Straight Talk from CAD Designers

Why I Choose Pro/ENGINEER® Over SolidWorks®

Hear what designers are saying about Pro/ENGINEER

Feature Article

PTC®

DID YOU KNOW

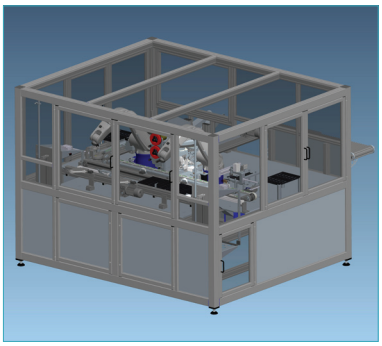
As an engineering consultant working with several diverse Danish manufacturers, Carsten Simonsen of 2e teknik is required to use the design tools that his clients have selected. Some clients, such as Neros Automation, have chosen PTC's 3D product design software solution Pro/ENGINEER. Other 2e teknik clients utilize SolidWorks as their 3D CAD tool. Therefore, Simonsen needs to work with both systems on a daily basis.

Neros Automation, one of 2e teknik's largest clients, is a leader in Denmark's electronics industry. The company develops sophisticated robotic manufacturing systems for the assembly of circuit boards into electronic devices. Neros Automation hired Simonsen and 2e teknik to help design a robotic production line, which they call Flexihand®, using Pro/ENGINEER.

Using the work he does for Neros as an example, Simonsen explains why he prefers working with Pro/ENGINEER, and why he thinks PTC has designed this 3D CAD tool to be "engineering right."

Carsten Simonsen
Engineering Consultant, 2e teknik
Denmark

Flexihand® is Neros Automation's robotic-based handling equipment which increases yield repeatability and enables fast production and flexibility.



Flexihand was designed using Pro/ENGINEER.

Why Pro/ENGINEER is better than SolidWorks

Pro/ENGINEER is natural for engineers, offering more possibilities

"For an engineer, the Pro/ENGINEER tool feels more natural to me. I feel I have more possibilities with Pro/ENGINEER than SolidWorks. It feels more 'right' when I work with it. It is as if the folks that designed it were on the same page with me in terms of my engineering background and the depth of what I am looking to do.

With a well thought out product like Pro/ENGINEER, 3D modeling becomes as easy as possible. It is the sum of many little things that makes me feel I am doing 'engineering right'. In the design phase, where you actually make the 2D drawing before you extrude the parts, I much prefer working in Pro/ENGINEER because making simple sketches for generating 3D models is much easier in Pro/ENGINEER than in SolidWorks. For example, Pro/ENGINEER understands when elements should be pre-constrained. In SolidWorks, I have to constrain geometry afterwards.

While facilitating many design tasks in all stages of product development, the Pro/ENGINEER software also opens up new ways of doing things. It offers a wealth of functionality that allows me to be truly innovative and create very refined designs. Especially when designing complex products for a customer like Neros Automation, it is important that the software does not limit my creativity. With Pro/ENGINEER, there is no 'functionality ceiling'–so I can truly be innovative and deliver better designs for my customers."

Pro/ENGINEER makes working with large assemblies easier

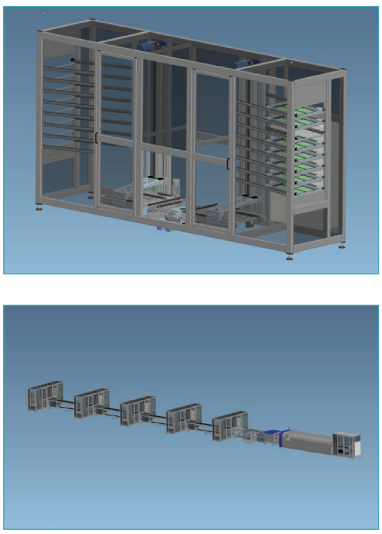
"When it comes to large assemblies, I am much happier when I develop the large assembly structure in Pro/ENGINEER than when I work on a similar project in SolidWorks, because constraining parts in SolidWorks is more difficult. The Neros Automation Soldering Wave Line is one of the larger projects I have worked on, with more than 6,000 parts and approximately 35 metres in length.

Pro/ENGINEER made it easy to navigate this large assembly and let me tackle the project relatively quickly. Pro/ENGINEER's 'skeleton' functionality made it much easier to manage and control the assembly, and also made the whole process easier to understand. I always feel safer in my construction phase when working with Pro/ENGINEER."

Pro/ENGINEER delivers stability

"Finally, talking about safety, another aspect that is very important for me as a provider of engineering services, is stability of the software. I have to know I can get my work done for my clients. I have just changed over to the 2009 version of SolidWorks, and I think it's less stable than Pro/ENGINEER.

For example, sometimes when using the Toolshop, SolidWorks can close on my computer without warning. As a service provider, crashes cost me valuable time; I end up waiting around for SolidWorks, when I know I would be moving forward with my designs on Pro/ENGINEER."



The Neros Automation Soldering Wave Line has more than 6,000 parts, and is approximately 35 metres in length.

"I use both systems because this is what is dictated by my customers, but I feel Pro/ENGINEER has a lot more opportunities than SolidWorks. Pro/ENGINEER equips me well for all tasks a customer may have for me. I would use it for all of my consulting work, except that some of my customers have already implemented other tools."

– Carsten Simonsen, Mechanical and Industrial Engineering Consultant, 2e teknik

Pro/ENGINEER: Driving Design Forward

As a mechanical engineer with 12 years of experience and two years running his own engineering consultancy, Carsten Simonsen has worked with a range of 3D design tools to harness product development activities and create great products for his clients. For him, PTC's Pro/ENGINEER is the solution of choice.

Neros Automation, Simonsen's customer, also believes Pro/ENGINEER is the best choice for them. By using Pro/ENGINEER in designing their robotic handling systems, Neros produces systems with the utmost quality and robust designs, which bring a competitive advantage in their market.

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