components and designing wires. This speed up the schemes drawing and limit errors.

Components QR-CODE Creator

SPAC Automazione enables the generation of a QR-Code for each component on the plant to access a large amount of information readable by the free **QR-Spac** application (available for iOS and Android). Once defined the QR-Codes, they can be exported to a Label Printing Systems to apply the QR on electrical panels and the related machines.

From the plant layout to the functional scheme

SPAC Automazione is flexible while drafting the project. It is possible to define the plant layout before implementing the functional schemes by following the logical design flow. Information about panels, junction boxes, components, terminal blocks, connectors, and cables will always be aligned, allowing changes in both graphical representations.

From the PDF to SPAC Multi-Sheet (DWG)

SPAC Automazione has a utility to convert PDF files coming from other CADs into DWG files. This allows to get multi-polar schematics in SPAC environment to make changes, annotations and custom prints.

Further information in the QR-Code
www.sdproget.it/software/SPAC_Automazione/Home_SPAC_Automazione.html

The Main Features

- ✔ Multi-Sheets and Job Orders management without limitation on the number of pages

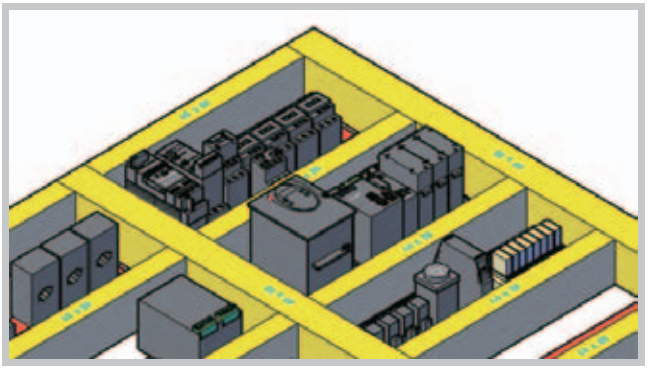
- ✔ Graphical symbols compliant with Normative (IEC, VDE, JIC, Single-Feed, Electronic, etc.)
- ✔ Fluidic and pneumatic schemes
- ✔ Graphical library for Drives, Inverters and Modules
- ✔ Dedicated suite for the fast creation of symbols

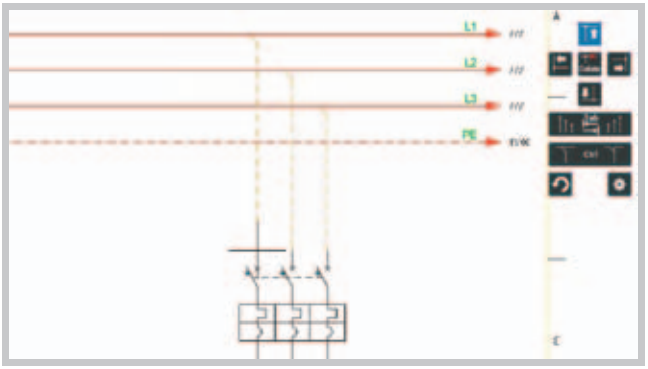
- ✔ Powerful and fast commands for the design of Multi-Polar and Single-Feed functional schemes
- ✔ Assisted Dynamic Design
- ✔ Automatic and semi-automatic wires numbering with the IEC 391 normative marking option
- ✔ Connectors and Terminal Blocks design with jumpers, equipotential and multi-level terminals
- ✔ Cross-Reference with navigation features on diagnostics
- ✔ Dynamic navigator to identify in a fast and easy way the components in the scheme

- ✔ Graphical symbols library of 2D and 3D PLC boards from the main manufacturers
- ✔ PLC I/O drawing from database and graphical symbols with bits import / export features
- ✔ PLC drawing starting from a configuration or an I/O Excel file

