

TactonWorks: interactive engineer-to-order configurator in SolidWorks

TACTONWORKS IS THE FIRST STATE-OF-THE-ART PRODUCT CONFIGURATOR INTEGRATED INSIDE A PROFESSIONAL 3D CAD SYSTEM. TACTON CONFIGURATOR HAS FOR ALMOST A DECADE BEEN AT THE LEADING EDGE OF PRODUCT CONFIGURATION, SUPPORTING MANUFACTURERS WITH CUSTOM CONFIGURED QUOTATIONS AND BOMS FOR ORDER PROCESSING. TACTONWORKS MAKES THESE OUTSTANDING CAPABILITIES AVAILABLE TO THE SOLIDWORKS COMMUNITY.



Target industries

Manufacturers with a need for order-specific customization of the product design, e.g. engineer-to-order, assemble-to-order, or configure-to-order, where rules can define what is a valid design for the customer's requirements.

Benefits of product configuration in SolidWorks

- Engineers can quickly generate custom drawings and 3D models for quotations.
- Automate routine engineering tasks in design-to-order processes with custom sizing down to the manufacturing level of detail, integrating manual design changes for customer specific features and components.
- The migration from 2D to 3D is facilitated by quickly generating custom 3D models instead of reusing old drawings to modify for new requirements.
- Thousands of variants with unique CAD files can be generated automatically in batch mode.
- Web site users can interactively create custom configured products and view or download dynamically generated images or CAD files.

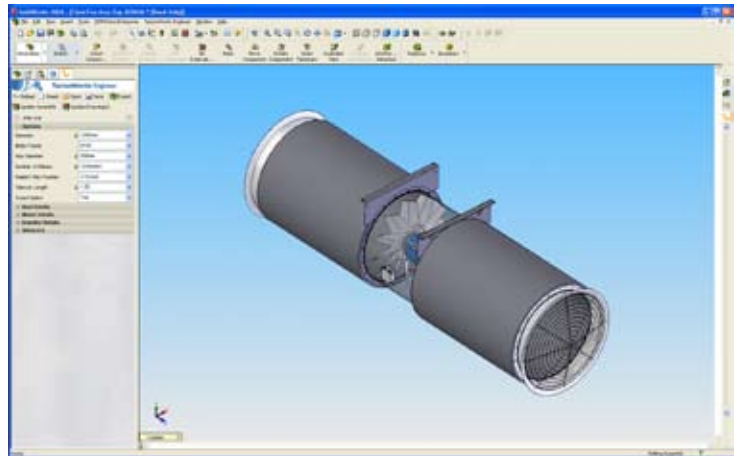
The unique features of TactonWorks

The advantage of TactonWorks over competing Knowledge Based Engineering solutions for SolidWorks is as significant as the advantage of 3D CAD over 2D CAD, in terms of interactivity, validation, and ease of maintenance. Tacton is also a long-standing leader in sales configuration, making it easy to extend the KBE solution to a robust enterprise-wide sales configuration solution.

Runs within the SolidWorks window

TactonWorks Engineer is a SolidWorks add-in, which runs the powerful Tacton Configurator engine inside the SolidWorks user interface, next to the assembly document. Users can easily create optimal configurations of highly complex products, and automatically generate complete SolidWorks assemblies and drawings on the fly.

As soon as the user changes a requirement, the assembly is immediately updated in the same window, making it easy to directly view the consequence of each change in 3D. The user can even change the 3D model manually in SolidWorks, for customer specific features or components, and keep changing the model using TactonWorks.



TactonWorks can dynamically create any kinds of SolidWorks assemblies and sub-assemblies, including any combination of parts and part configurations, driving any dimensions and states, as well as mates, features, and properties.

Highly interactive

The unique interactivity of the Tacton Configurator engine empowers the user to explore all configuration alternatives and create the optimal configuration for the customer needs. Selections and inputs can be made in any sequence. The user will always see which options are compatible with the requirements defined so far, and TactonWorks will automatically advise on how to resolve conflicting choices. A valid configuration solution is always generated, even if the user has only input partial requirements.

Ease of rules maintenance in TactonWorks Studio

The design rules are defined using TactonWorks Studio, a graphical point-and-click environment with no need to type in rules as text. A parametric product model is defined graphically, which is mapped by point-and-click to the corresponding SolidWorks parameters. Engineers can define the dependencies and calculations concisely using configuration constraints, which drastically reduces the number of rules compared to competing Knowledge Based Engineering solutions. This greatly facilitates the task of validating and updating design rules for the configurator. The automatic validation of logical consistency will detect conflicting rules.

