



# AUTRIAL SL

Focused on standardizing design

## Expert in refrigeration, air conditioning

Today, Autrial is diversifying into new sectors: conventional and nuclear power generation, alternative energy, ship-borne climate-control and propulsion, and environmental processes like waste treatment. In 2007, with an eye on growth, it began standardizing content in electrical design on a large scale. The bigger the company saw its scope of activities, the more management felt it needed an electrical design platform with strong automation capabilities including the ability to create, archive and scale time-saving macros for simple or complex circuits and components. Autrial replaced another vendor's ordinary design software with the state-of-the-art EPLAN Electric P8 because it offered precisely these capabilities, and much more.

Autrial built its reputation on helping keep warm weather Spain cool by providing electrical controls for commercial and industrial refrigeration and air conditioning across that country. Founded in 1977 and located in the port city of Valencia, Autrial used to focus exclusively on systems for food industries: food processing plants, food wholesaling, warehousing and retailing, like the refrigeration systems in large supermarkets and giant hypermarkets. Its plant room and control panels manage the operation of compressors, drying units, storage-room cooling and store-wide refrigeration systems.

efficient engineering.

# EPLAN

delivers high  
performance



## Need for a powerful design tool to support growth

“We changed software because we had to begin developing standard modules and generate complete electrical documentation directly from the program,” says Francisco Requena, head of the technical department. The company wanted to improve engineering productivity, reduce the amount of errors (and error-checking) in a project, generate more comprehensive and accurate documentation automatically and integrate its design software with other Autrial enterprise systems so departments could collaborate more effectively in planning and scheduling production and streamlining order turnaround time.

## Errors reduced in all areas

Right after the implementation of EPLAN Electric P8 at Autrial, design time has been reduced by an average of 20%. Design errors are down 30%, wire errors 10% and component errors 50%. Designers insert parts into their project from a database of authorized components Autrial maintains within EPLAN. Autrial designers also use the EPLAN Data Portal to access the online catalogues of major parts vendors, then import specific parts, complete with all data, pre-validated by EPLAN Software & Services, directly into their project without having to manually key in the data. Inserting a component, either from the component database or via Data Portal is just like inserting a macro – all lists and schematics get automatically updated and cross-referenced by EPLAN Electric P8.

## Streamlined inventory management

Adopting EPLAN has helped Autrial streamline purchasing and inventory management. Components are ordered on an as-needed basis, which cuts down on duplicate orders, buying essentially the same part from multiple vendors, over-stocking and shortages. When design work is complete, all wire lists and bills of materials are transferred electronically from EPLAN to the purchasing department. The same component data imported through the Data Portal can be stored as simple macros in the component database, even incorporated into a larger, more complex macro stored in an archive of recurrent content Autrial is building up in the EPLAN database.

## Building a library of standardized content

That content archive holds macros, simple or complex – from switches, terminal blocks and circuits, to motors, even full assemblies – basically anything that reoccurs in designs. “We have developed standard modules, and when the designer selects and parameterizes it and inserts it into the schematic, EPLAN does the rest, finishing the drawing,” says Francisco Requena. “One of the things we appreciate the most about EPLAN is the ease with which one can configure macros. The designer chooses the model, configures the parameters and the drawing is finished.” The program compiles, cross-references and progressively updates all lists and other documentation as the project takes shape.



# INTEGRATING

design  
with planning, production

“These efforts to standardize content are only a start,” says Francisco Requena. Standardization is being expanded because it greatly accelerates new product development and order fulfillment. It simplifies the work of PLC and other software programmers and helps Autrial adapt its existing technology to products for new markets. The more standard content elements are used, the faster a project can be completed with a greatly reduced risk of errors that could impact manufacturing or performance in the field.

## Dynamic document-sharing

For Autrial, the upgrade to EPLAN took it to a much higher level of automation in the preparation and sharing of documentation internally and externally than it had with its previous, different brand software. EPLAN quickly and accurately generates a complete dynamic PDF documentation package including all lists and schematics. All electrical drawings are converted to PDFs for the PLC programmers as well as the production and inspection departments.

## Adding value with documentation

“The PDF is sent to the customers; some of them integrate our documentation into theirs. We can include in that one PDF all electrical specifications, certificates, user manuals and product manuals,” says Francisco Requena. Although, some customers had problems reconciling EPLAN drawings to their own standards at first, Autrial designers adjusted their drawings and today customers rate Autrial’s EPLAN design output as a most competitive engineering process.

“EPLAN allows us to reach a new level of design efficiency, standardization and new model development. EPLAN is the platform that is enabling us to integrate electrical design content with other systems and departments,” says Francisco Requena. As part of that ongoing integration, Autrial is considering adding EPLAN Cabinet to automate much of the enclosure design and manufacturing setup work.”

Driving standardization,  
integration

# SUMMARY

## EPLAN Platform spurs major efficiency improving changes

Autrial, a Spanish manufacturer of control systems for large commercial and industrial refrigeration systems, adopted EPLAN Electric P8 so it can work towards a corporate objective of substantially standardizing design content as it expands in both its traditional markets and new sectors like green energy and environmental systems. EPLAN's enhanced tools allow Autrial to make macros out of simple and complex circuits that are archived and re-used to greatly accelerate project turnaround time, minimize errors through the use of validated content, and capture economies of scale in procurement and manufacturing. The same database has been integrated with other Autrial enterprise systems for improved collaboration among departments.

Find out more about Autrial at [www.autrial.es](http://www.autrial.es)

efficient engineering.



EPLAN ESPAÑA · Sabadell · España  
info@eplan.es · www.eplan.es

Published in 2011