Solid Edge NVP

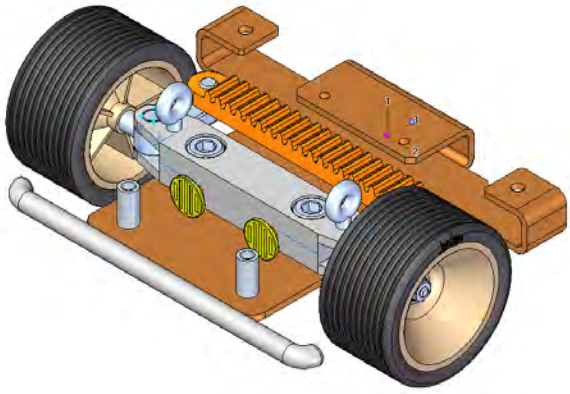
Configurator

The *Solid Edge NVP Configurator* is a simple yet powerful tool for creating "custom standard" products based on so called **150%** assemblies containing all product options. *Configurator* is driven by an Excel sheet containing:

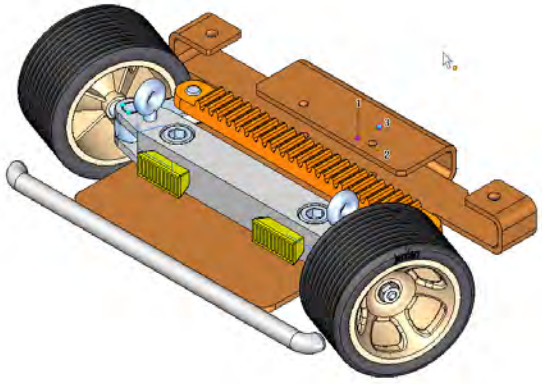
- User Input – Configuring the product
- Variables – Change values and suppress features
- Occurrence status – turn on / off product options
- Material selection – Assign material to parts with multiple options

The main purpose of Configurator is to customize a product in minutes rather than hours using the standard Solid Edge way.

That means going from this default design:



to this variant in less than **15** seconds



How it works:

The Excel sheet contains half of what you need to configure a variant – the rest is inside the Solid Edge assembly.

Let's start with the Excel sheet. It looks like we link Solid Edge variables with Excel cells **– we don't.** This would be a dangerous way to go. Cells can move and links are tough on performance. Instead we "push" values from column "B" into the variables named as in column "A". Several parts can contain the same variable name. In the example "Width" is used in **4** of the parts.

Variables are also used to suppress features – as it is just a value **0** or **1**. Fixture_Cut is an example of that – it is used to control cutting of a round hole below the two round fixtures behind the bumper.

And finally occurrences (parts) can be turned on / off. This is used to select the round or square flash lights. The "Flash Light" selection in the top of the Excel sheet is choosing the Flash Light from a drop down list.

The yellow fields are input fields and the blue fields are calculations and rules.

	A	B	C	D	E	F
1	**Select Option**					
2	Flash Light	Round				
3	Fixtures	Yes		Kør		
4						
5	**Variables**					
6	Width	80				
7	Wheel_Angle Input	90				
8	Wheel_Cut	1	Supp			
9						
10	**Calculations**					
11	Wheel_Angle	1570,796				
12	Fixture_Cut	0	Supp			
13						
14	**Occurrences**					
15	Fix-02.par:1	1				
16	Fix-02.par:2	1				
17						
18	Flash Round.par:1	1				
19	Flash Round.par:2	1				
20						
21	Flash Square.par:1	0				
22	Flash Square.par:2	0				
23						
24	eof					

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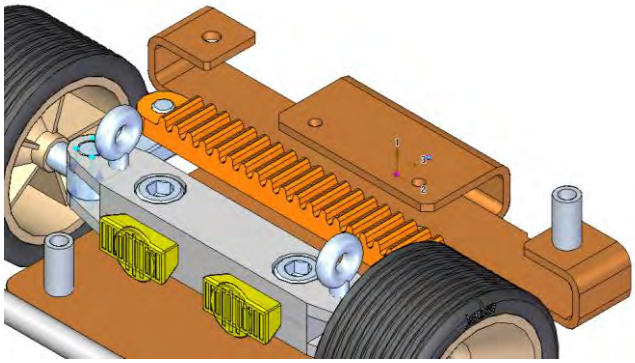
Solid Edge NVP Configurator Fact Sheet

Now let's have a look at the Solid Edge side of it. In Solid Edge you design a **"150 %"** assembly which contains all the possible components. The Configurator will in turn show some components and hide other components. It is not important where the components are located initially – they can change place during the process. So, you do not need to manage component insertion, just component removal or repositioning. This is considered the complex part – dimensioning and feature suppression is the easy part. In the example you can see both multiple component and component repositioning.



Product- or Sales Configuration:

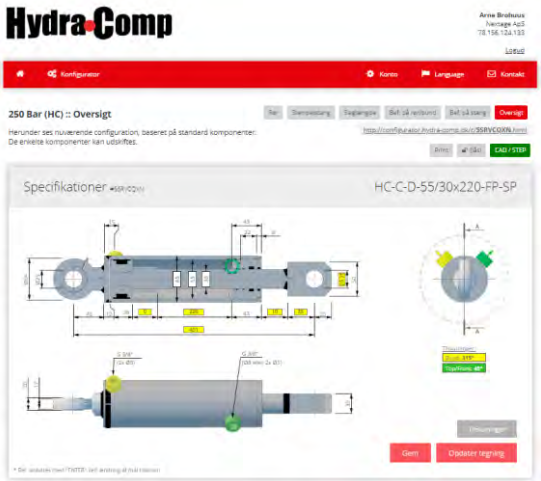
This has been discussed heavily for more than **20** years. Very few companies have been able to justify the investment in a product configurator and the tremendous work of preparation. And, even fewer have been able to implement it.

Therefor we take a pragmatic approach which is:

- At first forget about configuring a total solution, it is too complex and end up being inflexible.
- Find a number of decent sized "standard component" – medium size assemblies.
- Organize dimensions (variable names) across the component so that a minimum number of variables are necessary. Then add the alternative components to the master assembly.
- Add variables and rules to an Excel Spread Sheet.
- Have a look a Excel amazing dropdown list. They are themselves a kind of configurator.
- Then build the total solutions of the smaller components

Case Story – Hydra-Comp

Hydra-Comp have built their own web-based configurator using the NVP Configurator engine to handle the Solid Edge part of it. They planned for a **75 %** reduction of time spent on order processing of hydraulic cylinders. They ended up with a fully automated process providing customers with step files of the cylinder.



Start with the video:

https://hydra-comp.com/da/video/konfigurator-med-3d

Now you have seen what to do, then visit their web to try it for yourself:

http://configurator.hydra-comp.dk/index.php

Do you want to try the solution?

Give a call to Arne Brohuus,
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About NEXTAGE and NEXTAGE Value Package
NEXTAGE Value Package is applied knowledge from NEXTAGE Group. With 15 years of experience with PLM, CAD/CAM and CAE NEXTAGE has a unique insight and knowledge of challenges and opportunities for companies working with design and management of products. NEXTAGE is a Siemens PLM Software Smart Expert partner for Solid Edge, NX and Teamcenter.

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