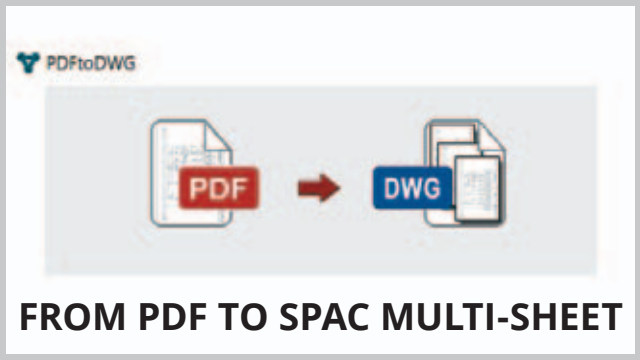
- ✔ Association of materials' codes to electrical symbols with Drag&Drop from a customizable database
- ✔ Materials database constantly updated and synchronized on-line using **SPAC Data Web** (requires the activation of the Global Assistance Service)

- ✔ Creation of customizable and updatable Bill of Materials in the drawing or in a file
- ✔ Documentation of the materials used on the project with PDF Datasheets
- ✔ Use of an estimated Bill of Materials during the design phase





QRSpac available for free in iOs and Android



Download the free QR-SPAC App to see the sample

- ✔ Data export to label printers for the identification of Components, Wires and Terminals
- ✔ Creation of QR-Codes for components
- ✔ Wires and multi-polar cables Bill of Materials
- ✔ Automatic creation of updatable lists and reports: Sheets, Symbols, Functions
- ✔ Electrical panel cabling table
- ✔ Automatic wires routing inside the electrical panel to calculate wires length and optimize paths
- ✔ Design of single-feed schemes with the management of tables and outputs
- ✔ Automatic schemes creation with the Machinery Configurator feature
- ✔ Mechanical design of the electrical panel with accessories (internal and external layout)
- ✔ Assisted design of the panel layout using Drag&Drop from data on the Bill of Materials
- ✔ Automatic design of the push-button panel layout (front and rear side)
- ✔ Design of plant layout: from functional drawings to layout / from layout to functional drawings
- ✔ Loop Diagram - List of connection points from a component on the machine-mounted panel to the main panel
- ✔ Calculation of the panel over-temperature CEI- 17-43
- ✔ Job Order data export and import in Excel
- ✔ Sheets' revision management to save and restore project's status
- ✔ Creation of a dynamic PDF file to navigate the scheme by cross-reference, materials and links to on-line Datasheets
- ✔ From PDF to DWG Multi-Sheet
- ✔ Bidirectional interface between electrical schemes (SPAC) and P&ID schemes (EsaPro)
- ✔ Interface to exchange data between the electrical scheme and the plant/machine layout to calculate the cables' lengths on 3D raceways (Cable Trays)
- ✔ Interface to exchange data with Cabling 4D for the design of electrical harness layouts

OPTIONAL MODULES

- o TRADUTTORE (Translator module)
- o CAVI (Cables module)
- o PDM module
- o C4S module (Cabling for SPAC)
- o CAVI 3D (3D Cables lenght module)
- o PDF 3D (3D PDF creator module)
- o Opera4SPAC interface

SPAC Automazione, an integrated system

SPAC Automazione is more than a Software. SPAC Automazione is a modular and flexible professional system with specialized features that helps designers to face the challenges related to the drawing of electrical schemes for industrial automation plants and special machines.

The flexibility and availability of different modules consent an investment that suits the project characteristics. The optional modules can be purchased when required.

TRADUTTORE (Translator module)

Translation of the text in SPAC Automazione schemes

Multi-Language database with over 1.200 phrases in 7 languages. The text on the schemes can be replaced with the desired language or the translation can be shown below the original text.

The **TRADUTTORE** module manage both the texts on the scheme and on the block's attributes; the designer can then verify or do the translation if it is not present on the local archive.

CAVI (Cables module)

Specialized management of cables and wires

Set of specialized features for the management of multi-polar cables and wires to simplify their definition and increase the design quality. This optional module was developed by specialized technicians with first-hand experience in the cables' design field.

