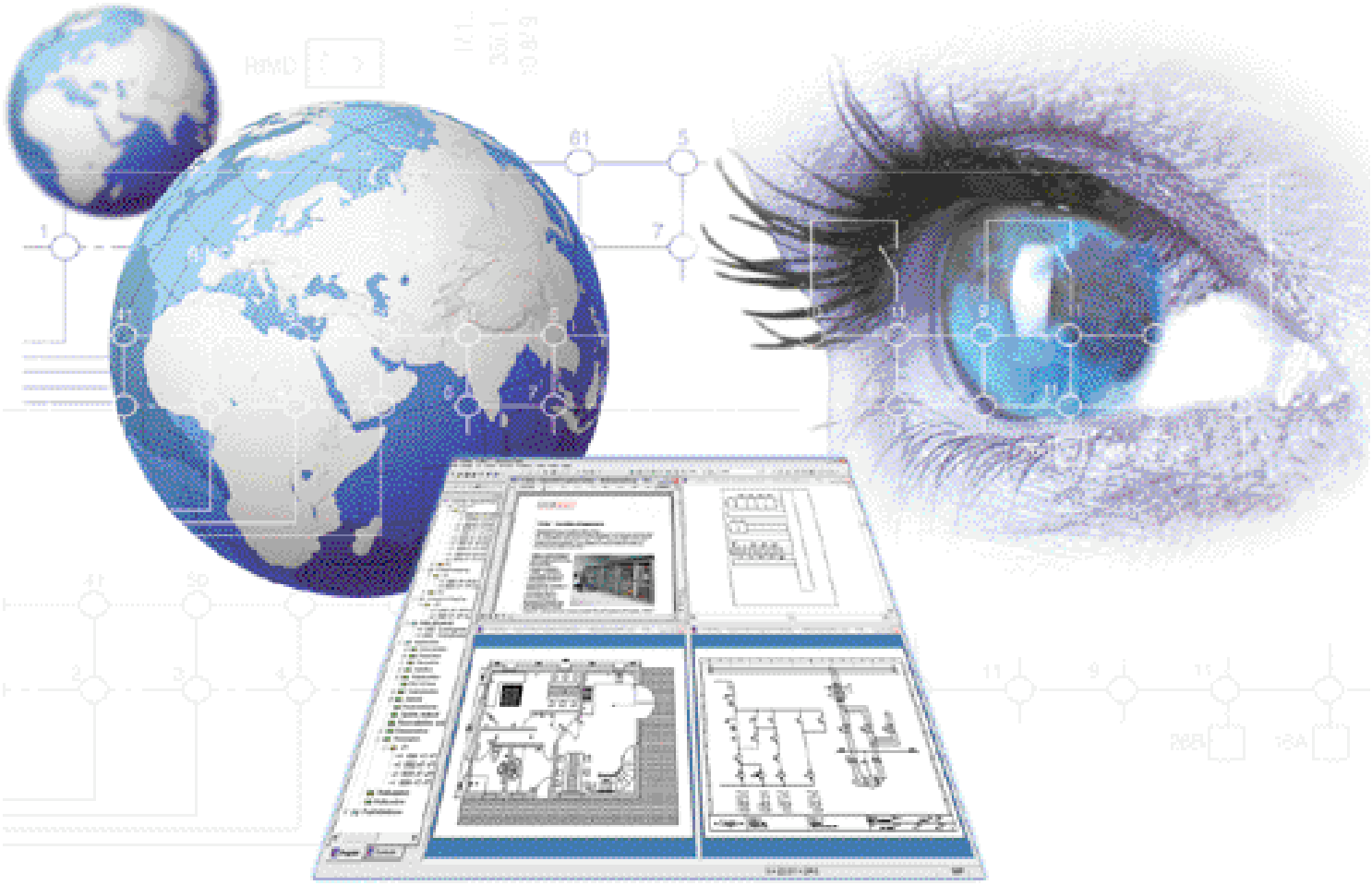
see electrical™
CADdy++

Intuitive and Versatile

Computer-Aided-Design Software
for all your Electrical Design needs



The Specialist in Computer-Aided-Design
dedicated to Electrical Engineering,
Systems, and Industrial Fluids

