IGE+XAO
GROUP
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Shaping the Future
of the **Electrical**
PLM and **CAD**

"SEE Electrical Expert Harness package :

All the Power of Electrical CAD dedicated to Harness Design"

see *electrical*™
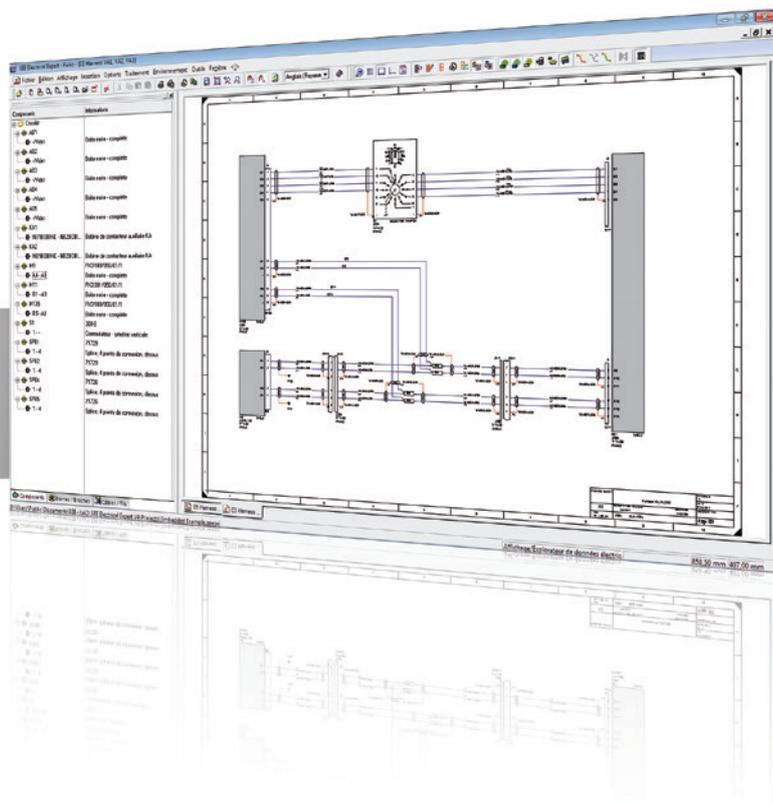
expert

SEE Electrical Expert Harness package

In a Windows environment, manages all kinds of diagrams, generates wires and part lists.
In addition, SEE Electrical Expert Harness package allows connecting to 3D and PDM tools (Product Data Management).

Wiring Diagrams,
Harness Documentation in 2D.

3D Harness installations

PDM Integration

Electrical Harness Manufacturing

Save time and money…

- Dedicated symbol libraries and functionalities.
- Easy-to-use version (Windows environment).
- No need to wait for mechanicals plans in order to create harness 2D documentation.

Increase quality…

- Real-time controls (pin booking, electrical tags, signals tracing, etc.).
- Automatic List generation (part list, cable list, etc.).
- Revision management.

Communicate…

- with PDM software and manage document versions.
- with Mechanical CAD and create the 3D harness according to the electrical diagram.
- with other packages through import/export in various formats (TIFF, JPG, XLS, XML,…).
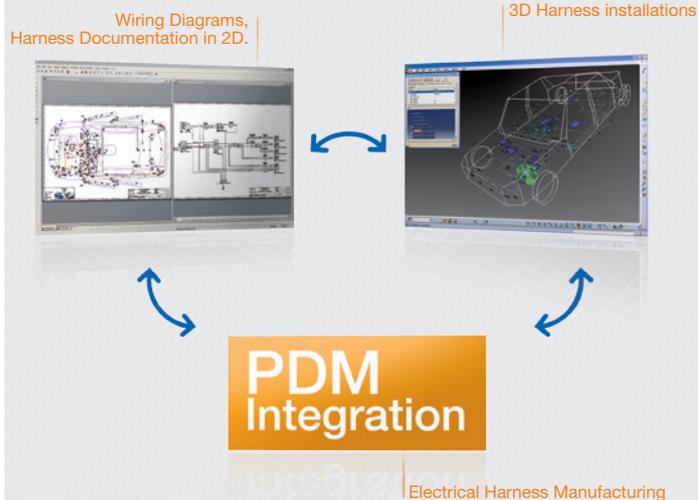
Schematic Editor

SEE Electrical Expert Harness package provides all necessary tools to manage schematic diagrams and wiring diagrams.

Creation and modification of diagrams

- Multiple sheets project management (off-page referencing).
- Dedicated tools for signal insertion, symbols.
- Wires are cut automatically.
- Windows drag-and-drop, cut-and-paste and undo features, context-sensitive menus (pop-up menus), icon bars, etc.
- Manual or automatic tagging of components.
- Real-time management of cross-references (Multiple pages).

Complete management of connectors

- Automatic connector insertion.
- Part number selection.
- Automatic numbering of connector pins according to part number.
- Management of all type of pins (contact, socket, etc.).
- Real-time control (pin duplication, exceeding capacity, etc.).

