eCATALOGsolutions

Product Configurator reduces the time of offer preparation at LUCAS from 2 days to 5 minutes

Case Study

LUCAS

www.lucas-robotic-system.com

Toolbox for integrators of robotics

The family company LUCAS, based in Bazas in the French Department of Gironde, was founded by Raymond Lucas in 1965. Management was transferred from the founder to the son. Today, the company has over 75 employees.

The business activities of LUCAS are divided into three areas. The main business is the creation of peripheral machines for carton manufacture such as palletizing. Ten years ago, LUCAS began the production of linear axes for robot technology to offer integrators of robotics a comprehensive toolbox: Ratio axes, linear modules with two, three and four axes as well as swings. Recently, LUCAS has started using multi-arm robots of the Comau brand.

Versatile axes of robot technology

LUCAS robots are used in many areas, e.g.: surface treatment, welding, packaging and commissioning, loading and unloading of machines as well as in the area of the aviation and automobile industry. Thanks to their flexibility, precision and modular construction, robotic axes from LUCAS enjoy great popularity in well-known industrial companies such as Actemium, Spie, KUKA Systems, Commercy, Airbus, L'Oréal, Les Chantiers de l'Atlantique etc.

Automatic quotation generation

Generate an offer within 5 minutes instead of 2 days

The assemblies of LUCAS are strongly modular and built with numerous variable properties. The primary goal therefore was to automate the preparation of offers. The preparing of an offer for a track is not easy. The axis can be linear or rotating and can be equipped either with one or two slides on which one or more robots are placed.

First, mechanical calculations for an offer are made. This includes, for example, the lifespan of the slide guide, which can vary depending on the payload of the robot. Moreover, each of the 180 robots on the market has an individual emergency off switch as well as a certain tilting moment on the axis. Then there's the question of the profile shift: Does the robot need to be placed higher or horizontally?

LUCAS offers a system that can be summarized as a "chair robot". With every profile shift of 500 mm, there is a change in the bending and twisting data. For this reason, LUCAS was looking for a solution how to integrate its data into a product configurator. Furthermore, customers and prospectives should be offered the possibility to configure the track for themselves and determine the price for the configured component.