IGE+XAO
UNITED KINGDOM

www.ige-xao.co.uk

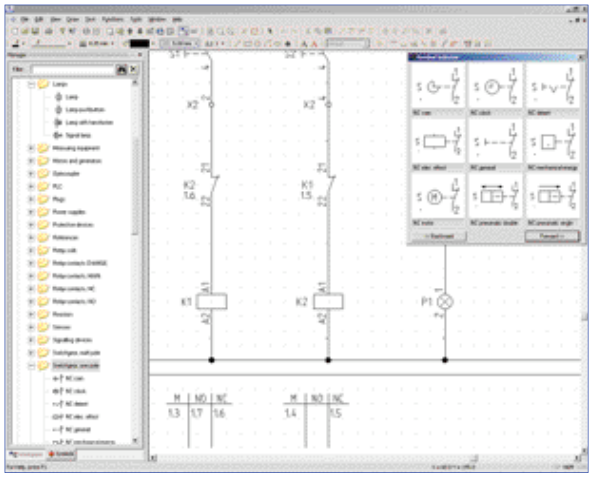
SEE Electrical/CADdy++ – Basic
A cost-effective, entry-level solution

SEE Electrical/CADdy++ – Basic is the ideal entry-level solution for all industries. Its numerous functions and attractive price make it an easily accessible choice for smaller businesses.

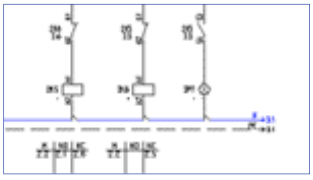
SEE Electrical/CADdy++ offers real-time and automatic functions, which incorporate proven technologies well suited to managing project information and multiple lists.

- As a real, 32-bit application, **SEE Electrical/CADdy++** readily fits into all existing Windows environments.
- All functions and commands in **SEE Electrical/CADdy++** are easy to use and designed specifically for electrical engineering. Its intuitive interface means that users can be productive very quickly, with minimal need for training.
- As with most true Windows applications, **SEE Electrical/CADdy++** users can easily personalise their working environment.

Many powerful functionalities are available in the Basic package



- User-friendly drawing functions adapted to the needs of circuit diagram generation facilitate schematic entry. The rubber band function for example, allows for the moving of components horizontally or vertically, whilst wires remain connected.
- An extensive array of symbols are readily locatable in the various available databases. In addition, custom symbols can be created should the user require something that is non-standard.
- Various standard and customisable component tagging options save time and reduce errors. All project specific settings are stored within the project data and are easily adjusted to the user's requirements.
- Graphical pages including parts lists, wire lists and terminal lists, can be rapidly and professionally produced.



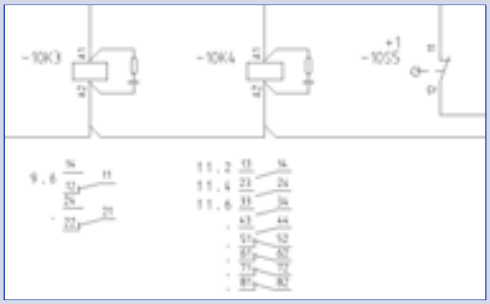
Cross-references on signals, contacts and relay coils are generated automatically

- A diverse range of page templates is included, and the user can easily create their own if required.
- Several projects can be worked on simultaneously, allowing the user to copy existing parts or full sheets from one project to another.
- With the integrated Microsoft ActiveX® interface, documents from other Windows applications (including Microsoft Word®, Microsoft Excel®) can be embedded into the project structure.
- The ability to import and export in DWG, DXF, DXB and Enhanced Metafile Format facilitates the exchange of drawings with third parties. A **SEE Electrical/CADdy++** Viewer is also available and freely distributable allowing projects to be conveniently viewed and printed.
- For professional looking documentation, pixel images such as BMP, JPEG and PCX files can be inserted into the title block of an electrical diagram.
- Real-time and automatic functions constantly verify project data, saving the user valuable time.
- Labels for terminals, wires and components can be produced by exporting in various supported printer formats, including Weidmüller and many others.

