



maxon motor – Eleven days from configuration to delivery

For over 30 years maxon motor has been providing its customers with electric drive units and commensurate components within modular systems – and with great success.

To reduce the time between configuration and delivery even further, the company introduced a CPQ solution. Using the maxon motor website customers are able to independently configure their drive units.

At a glance

Company:	maxon motor
Location:	Sachseln, Switzerland (headquarters)
Portfolio:	high-precision drive systems – motors, gears, sensors, control systems and compact drive units
Turnover:	CHF 402.5 million (2015)
Employees:	2,200 plus (2015)
Intenet:	www.maxonmotor.de

maxon motor

driven by precision

ROLE

The objective of the CPQ solution was to shorten the time between configuration and delivery to a maximum of eleven working days. An additional aim was to enable the customer to independently configure its drive units.

RESULT

On the maxon motor website customers are now presented with a configurator that serves the needs of various user groups ranging from CEOs to engineers and students. The CPQ solution controls the downstream processes, consequently speeding these up considerably.

„At the time, we first of all took a very close look at the work flows and then formulated a target scenario. All in all, we wanted to ensure that each variation of our motors and drive units could be configured as quickly and easily as possible and be ready for delivery within eleven working days.“

Dr. Luca Bongulielmi, Head of Strategic Business Development at maxon motor

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Micro motors from maxon motor have managed to make it to Mars in the NASA Rover.

What do the NASA Rover on Mars, numerous insulin pumps and a whole range of tattoo machines have in common? They all rely on high-precision micro motors from Swiss company maxon motor for precise and reliable movements. Since 1961 maxon motor has been developing and manufacturing electric drive units and commensurate components. Today the range of products also includes direct current and flat motors, planetary, spur and special gear units as well as sensors, sensor amplifiers and positioning controls – all of which are manufactured as previously in Switzerland and also in Germany, Hungary and Korea.

The precision motors are sold in over 30 countries. In 2015 the 2,200 plus employees throughout the world ge-

nerated sales of CHF 402.5 million. One factor of maxon motor's success is that for over 30 years the company has offered its drive units within a modular system. Consequently, customers are able to precisely configure the motors to suit their own specific requirements – which are naturally considerably different for a Mars robot than, for example, for medical pumps that are implanted in the body. Such a range of flexibility has also presented a challenge to the company in the past. 'It wasn't exactly easy for us to map and continually develop all the various rules that needed to be observed in configuring our products. Our range of products is simply too complex for that,' explained Dr. Luca Bongulielmi, Head of Strategic Business Development at maxon motor. An added factor was that the modular structures of existing products had been

developed historically. As a result, in addition to the standard rules, numerous exceptions also had to be considered during configuration.

Clear objective: any variant ready for delivery in eleven days

Consequently, several years ago maxon motor introduced a CPQ solution (Configure Price Quote) from software and consulting company camos to support employees involved in construction. Upon receipt of a new order from sales, the staff were then quickly able to create the requisite CAD drawings with the aid of the configurator.

When the company then subsequently launched a new product family, the commensurate decision makers focused their attention on how the entire process could be optimally mapped from an IT perspective – from the initial customer enquiry through to delivery of the motor. Dr. Luca Bongulielmi: „At the time, we first of all took a very close look at the work flows and then formulated a target scenario. All in all, we wanted to ensure that each variation of our motors and drive units could be configured as quickly and easily as possible and be ready for delivery within eleven working days’.