Comprehensive sales configuration solutions

TactonWorks can be extended to an enterprise-wide product configuration solution for sales and order processing, including customer self-service and e-commerce. TactonWorks is 100% compatible with Tacton Configurator, which is a long-standing leader in sales configuration, empowering sales users and customers to configure optimal solutions based on the customer's needs, either on the web or off-line on a laptop. Quotations can be generated in any format, and CAD files can be generated automatically using TactonWorks Server.

Designed for integration

Tacton Configurator is designed to extend any other applications with outstanding configuration capabilities, with the lowest total cost of ownership. It has a highly modular design, which makes it possible to embed and deploy equally well in a rich client Windows environment as in a large scale web server environment, using .NET or J2EE. The web deployment requires only a normal thin client web browser. This means that end-users do not need to install plug-ins or so called "Smart Client Technology", which often causes issues with security settings and IT policies.

TactonWorks Products

TactonWorks Engineer

TactonWorks Engineer runs as a SolidWorks add-in. It runs the Tacton Configurator engine inside the SolidWorks user interface, where the user can interactively define configuration requirements and create optimal configurations of the product, which will be automatically turned into complete SolidWorks assemblies and drawings on the fly inside SolidWorks. Every user who needs to configure assemblies and drawings in SolidWorks will need an installation of TactonWorks Engineer and a license. It can also be used as a test environment for TactonWorks Studio, TactonWorks Batch, and TactonWorks Server.

TactonWorks Studio

TactonWorks Studio is used to define the product configuration rules. It is a graphical point-and-click environment, where the engineer can define the rules without programming. The rules are expressed using powerful attribute constraints, which concisely capture the configuration dependencies. Component data can be imported from Microsoft Excel. The parameters, constraints, and data of the product line are stored in a configuration model file. In the configuration model, the Studio user will also define the parameter mapping between the Tacton configuration model and the SolidWorks models, by point-and-click. TactonWorks Studio is a rich client installation. Those engineers who are responsible for maintaining the high level configuration rules need an installation and a license. TactonWorks Studio requires SolidWorks running on the same machine.

TactonWorks Batch

TactonWorks Batch is a Windows application which can generate CAD files and images for many configurations in batch mode. The user can specify the required range of configurations. TactonWorks Batch will then generate all valid configurations within that range, and generate the specified CAD files and images for each configuration in that range. TactonWorks Batch is a rich client application, and every user who needs to batch generate CAD files will need a license and an installation. TactonWorks Batch requires SolidWorks running on the same machine.

TactonWorks Server

Tacton offer a range of Tacton Configurator solutions for supporting sales users and customers to configure products, over the web or off-line in the field. TactonWorks Server is a web service which enables non-SolidWorks users of Tacton Configurator to automatically generate custom configured CAD files, using the CAD side of TactonWorks Engineer. Instead of having its own configuration engine, TactonWorks Server is invoked over the network or internet by an application of Tacton Configurator, which makes a web service request with a configuration result, and TactonWorks Server can return the requested CAD files for viewing or downloading in the common formats of SolidWorks, e.g. drawings, STEP, IGES, e-drawing, jpeg, etc. TactonWorks Server requires Microsoft IIS and access to the SolidWorks API on the same machine.



Tacton Systems - cutting edge configuration technology

Tacton is based on two decades of cutting edge R&D in product configuration and sales configuration, beginning in 1987 at the Swedish Institute of Computer Science. Tacton Configurator is in production use since 1998 by a wide spectrum of leading manufacturing companies of all sizes around the world, such as Ericsson, GE Healthcare, ABB, Pentair, Hoffman Enclosures, ASSA ABLOY, Black Box, Albany Door Systems and Fläkt Woods.

In working with leading manufacturers, Tacton has the expertise and proven technologies to automate your sales and product configuration processes, including pricing, quoting, proposals, BOM and other documentation. Tacton Configurator tightly integrates with ERP systems as well as CRM, e-commerce, PLM, and CAD. Tacton gives you the competitive edge with a needs-based approach to configuration, making it easier for users to create the optimal solution for the customer's requirements. It can configure anything from simple products to the most complex dynamic equipment with the same ease of use.

For more information, please visit www.tacton.com



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