

VariCPQ for Salesforce Tutorial

The Leading Offering Management Company



variantum

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What is VariCPQ?

VariCPQ is an easy-to-use sales configurator integrated to Salesforce.

All data for a sales model (product options, constraints, prices and user interface settings) is represented as an Excel document. A configurator user interface is generated automatically from the sales model.

Whenever a user modifies selections for product options, the tool checks the configuration rules and guides the user to select valid product combinations. The tool also updates the feature-based price of the product after each option modification.

After VariCPQ has been installed from AppExchange, product administrators can edit and attach sales models as Excel documents to Salesforce. VariCPQ uses Salesforce user accounts and returns price, technical summary and configuration status back to Salesforce opportunity.

What is VariCPQ?

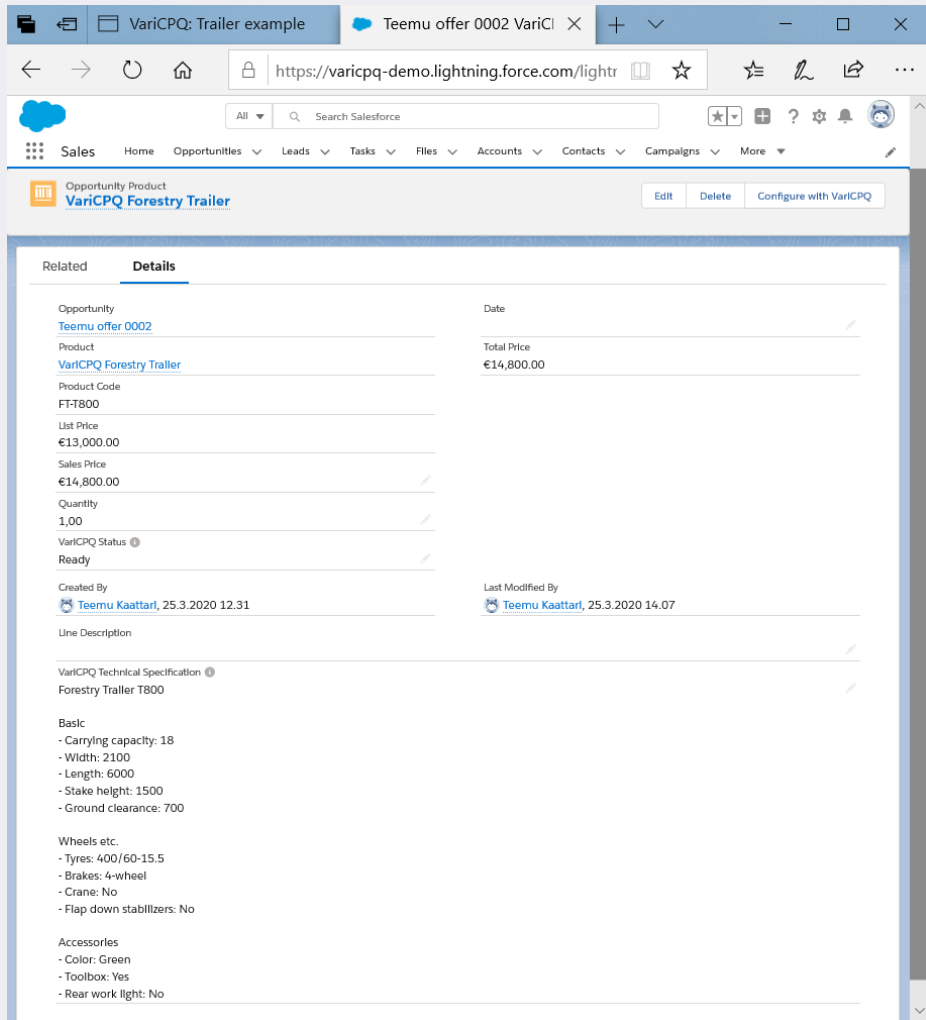
VariCPQ sales configurator modeled in EXCEL and connected to Salesforce product and opportunity

The top screenshot shows a Salesforce Opportunity record for 'Forestry Trailer T800'. The 'Configure with VariCPQ' button is highlighted with a red box. The bottom screenshot shows the VariCPQ web interface for the same product. It displays configuration options for 'Basic', 'Carrying capacity', 'Width', and 'Length'. The 'Carrying capacity' section has radio buttons for 12 tons (1000 EUR), 14 tons (2000 EUR), 16 (3000 EUR) (selected), 18 (4000 EUR), and 20 (5000 EUR). The 'Width' section has a text input field with the value 2350. The 'Length' section has a text input field with the value 6500. The total price is 13600 EUR and the status is 'Incomplete'.