- Pins management, swap pins, spares.
- Management of connector composition (backshells, pins and accessories).
- Management of in-line connectors (Automatic pin numbering, etc.).

Management of signals, wires, cables, shielding

- Real-time management of signal networks. (nets)
- Management of cable and wire numbers, gauge, colour, etc.
- Management of cable types (shielded, twisted, coax, etc.).
- Selection of cable and wire part numbers.

Reports generation

- Automatic lists generation of:
    - Equipment lists
    - Wire lists
    - Cable lists
    - Manufacturing lists, etc...
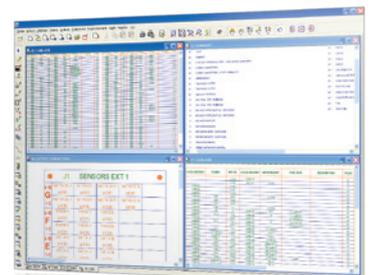
Harness Documentation

An easy tool to create and route your electrical harness in two dimensions (or in 2D) according to your wiring diagram.
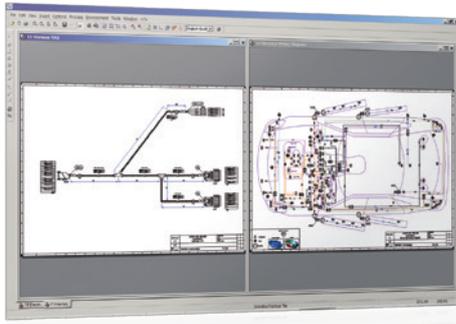
- Dedicated symbol libraries and component references according to the harness design.
- Automatic routing of cables and wires into the harness.
- Positioning of accessories.
- Automatic calculation of harness wire and cable lengths and branches diameters.
- Harness part list creation.

Data Management and Exchange

To reduce and optimize the Time to Market, a CAD system has to be integrated and linked with a PDM software. The data management integration offers review Management and data exchange to mechanical CAD.

- Management of a project database (Vault) on MS Access®, Oracle®, SQL server®…
- Management of interfaces to other PDM products (SMARTEAM, ENOVIA…).
- Management of user rights and access.
- Check in, check out and review index features.

The wide range of standard exchange formats of SEE Electrical Expert Harness package allows for smooth communication with other packages or services.

Graphic format
- DXF/DWG, BMP, JPEG, TIFF, PCX, SVG, CGM…

Data exchange formats
- XLS, DOC, HTML, XML …

Database formats
- MS Access®, Oracle®, SQL server®…

Wiring exchange format
- XML (CATIA V5), NWF (Pro Engineer).
- SolidWorks

SEE Viewer
- View and print documents.
- Navigation tools, search and find capabilities and red lining.

Environment

SEE Electrical Expert Harness package allows the user to create his own working environment to adapt to any standard. That is, graphical representation and working method to design schematics for commercial or military aircrafts as well as cars or ships.

Over 4,000 symbols and components references...

Symbol libraries
- Availability of symbol libraries for international standards such as ATA, BNAE, DOD-STD-863B, etc.
- Symbol editor to create, modify and organize symbol libraries.

Equipment database
- Database of electrical equipment, connectors, cables, wires…
- Management of part numbers, manufacturers, product description and technical data.
- Import and update features to connect to external data (ERP), etc...

Working methods
- Management of working methods according to standards.
- Equipments, connectors, signals, wires and cable numbering.
- Connectors, cables graphical representation.
- Title blocks and page formats management.
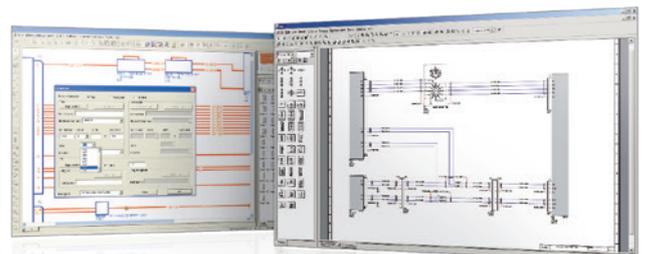
IGE+XAO is a DASSAULT SYSTEMS CAAV5 Gold Partner

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CATIA V5 Integration XML translator
- Wiring data extracted from the wiring diagrams is routed in the Digital Mock-up to calculate wires length.
- Wires length information is retrieved in the wiring diagram to update wire lists.

SMARTEAM Integration
- SEE Electrical Expert Harness package projects may be stored and managed by SMARTEAM.

Added Value Services

''Assistance +'' Team
The "Assistance+" team helps customers make the most of our products, using highly efficient methods.
- Consulting.
- Integration.
- Specific programming.
- «On-the-spot» support.
- Etc.

Methods of the ''Assistance +'' Team
Customization of our products.
Specific Developments on our Various APIs (in all languages).
Integration of IGE+XAO software into customers' information system.

S2E CONSULTING
S2E Consulting, a company jointly owned by IGE+XAO and SOGECLAIR, sells consulting and assistance services dedicated to systems engineering and electrical design process optimization.

Staffed with experts from the aeronautics field, S2E Consulting can help customers with optimizing processes and integrating their best practices in IGE+XAO solutions in relation to their information system.

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