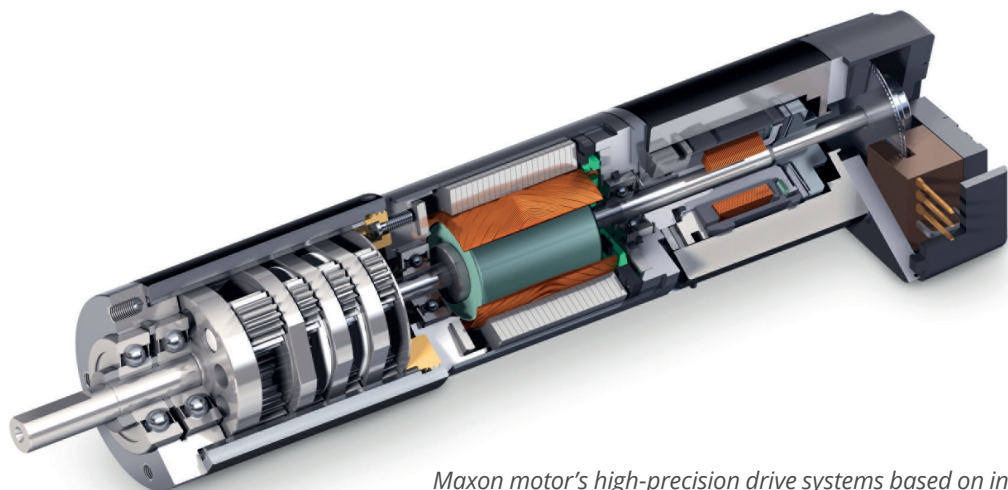
This vision gave rise to three essential criteria that the CPQ solution for maxon motor needed to fulfil. Firstly, the solution had to be capable of systematically mapping all the various rules regarding the combination of the various drive units and components. Secondly, the solution had to be capable of integration within the existing process chain and enhance the automation of it. And thirdly, the configurator had to be accessible to customers online.

Online configurator: one user interface for all customers

The existing camos software installed did not match these requirements as it encompassed and presented too many product details for this purpose. However, as maxon motor was absolutely convinced by the technology, it quickly decided to work with camos again to achieve the new solution. Another contributing factor was that the decision makers at the motor specialists were able to view the software in action at pump and fittings manufacturer KSB. „The visit to KSB was extremely helpful because not only were we able to see first hand just how the solution simplified the work, we also gained insight into the essentials of the project and the commensurate consequences for our company’, explained Dr. Luca Bongulielmi.

Once the project had launched, in addition to defining the configuration rules, a primary task was to develop the user interface. Ultimately, maxon motor had ambitious goals: not least to ensure that all configurator users – sales personnel and customers alike – could configure the desired motor with ease via a single interface.

Dr. Luca Bongulielmi: „First of all, in workshops we identified those potentially interested in our products: from CEOs of small or medium-sized enterprises through to engineers in a large company or students. For each of the defined groups, for example, we ascertained their existing level of knowledge when accessing our website and the nature of the information they would require. All the results then flowed into the optical and functional configurator design.“



Maxon motor's high-precision drive systems based on innovative technology can be configured to match individual requirements.

„We’re delighted with the CPQ solution because we’ve fully succeeded in achieving all our objectives. Since its introduction we’ve been able to deliver almost 100 per cent of all orders within eleven working days“

Dr. Luca Bongulielmi, Head of Strategic Business Development at maxon motor

CPQ solution controls business environment and shop floor

All maxon motor customers are now able to access the configurator via the company’s website, with various functions available to them to support their configuration of drive units for their own specific needs. The maxon motor sales staff also use the online configurator – and have a number of extra features available to them. Once configuration is complete, the order can be placed directly. This automatically triggers the next step in the process, with all pertinent business information transferred to the ERP system in order to create the required documents. In addition, the CPQ solution sends a detailed

production order to the system that controls production at maxon motor – including stock lists, work schedules, CAD drawings and test values. All of which considerably speeds up the process given that, in contrast to the past, orders no longer have to be manually prepared for processing during the design stage.

„We’re delighted with the CPQ solution because we’ve fully succeeded in achieving all our objectives. Since its introduction we’ve been able to deliver almost 100 per cent of all orders within eleven working days“, explained Dr. Luca Bongulielmi. For maxon motor, such success has provided the impetus for continued further development of the configurator. As a consequence, the product range has been additionally refined – with the company striving to achieve a premium in terms of individualisation. The resulting enhanced complexity has to be mapped in the software in such a way that it remains manageable – a factor that applies in equal measure for the logged rules and processing within the user interface. Dr. Luca Bongulielmi: „We’ve raised the bar in our sector with our configurator and we’re keen to remain at the top“.



It’s robot Romeo’s job to help the elderly around the house. He can move about thanks to maxon motor.

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