Before the product configurator was introduced, offers had to be prepared manually after an engineer examined the inquiries. This process took an average of two days.
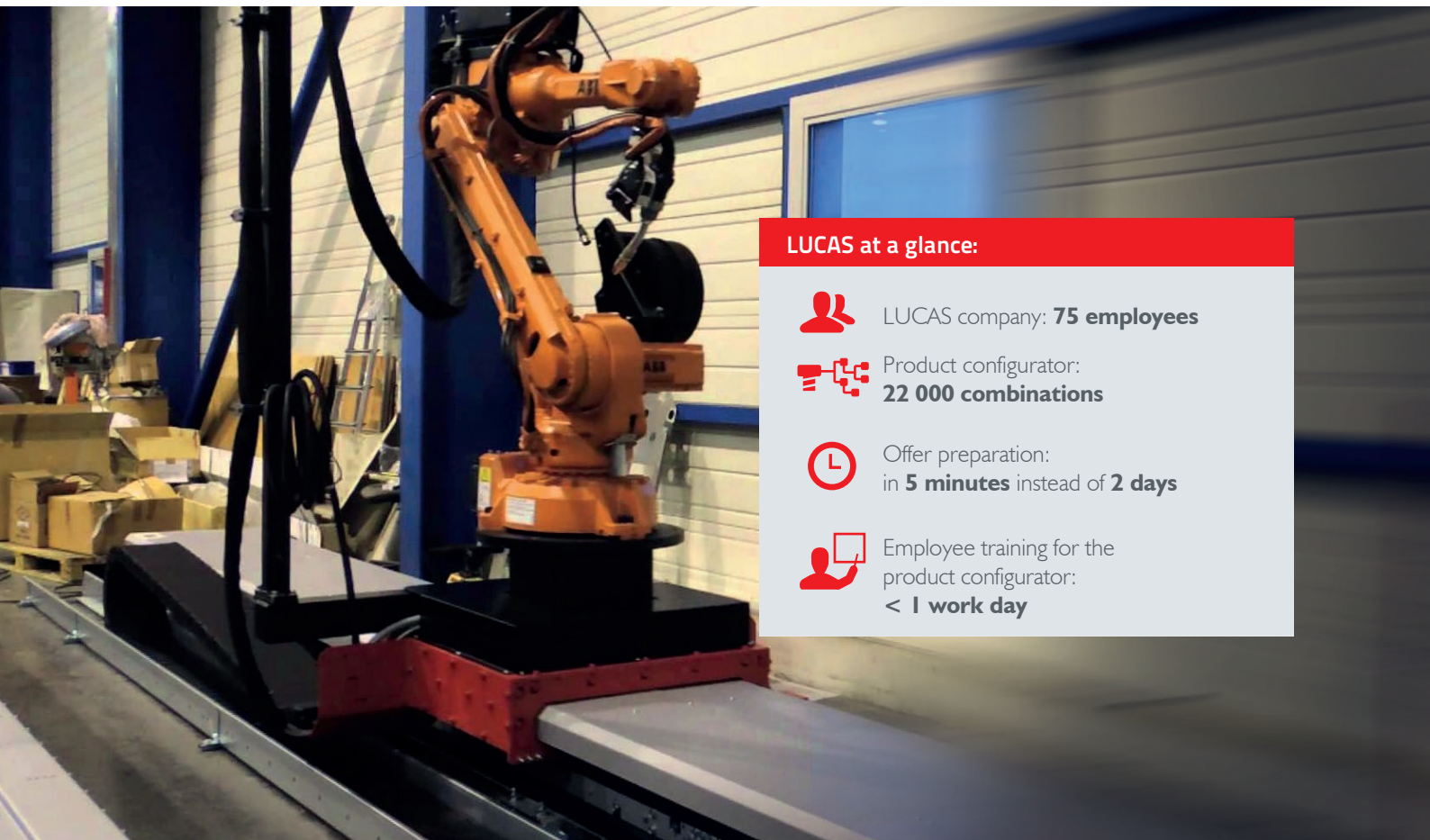
LUCAS at a glance:

LUCAS company: **75 employees**

Product configurator:
22 000 combinations

Offer preparation:
in **5 minutes** instead of **2 days**

Employee training for the
product configurator:
< 1 work day

Searching for a product configurator with a suitable interface

LUCAS first found out about CADENAS at a trade fair for software solutions. Prior to that, LUCAS attempted to set up a product configurator together with PTC, who already provides LUCAS with the CAD system Creo. However, implementing the PLM system Windchill would have been too complicated, especially with regard to training LUCAS employees, the high costs, the lack of integration options as well as the missing flexibility of the existing ERP system.

CADENAS met all these challenges with their product configurator that is easy to use and yet has all the technical resources in the background. CADENAS meets exactly all the requirements of the manufacturer LUCAS: A user-friendly software solution to configure the floor track on the internet, prepare offers and provide the matching 3D CAD models, without the processor being dependent on information from the ERP system for each modification.

>> **Even though the product configurator from CADENAS is set up in the background in a complex manner, using it is extremely easy for our customers and our sales staff. Less than one working day is needed to train our employees.** <<

Stéphane Lucas, Project Engineer – LUCAS FRANCE

LUCAS

A configurator for highest demands

The product configurator developed by CADENAS combines various components, the final result of which is made up of the entire floor track and robot. There are more than 22,000 different combinations possible.

Offer preparation is almost instantaneous

Users have the following options in the product configurator:

- robot brand (ABB, FANUC, KUKA ...) profile shift
- type of floor track
- various parameters such as the number of slides, speed of the displacement and profile shift

The entire unit is thus configured very quickly. The price per meter and per slide can be calculated very quickly, thanks to the interface to the LUCAS ERP system, and so the offer is available almost instantaneously.