SEE Electrical/CADdy++ – Standard
A feature-rich, high value option

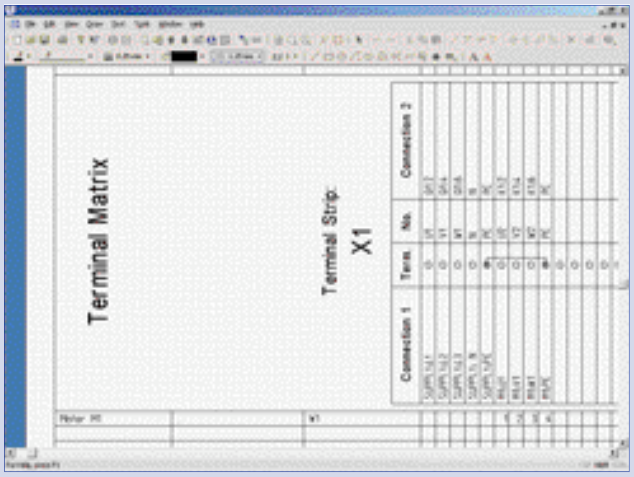
SEE Electrical/CADdy++ – Standard is the second level of **SEE Electrical/CADdy++**. An economic solution, it delivers distinct advantages to those users who regularly produce and revise electrical documentation.

In addition to the characteristics of the basic level, the standard package offers a wider range of functions to assist in the rapid production and effective management of electrical diagrams.



Wire directions and contact mirrors provide an organized overview

- Fully integrated relay contact, component auxiliary contact, and cross-referencing manager, helping to avoid errors during the design stage. Administration of both main and additional component references allows all configurations to be checked and information to be retrieved in real-time.
- Creating detailed parts lists is simple, due to an integrated "type database", which allows for both manual entry and the importing of complete manufacturer's catalogues in spreadsheet or ECAD format.
- Wires can be automatically numbered in a variety of formats, and wire directions can be displayed and edited if required.
- Database editors allow component modifications in a list format, which are displayed immediately in the electrical diagram. In the list of products, the selection of specific manufacturer's components from the type database is easily achieved.
- Automated logical functions are available for PLCs, allowing real-time bi-directional exchange of PLC operands between racks and I/O signals.



Fully customisable terminal matrices provide automatic generation of terminal strips with all cables, wires, targets and bridges shown

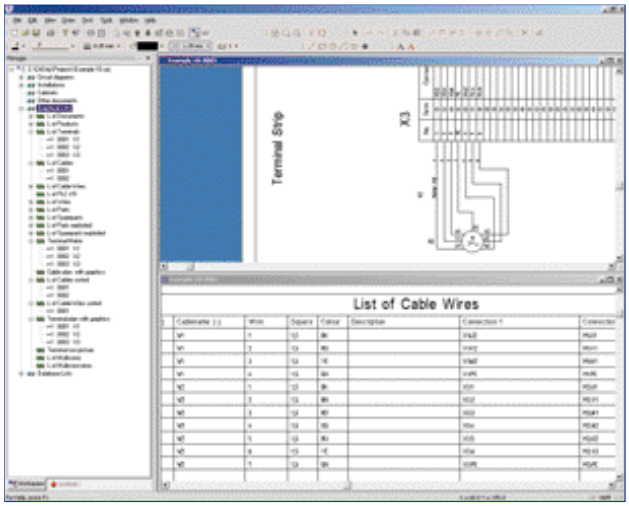
- Project development based on a function and localisation hierarchy system may be employed.
- Special functions for dimensioning and geometry are incorporated, providing a basis for designing control cabinet and panel layouts.

SEE Electrical/CADdy++ is of particular benefit to manufacturers of any type of electrical machinery and cabinets.

SEE Electrical/CADdy++ – Advanced
For the highest level of electrical design

SEE Electrical/CADdy++ – Advanced is the final level of **SEE Electrical/CADdy++**. It offers a high-end, professional system for electrical diagram design that substantially reduces development times.

In addition to all the capabilities of the basic and standard levels, the advanced package equips the user with further powerful functions. These have been specifically designed enable users to rapidly and efficiently develop and manage complex electrical projects.

