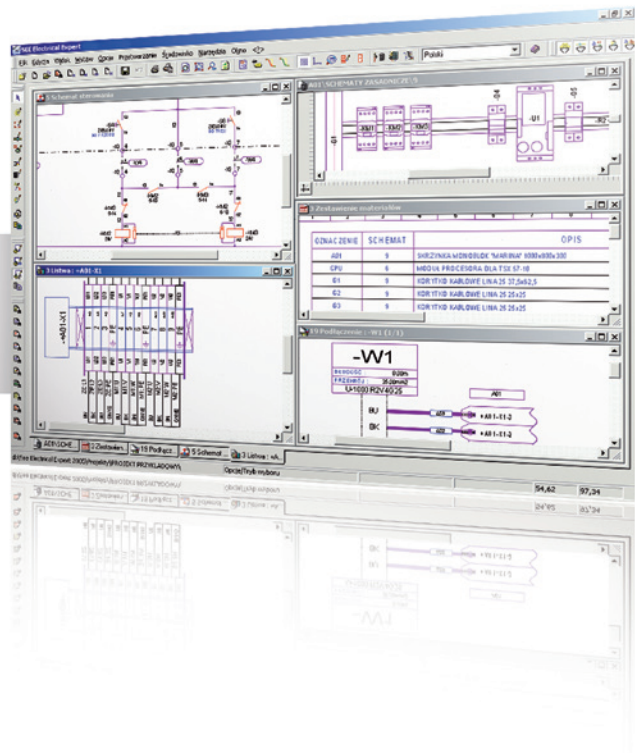




“All the Power of
Electrical CAD dedicated to
Industrial Automation”

see *electrical*[™]
expert
expert



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The CAD Specialist dedicated to
Electrical Engineering, Systems and Industrial Fluids



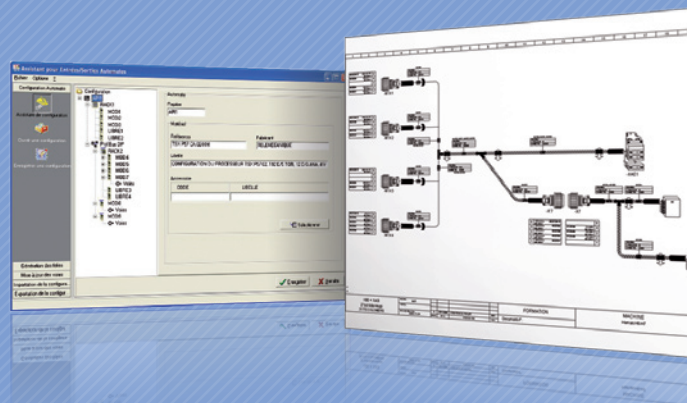
Thanks to IGE+XAO's 23 years of experience SEE Electrical Expert is a breakthrough in the world of Electrical CAD. The most recent version is born from listening to customers' needs and its objective is to optimise productivity whilst being easier to use.

Innovation

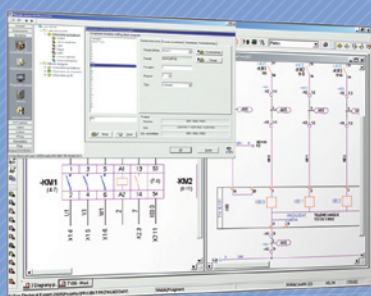
- The «PANEL MANUFACTURING» module enables optimisation of the wiring of electrical cabinets, thanks to advanced wire routing functionalities such as shortest pathway calculation, wireway occupancy rate and drilling plan management. A 3D view is also available.
- The description of a wiring synoptic is enough to automatically generate all the terminal strips and cables, and to re-insert terminals into the schematics.
- The «Harness Documentation» module is an intuitive and easy-to-use tool for designing 2D harnesses and routing the wires and cables in accordance with the schematics.

More Integration and Communication

- SEE ELECTRICAL EXPERT exchanges information with PLC card programming software workshops in order to automatically generate and update Input/Output card layouts. This functionality is particularly optimised for SCHNEIDER Electric's Unity Pro as SEE Electrical Expert has direct access to the heart of this platform.
- Web access to our library of over 450 000 part and manufacturer equipment symbols makes layout and part list creation easier, and enables rapid updating of the equipment catalogue.
- Once the electrical schematic is created in SEE Electrical Expert, it is easy to export and import into Weidmuller's RailDesigner. RailDesigner is a time saving program which makes it easier for you to select, plan and order mounting rails and enclosures with a high level of precision. Data such as terminal data, bridges, markers and accessories are transferred from SEE Electrical Expert therefore contributing to reduce design time.



An immediately operational business package



- More than 1,000 electrical symbols (IEC standard, CNOMO,...)
- More than 900 standard diagrams available (motor starters and corresponding controls, speed controllers, PLC cards,...)
- More than 50 part list templates.
- Dozens of extraction lists available.
- More than 500,000 parts available in the manufacturer databases (ABB, Entrelec, Legrand, MURReletronik, Moeller Electric, Rockwell Allen Bradley, Sarel, Schneider Electric, Siemens, Socomec and Wago...).
- Hundreds of working methods available (symbol tagging, wire numbering formats, terminal strip layouts, connectors, cables, interconnections...).