Indispensable tool for integrators

As soon as the configuration is completed, the integrators can download the 3D CAD models of the assemblies and integrate them into their design. Moreover, technical documents and assembly instructions are available for download. The product configurator is thus an indispensable tool to implement designs.

Scalable system

In order to be prepared for future developments, LUCAS has included all information about tracks for all known jointed-arm robots. Although currently only floor tracks (bestsellers of the company at this time) are available for configuration, other robot systems can also be integrated in the future.

>> The greatest advantage of our product configurator lies in the preparation of offers: What previously took us two days to complete can be done now in a matter of minutes. <<

Stéphane Lucas, Project Engineer - LUCAS FRANCE
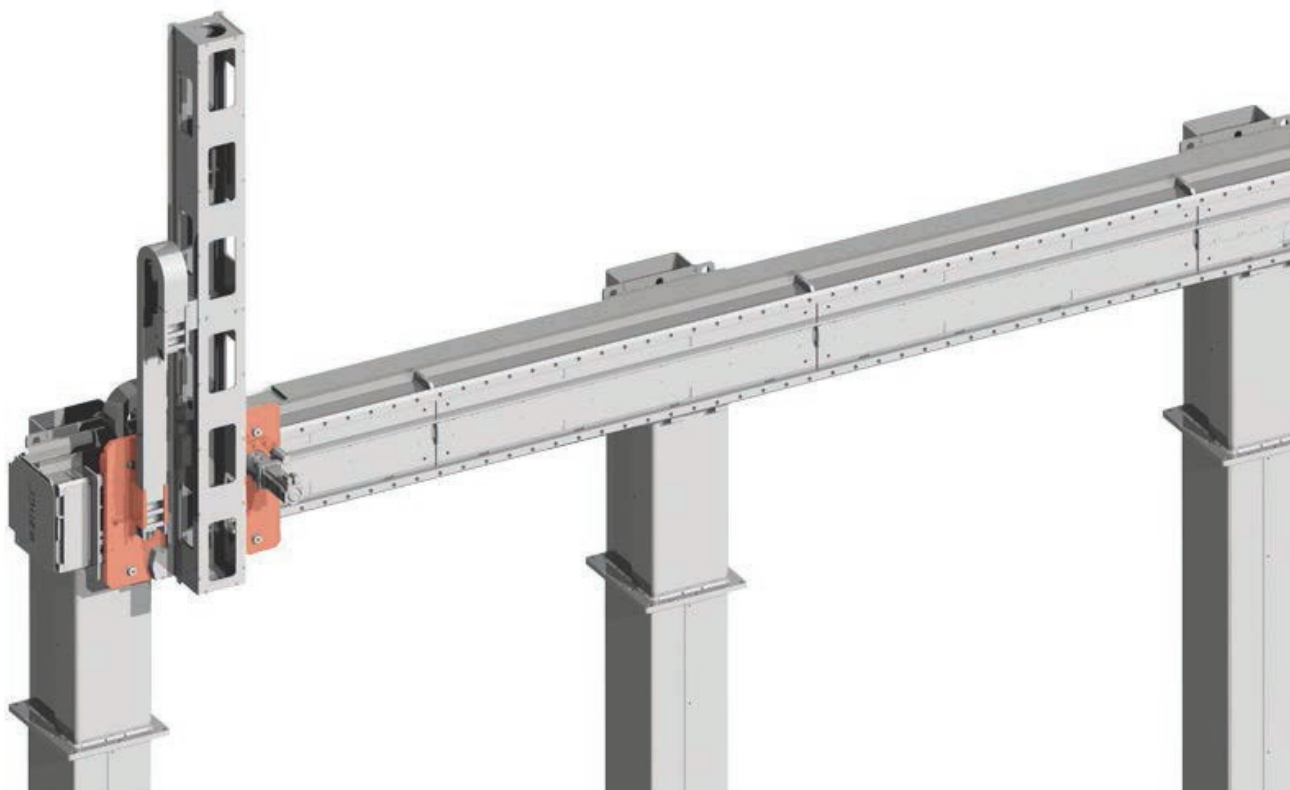
LUCAS

Future projects

Assessment of European development prospects

The manufacturer LUCAS is already planning to translate the product configurator into several languages, so as to exploit the potential of its tracks in Europe at comparatively low costs. The software solution will make it possible for the company to test the demand for its products before establishing a branch or sending its sales staff (estimated annual costs of an average 350,000 euros). Moreover, providing the product configurator on the internet as well as on tablets or smartphones is a real economic enrichment for the company.