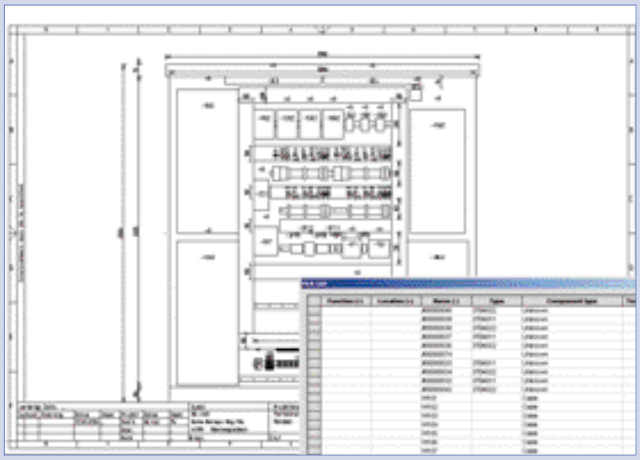


Terminal Plan with Graphics (top) or List of Cable Wires (bottom) provide a clear overview

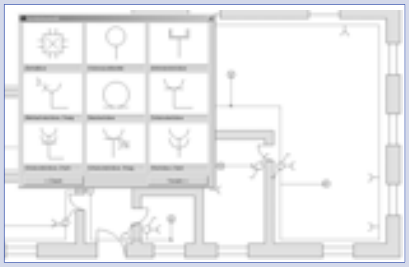
- By double-clicking on any cross-reference, the user can navigate through a complex project quickly and effortlessly.
- A custom graphical list generator allows the user to create their own bespoke project reports. This can either be achieved with the built-in interface, or by the use of SQL statements.
- If several similar projects/drawings need to be produced, **SEE Electrical/CADdy++** Advanced offers a powerful 'auto-diagramming' function. This tool is able to generate entire projects or groups of symbols from Microsoft Excel® and Access® files.
- Using a database driven translation tool, entire projects can be converted into different languages at the click of a mouse, whilst texts can also be translated individually if required. Additionally, the selection of a "codepage" permits the display of Western European and e.g. Cyrillic or Greek letters in a diagram at the same time.
- Database editors incorporate a wide range of sorting and filtering functions. This also enables terminal blocks to be automatically renumbered to comply with new or revised definitions.
- The automatic numbering mode for PLC operands can be predefined (hexadecimal, decimal, or octal), and PLC assignment lists can be imported in Microsoft Excel® format.
- A useful function can change all the page templates for an entire project, allowing for the customisation of project templates for different customers.
- Merging projects with different function/localisation allows multiple users to work on specific areas of the same project.
- All project documents can be sorted into a printing spool, so that the user can readily print exactly what they need, in the order and size they require.
- With the "List & Labelling" tool in the integrated database, **SEE Electrical/CADdy++** offers powerful and fully automated generation of labels and tags. All popular worldwide labelling formats, including Avery, Zweckform, Herlitz and Leitz are fully integrated into the system.

SEE Electrical/CADdy++ – Cabinet Lay-Out
Simple control cabinet and panel design

- The **Cabinet Lay-Out** module allows for the professional design of control cabinets and panels within **SEE Electrical/CADdy++**. This is achieved by the automatic linking of symbols in an electrical schematic, to those placed in a cabinet. Cabinet components are inserted via a "pick list", which contains all of the parts that are used in a project.
- Elements inserted into cabinets are correctly scaled, and obtain this information from the "type database", either from the length and width of the component, or from an imported or user-defined symbol.
- Projects may also be started in the **Cabinet Lay-Out** module, as all components placed will be available in the circuit diagram "pick list".
- A variety of measuring, dimensioning and other specialised CAD functions assist in the production of professional looking documents.
- DIN rails and cable/wire channels can be inserted as required, facilitating the construction of organised and logical cabinets.
- Terminal strips used in cabinets may also be viewed in the **SEE Electrical/CADdy++** graphical terminal matrix.



SEE Electrical/CADdy++ – House Installation
A versatile CAD module for producing electrical installation plans



SEE Electrical/CADdy++ House Installation is designed to meet the needs of electrical installation planning, and is used as an additional module with **SEE Electrical/ CADdy++**.

