Martin Stolze

Implementation of PDM system increases design speed

Martin Stolze is a technical production and installation company that specialises in the automation of internal transport within the horticultural sector and also supplies conveyor belts and packaging lines for the retail fruit and vegetable sector and distribution centres. The company's engineering department designs, among other things, internal transport systems consisting of conveyor belts, potting machines, roller conveyors and watering stations, which can be combined to form a total system. Norbert van Leeuwen, team leader of engineering at Martin Stolze, talks about how these products are created.

Our core business is designing products for the horticultural industry and especially pot and plant growers, for whom we supply transport systems. These systems make sure that pots from the shed end up in the greenhouse and that they go back when there is a need for harvesting. We also supply matching solutions for the handling of the pots, where units label the pots, fill them with soil or provide them with cuttings. We also supply complete processing lines with integrated weighing tables and flow packers to the small-pack fruit and vegetable processors. We also develop and manufacture these products ourselves," Van Leeuwen explains.

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In total, Martin Stolze has just over sixty employees, five of whom work in the engineering department. Due to the high demand for the products, Martin Stolze is not only looking for new designers, but also devotes a great deal of attention to organising the design process as efficiently as possible. "We have a range of standard conveyor belts that more or less come off the shelf. They don't even come to the drawing room. For other requests, we prefer to design new products based on what we internally call our 'Lego blocks'. These can all be combined, so that we can quickly propose specific products for specific customers. How quickly that happens depends mainly on the question that a customer has," Van Leeuwen explains.

Product and advice

Customer demand can vary greatly in terms of complexity. Van Leeuwen outlines how an order becomes a product at Martin Stolze if a customer wants more than a standard solution. "We are in the fortunate position that we do not have to do much acquisition and often deal with people who already know our products and want to expand, for example. They don't so much ask for a product, but mainly for advice. Our account managers sit down with the customer to identify the exact issues that need to be resolved.

Account managers have access to a 2D CAD programme so that they can make a proposal for a solution, especially taking into account the available space and routing. During the quotation stage, the account manager is in contact with the engineering department so that we can be sure that the solution offered is also technically feasible. When the quotation is approved by the customer, a kick-off meeting is held. From that moment on, contact with the customer is channelled through the project manager, who ensures that all the details are provided by the customer so that the engineer can use them in the design. After approval of this design by the customer, the engineer will detail the whole and prepare it for production. The latter is still a considerable administrative task, but it provides the right information for the workshop, which then prepares the product for production.

Real design work

The 2D drawing from the seller is purely a floor plan with some side views in which the logistics of the tyre systems are drawn. Martin Stolze's engineering department does not take over the drawing. "We are effectively starting from scratch in terms of dimensions," explains Van Leeuwen, who adds that the design work is done in HiCAD and information is reused in another way.

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*Norbert van Leeuwen, teamleader engineering
Martin Stolze*

"We have started to build a parts library so that we can draw from it, but it is far from complete, as filling the library is quite a labour-intensive task. Therefore, when we receive a new order, we often pick up an earlier project that is similar to the new request. We try to copy parts of the project where possible and adjust things where necessary. This is less convenient than working from a library because old projects have sometimes been revised or contain other peculiarities, but this is currently the most efficient way of working."

Action required

The creation of the HiCAD library is not the only background project that requires time and attention in Martin Stolze's engineering department. Recently, the product data management programme HELiOS was implemented and this also requires action. Van Leeuwen tells about the process that has already been completed and what still needs to be done. "HELiOS is useful to us for all sorts of reasons, for example because it coordinates the collaboration within a project well, but it is especially necessary for the link to our ERP package. When I came to work here seven years ago, we still had our own database system. Due to growth, at a certain point it no longer sufficed, and we opted for Ridder iQ, a well-known name in the manufacturing industry. With the introduction of this new ERP system, the need for ready-to-use parts lists also increased. However, it turned out to be a lot of work to get them from HiCAD to Ridder iQ. There were tools available, but they were slow or didn't do exactly what we wanted. In addition, there were more and more draftsmen in the engineering department, so that keeping the drawing work manageable also became more and more important. Both issues could be solved with a PDM system, which is why we went in search of a package that would fit in well with our activities."

Implementation process

After some research, Van Leeuwen and his colleagues came to the conclusion that HELiOS would be a good choice as a PDM package: it is from the same supplier as HiCAD, so compatibility with the design software was guaranteed. The relationship with ISD Group was also so good that they were confident about the implementation process. When I came to work here, Martin Stolze did not yet have a service argreement with ISD, and as a result, we often ran into all kinds of obstacles: updates were not implemented automatically, and if we had any questions or problems, we had to figure it out ourselves because there was no support available. We then opted for a maintenance contract and that proved to be very useful indeed. Especially with the current demand for our products, it is useful that all software-technical matters run as smoothly as possible and the engineers have as little to do with peripheral matters as possible." In the spring of 2020 it was decided to go for HELiOS and in September of that year the implementation started. Not only did HELiOS have to be introduced, but the link to the ERP package also had to be established. "In total, more than twenty days of consultancy were involved," says Van Leeuwen, "sometimes online due to corona and finally the implementation was completed this spring. Currently, we are at the stage of entering all our existing products into HELiOS. That is just a lot of work, also because all the information has to be exported again to Ridder iQ. We have thousands of products and parts, and with the current demand for our products it is not easy to free up time for this."

Productconfigurator

All in all, the technical solutions are available at Martin Stolze, but they cannot yet be used optimally because regular work prevents the systems from being filled. „In order to make more progress in this, we as a company are therefore actively looking for extra engineers to help fill the various databases. I am hopeful that these people will come on board soon and that we will soon be able to benefit greatly from these solutions. In the longer term, we want to develop a product configurator so that we can we can design customer-specific products even faster, but it is really too early for that now. That in itself is not a bad thing, because we can handle the work with HELiOS and HiCAD perfectly well, but it can of course never hurt to look a little further ahead."