The connections between the components on the electrical schemes are identified and grouped according to the electrical panel associated. Each connection is analyzed and the related information is saved on the drawing.

With **CAVI** module, design errors are reduced and the project documentation is improved. The management of wires and cables is easier and faster.

NEWS

Cables dimensioning according to Norm IEC 60364-5-52:2009.

The following calculations are made according to the load and the maximum drop in voltage acceptable:

- Cable section
- Current absorbed by the load (Ib)
- Maximum current tolerable by the cable (Iz)
- Effective voltage on the load

PDM module

Interface with PDM/PLM Software

Allows the interconnection with files gathering and management Software (PDM/PLM). The module is already operative with Autodesk™ VAULT and the most popular PDM/PLM/ERP Software in the marketplace.

C4S Module (Cabling for SPAC)

The CAD solution for electrical wiring

C4S (Cabling for SPAC) integrates **Cabling** data directly in **SPAC** Bill of Materials to speed up the project documentation. The cables' layouts in Cabling are synchronized with the schemes in SPAC Automazione.

Cabling is the Software for the design of electrical harnesses in multiple fields

CAVI 3D (3D Cables length module)

Cable length simulator for route optimization

CAVI 3D module imports a STEP file in SPAC Automazione to draw easily, with 3D polylines, the cables path in a free point or directly in the plant/machine 3D model.

The module proposes the shortest route and calculates the conductors' lengths.

The resulting 3D scheme is a navigable 3D PDF. The calculated lengths will be listed in the Bill of Materials.

PDF 3D (3D PDF creator module)

Dynamic 3D PDF file with SPAC data

Creates a 3D PDF including SPAC Automazione information to consult and navigate the data in the model.

This document is useful for the cabling of the machine and for the documentation manuals.

The 3D PDF file can be viewed with a simple Adobe Acrobat Reader®

Opera4SPAC interface

Digital schemes in the hands of electricians and maintainers

Opera4SPAC makes schemes available to technicians, electricians and maintainers, whether they are in a plant or around the world, by exploiting the power of the Opera Industry Cloud.

SPAC Data Web

On-line library of electrical components

SPAC Data Web© is a service to keep updated SPAC Automazione database through an on-line synchronization with our Server.

The continuous evolution of electrical materials makes critical the update of the component database to be aligned with industry and market evolution.

A default database with the main manufacturers in the industry will be available installing SPAC Automazione.

During the year, SDProget updates and enriches its database and makes it available on-line so customers can synchronize their local archives. SPAC Data Web service is available only for customers with the Global Assistance Service enabled.

SDProget a complete set of services since 1988

Users of SPAC Automazione Software are supported by SDProget services

Technical Support
Technical experts on the Automation Industry guarantee customers a high-quality assistance with service packages that include phone calls, e-mails and remote connections.

Software Updates
A new version of the program is developed every year to offer a constant technological innovation.
It is very important to keep the Software updated to have the maximum productivity. Customers can select the update approach that suits their needs better.

Constant Software Development
SDProget is engaged in the Software improvement and invests several resources in Research and Development, cooperating with designers on the field to address their drawing challenges.

International Software
SPAC Automazione is an International Software. The program is available in English, Spanish and Italian languages to provide a standard design tool for international projects.

Professional Training
SDProget is a reference for the professional training of its customers. Start-up courses are available after the purchase of a new license to reduce the Software learning curve. Specialized training sessions can also be provided according to the customer needs.

SPAC University
3 days of professional training required to obtain from SDProget the official SPAC design certificate. SPAC University is organized in the main Italian cities and includes theory and practice sessions.

Design Consultancy
SDProget technicians are available for a specialized consultancy to solve complex electrical design issues.

Distribution Network
SDProget is present in the Italian territory with partners that provide technical and commercial support to end users.

SDProget
INDUSTRIAL SOFTWARE

Software for the design and auto-documentation of electrical drawings

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Since 1988 the Electrical CAD solution for industrial automation chosen by over 12.000 customers with more than 35.000 installations

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Edition 01.2019.07