- Easy to use with a comprehensive range of symbols designed specifically for the electrical side of building services engineering.
- Functions include automatic symbol rotation (aligning with wall direction), easy copying, and tagging.
- With **SEE Electrical/CADdy++ – House installation**, building plans obtained directly from an architect, may be read in through the DWG/DXF/DXB interface.
- Walls, doors, windows, and many other objects can easily be inserted from the symbol database, allowing simple building drawings to be created by the user.
- Various lists, containing cable and component information, can readily be generated and exported in Microsoft Excel® or ASCII format. As House Installation is an additional module for **SEE Electrical/CADdy++**, any inserted elements e.g. cables, are immediately available in the pick list of the main package, for use in further design work.

Functionality offered by SEE Electrical/CADdy++

	Basic	Standard	Advanced
Project manager	•	•	•
Real-time component list	•	•	•
Real-time parts list	•	•	•
Real-time contact list	•	•	•
Real-time terminal list	•	•	•
Real-time cable/cable-wire list	•	•	•
Real-time wire list	•	•	•
Real-time PLC I/O list	•	•	•
Real-time list of documents	•	•	•
Filtering/sorting in lists	•	•	•
Multiple symbol libraries (including IEC) with graphical overview, grouping and searching functions	•	•	•
Creation of custom symbols and drawing macros	•	•	•
Real-time component numbering and cross referencing	•	•	•
Custom project template creation	•	•	•
Real-time connection and open contact check-up	•	•	•
Graphical cable definition	•	•	•
Bi-directional compatibility with other CAD systems (DWG, DXF and DXB)	•	•	•
Microsoft ActiveX® interface	•	•	•
Importing of images (JPG, BMP, PCX...)	•	•	•
Copying of symbol groups between projects	•	•	•
Working on multiple projects simultaneously	•	•	•
Customisable working environment	•	•	•
Standard CAD drawing facilities	•	•	•
512 available layers	•	•	•
Auto-backup feature	•	•	•
Project write protection	•	•	•
Export in Enhanced Metafile Format and XML	•	•	•
Export formats for Weidmüller and other label printers	•	•	•
Integrated 'type' database		•	•
Graphical signal/wire numbering in several formats		•	•
Contact mirror display for coils		•	•
Automatic contact numbering of coils, and components with auxiliary contacts		•	•
Function/location management with four predefined signal properties		•	•
Graphical function/location boxes		•	•
Importing of manufacturer's data into type database in Microsoft Excel® or ECAD format		•	•
Wire direction display and editing		•	•
Checking for overloaded contacts in coils, and components with auxiliary contacts		•	•
Database editors (single entry editing)		•	•
Cable management (cable type database)		•	•
Dimensioning capabilities		•	•
Handling of deck terminals		•	•
PLC I/O manager		•	•
Automatic terminal bridge detection		•	•
Graphical terminal plan with up to ten bridge types		•	•
User definable numbering method for all elements and references		•	•
Find and replace text throughout entire project		•	•
Duplicate component name check		•	•
Cross-reference navigator (go to) with marking function (come from)			•
Configure project tree allowing for custom graphical and database lists			•
Auto-diagramming function (generating circuit diagrams from Microsoft Excel® or Access® files)			•
Language translation of complete projects			•
Access to the texts available in the translation database			•
Advanced database editors (editing of several entries at once)			•
Renumbering of entire terminal strips			•
Terminal plan with graphics and terminal row picture			•
Insertion of pages and deletion of page gaps			•
Changing of page templates for an entire project			•
PLC operands numbered automatically in several available formats			•
Importing of PLC assignment lists in Microsoft Excel® format			•
Copying of all sheets of a function in a project to another project			•
Sorting of cables and wires according to function/location			•
Configuration of multicores			•
Find and replace symbols throughout entire project			•
Complex copy, edit, insert, and delete functionality			•
List and label editor			•
Freely configurable signal properties			•
DWG/DXF/DXB multi-import and SVG/DWF multi-export			•

Hardware and Software requirements

- Windows NT 4.0 SP6 /2000 / XP
- CD-ROM drive
- Minimum 128 MB RAM
- Pentium like PC, minimum 1000 MHz CPU speed
- Display: minimum 1024 x 768 pixels

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