Fast updating of the products

In order to keep its products up to date, LUCAS has hired a new employee with a three-year training contract to devote herself to the configurator. She will ensure that all products are integrated as best as possible and also perform corrections and necessary modifications. LUCAS is also considering the introduction of eCATALOGsolutions to create 3D CAD product catalogs from CADENAS, to be independent of the product configurator when updating products. As soon as the multi-arm robot from Comau is integrated into the catalog, this development will bring even more advantages.

Linking the product configurator with the product specification sheet from the ERP system

In addition, LUCAS is going to link its product configurator with its product specification sheet from the ERP system in the upcoming year. The idea is to combine the configurator with customer orders so as to start production directly and to ensure quick delivery.

>> After an integrator has integrated an axis from LUCAS into his design, it is difficult for him to change the component manufacturer afterwards. Further planning then depends on the original configuration. <<

Stéphane Lucas, Project Engineer – LUCAS FRANCE
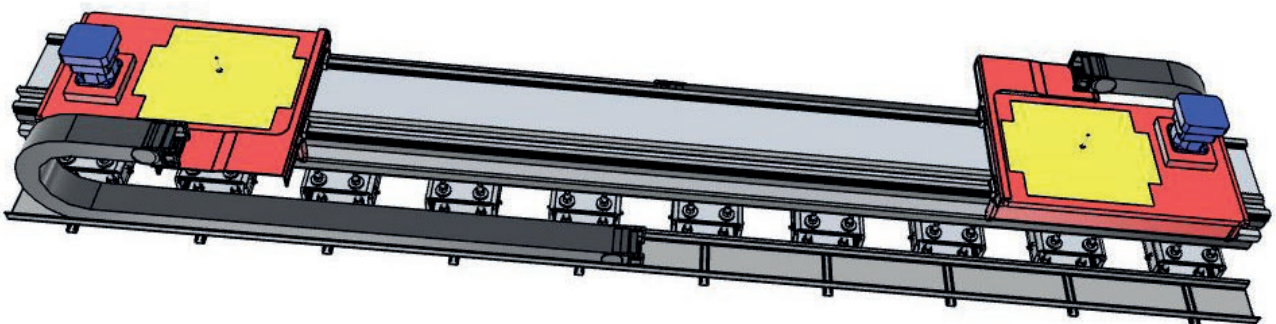
LUCAS

Company descriptions

LUCAS FRANCE

Our customers
We address our activity to the integrators of robotics, the manufacturers of pole robots and the manufacturers of machines with digitally-controlled axes. LUCAS is a full-fledged toolbox for the robot sector.

Know-how
We design, industrialize and support our integrators for the production of all or certain parts of their machinery and equipment.

Innovation
Our teams develop modular and hybrid robots based on their professional experience and technical challenges, which will be a part of the digital customer designs of tomorrow.

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CADENAS GmbH

CADENAS is a leading software manufacturer in the area of strategic parts management and parts reduction (PARTsolutions) as well as electronic CAD product catalogs (eCATALOGsolutions). Significant features of the software solution eCATALOGsolutions include intelligent CAD models, the creation of interactive product configurators and efficient lead generation with Smart Sales. CADENAS presents its tailored software solutions as a link between the component manufacturers and their products as well as their customers. The company supports over 10,000 customers worldwide in 40 countries.

The name CADENAS (span. process chains) has stood for success, creativity, consultation and process optimization, with 300 employees at 17 locations since 1992.

www.cadenas.de/en