The basic SEE ELECTRICAL EXPERT module

Professional package

- Creation and modification of electrical schematics
- Symbol manager (creation and modification of smart symbols)
- Project, sheet and diagram template manager through an Explorer
- Index revision management
- Multi-level, multi-user access management
- Automatic definition of connection points according to the cabling direction
- Slideshow in BMP ; JPG ; TIFF ; PCX ; SVG ; CGM formats. Project can be generated in PDF format
- Manual, semi-automatic or automatic component, connection, equipotential and wire tagging, in a user defined format (several formats supplied, with the possibility to create your own formats)
- Compliant with different standards and working methods (IEC standard...)
- Recalculation of all or just part of the project (standard or numbering method change in the course of the project)
- Real-time management of equipotential networks
- Drawing tools
- Real-time cross-referencing management
- Cross-references updating for the whole project (standard or representation change)
- Component choice according to logical constraints (number of used and available contacts)
- Inconsistency management (short-circuit detection, cross-references check up,...)

The additional SEE ELECTRICAL EXPERT modules

External Cabling

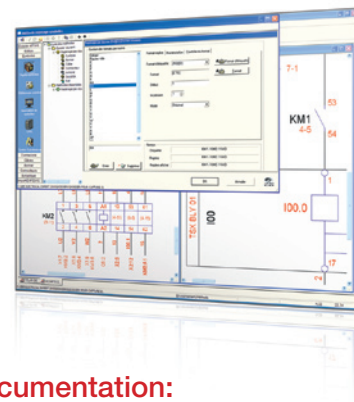
Terminals:

- Terminal strip management
- Manual or automatic terminal and terminal strip numbering
- Various terminal types management (pull-out, fuses, diodes, stepped...)
- Cable selection assistance (types, wire numbers, colors,...)
- Navigation between schematic and terminal strip diagrams



Synoptic:

- TERMINAL module included
- Synoptic installation design (localisation, cable and terminal strip graphical management; navigation)
- Automatic terminal and cable insertion in the schematics
- Automatic cabling
- Multi-connection terminals
- Automatic bridge management
- Connector management
- Inter-enclosure cabling list importation
- Cable lists



Internal Cabling

Cabling:

- Automatic strand symbol creation and insertion on connections
- Graphic cabling list
- Assistance with the cabling of complex installation

Harness Documentation:

- Logical and physical (2D) electrical harnesses design
 - Dedicated symbol libraries and component references according to the harness design
 - Positioning of accessories
- Automatic routing of cables and wires into the harness according to the schematics
- Automatic calculation of harness wire and cable lengths and branch diameters

The additional SEE ELECTRICAL EXPERT modules

Cabinet Layout

Panel:

- Equipment placement and collision control
- Associative dimensioning
- Rail and wireway management
- Enclosure selection assistance
- Navigation between panel layout and schematic diagrams
- Consistency check up between panel layout and schematic diagrams
- 3D cabinet view.

Part List Management

Part list:

- Automatic part list generation
- Multi-criteria sorting and filtering
- User defined page layout (several available templates, possibility to customize templates, font choice, contents,...)
- Terminal block tags edition for printing machines

Part list manager:

- PART LIST module included
- Equipment catalogue management via Internet (downloads, updates...)
- Part list management (evolution, revision indices)
- Equipment list importation (pre-part list)
- Equipment catalogue management dedicated to a specific installation (project)
- Automatic equipment code assignment

Exchange And Communication

PLC:

- Management of PLC configurations
- Networks and field buses management (remote Input/Output)
- Racks and Input/output cards schematics automatic generation
- Importation/Exportation of input/output lists
- Input/Output card updating

Translation:

- Project translation in different languages
- Multi-lingual projects management

DXF:

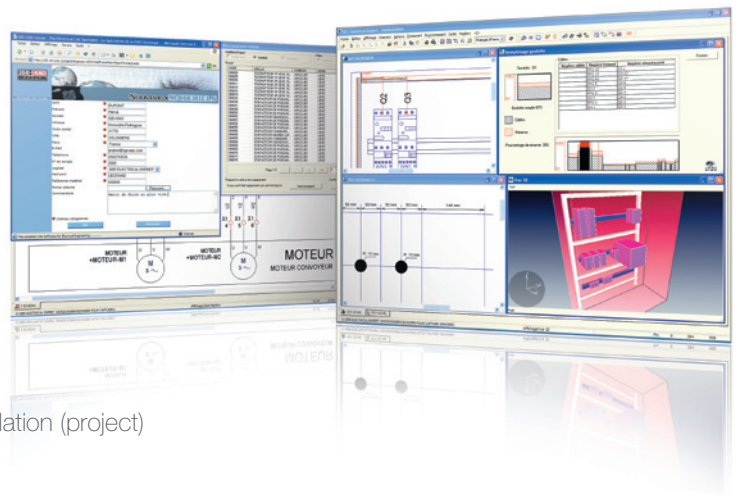
- DXF format (AutoCAD) and DWG Importation/Exportation

SmarTeam Integration:

- SEE Electrical Expert projects and associated documents integration into Enovia SmarTeam PDM
- Project management from SEE Electrical Expert and/or Enovia SmarTeam

Manufacturing Panel:

- PANEL module included
- Wire routing in the cabinet
- User defined wire routing configurations (Compulsory routing points,...)
- Wire length calculation
- Wireway filling rate calculation
- Cabling wire list
- Drilling layout generation



SEE Viewer:

- Documents viewing and printing
- Navigation tools, highlighting, search and marking functionalities

SPM (SEE Project Manager):

- Project Manager
- Electrical data centralisation and securitisation
- Electrical projects operations tracing
- Working environments management and evolution follow-up
- Database formats: ACCESS, Oracle, SQL Server
- User management (user profile definition and readingg and modification access control)
- Project creation according to pre-defined templates
- New solutions creation (re-use notion)
- Project version management, as well as check-out (modification) / check-in (modification update and availability for other users).

This documentation was given to you by:

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