IGE+XAO: The Specialist in computer Aided Design dedicated to Electrical Engineering, Systems and Industrial Fluids.

**Xelec** is the result of a close partnership between IGE+XAO and the largest French industrial companies (Renault, Peugeot, Michelin, etc.). Xelec is a modular and evolutive product that runs on Windows®.

Due to its considerable processing power, Xelec is ideal for the design of large manufacturing lines. With its wide range of functionalities, it is particularly well adapted to fit the needs of customers working with numerous sub-contractors.
**X-SCHEM**

Interactive module for schematic diagram and embedded cabling design:
- Schematic design and modification using symbol libraries and standard diagrams.
- Automatic numbering of components and connections.
- Cross references management.
- Parts list generation.
- Cabinet terminal strip generation.
- Wire and connector diagrams.
- Automatic generation of strands and harnesses.

**X-CABLE**

Automatic inter-cabinet cable generation module:
- Creation of synoptics consistent with the schematic diagrams.
- Automatic generation of cables and terminal strips without having to define them in the schematic diagram.
- Interactive cabling modification.
- Cabling transfer into schematic diagrams.
- Cable and terminal strip parts lists.

**X-NOMEN**

Module for parts lists generation developed on a relational database:
- Automatic parts lists generation based on customizable criteria.
- Multi-lingual components catalogues and standards management.
- Tree structured part list management.
- Customizable part list editing.
- Part list transfer into the schematic diagrams and cabling.
- MS ACCESS®, ORACLE®, EMPRESS®, or any ODBC compatible databases.
- Links with numerous manufacturer catalogues.

**X-PLAN**

Cabinet layout module:
- 2D or 3D component insertion, with automatic side view generation.
- Equipment collision control.
- Component insertion based on equipment catalogues or parts lists.
- Construction constraint storage.
- Free drawing, associative dimensioning and hatching.

**X-EDIT**

Printing module:
- Printing of schematic, cabling, parts list and panel layout documents.
- Cover page and summary list creation, taking into account title blocks and revision indexes.
- Page creation from ASCII files.

**X-VALID**

Processing module guaranteeing the User's know-how:
- Schematic consistency checking.
- Wire and component renumbering.
- Customizable list editing (components, wires, etc.).
- Generation of cabinet terminal strips, cross references and wire grids.

**Other modules**

- **X-ALPHA**
  Automatic schematic generation language.

- **X-FNES**
  Interacts with PLC card programming systems using the FNES standard.

- **X-EDXF**
  DXF exchanges with other CAD/CAM systems.

- **X-SIMUL**
  Schematics translation into Boolean equations for command simulation systems.

- **X-ETIQ**
  Extraction of schematics and/or cabling tags for label printing.

- **X-TRAD**
  Text extraction and re-integration for electrical data translation.

- **X-MB**
  Schematic element updating (changing working method or norm).

- **DRIVERS**
  Postscript and HPGL formats.

- **X-BIBLIO**
  Creation of libraries for symbols and components used in different modules.

- **X-PARAM**
  Customization of components catalogues, parts lists, search lists for automatic part lists and different editions.