TYPE	ID	DEFAULT	NAME	PRICE EUR	DESC en	INFO en
PRODUCT	VM00000230VA			10000	Forestry Trailer T800	
GROUP	BASIC				Basic	
PARAMETER	CARRYING_CAPACITY				Carrying capacity	How much stuff can be loaded on the trailer
	12			1000	12 tons	Twelve tons
	14			2000	14 tons	
	16	X	HEAVY_LOAD	3000		Sixteen tons
	18		HEAVY_LOAD	4000		
	20		HEAVY_LOAD	5000		
PARAMETER	WIDTH	2350			Width	
	2100.. 2300			0		
	2301.. 2600			100		
PARAMETER	LENGTH	6500			Length	
	6000.. 7500					
PARAMETER	STAKE_HEIGHT				Stake height	
	500.. 999					
	1000	X				
	1001.. 2000					
PARAMETER	GROUND_CLEARANCE	800			Ground clearance	
	700.. 1000					
GROUP	WHEELS				Wheels etc.	
PARAMETER	TYRES				Tyres	
	300/55-17	X	SMALL WIDE	100		
	400/60-15.5		BIG WIDE	200		
	600/45-17		BIG	300		
PARAMETER	BRAKES				Brakes	
	2-wheel			200		
	4-wheel		BRAKES_4	400		
PARAMETER	CRANE				Crane	
	NO	X		0	No	
	YES		CRANE	2500	Yes	
PARAMETER	FLAP_DOWN_STABILIZER				Flap down stabilizers	
	NO	X			No	
	YES		FLAPS	1000	Yes	
GROUP	ACCESSORIES				Accessories	
PARAMETER	COLOR				Color	
	red	X			Red	
	green				Green	
	blue				Blue	
PARAMETER	TOOLBOX				Toolbox	
	NO	X			No	
	YES		TOOLBOX	200	Yes	
PARAMETER	REAR_WORK_LIGHT				Rear work light	
	NO	X	NO_LIGHT		No	
	YES		LIGHT	100	Yes	

Configure opportunity products

Configure opportunity product in VariCPQ and get back price, features and status

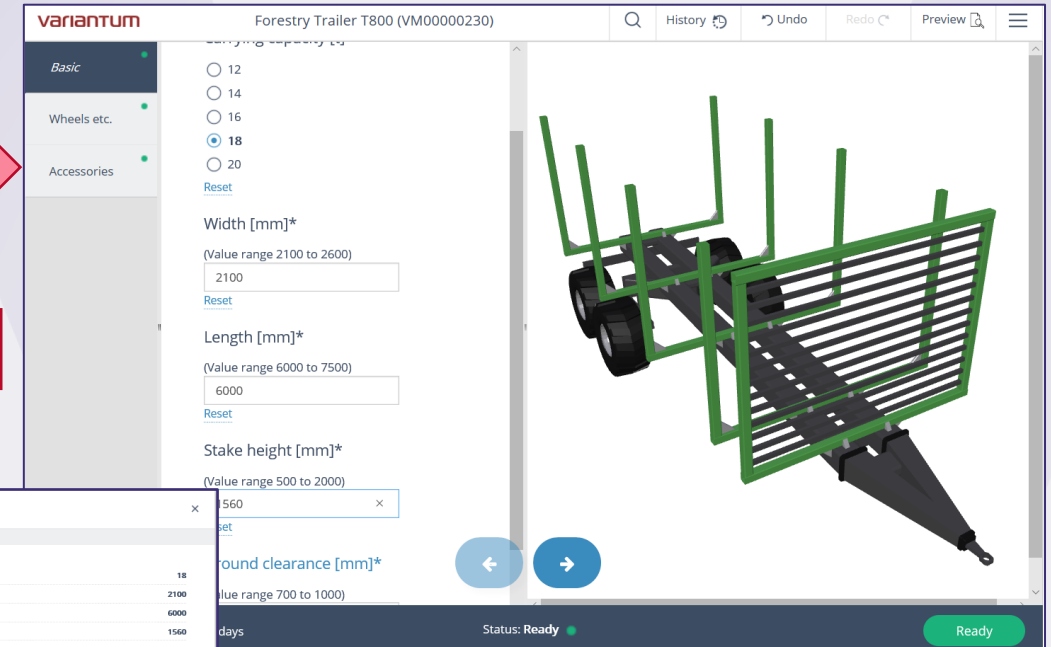


The screenshot shows a Salesforce Opportunity record for a "VariCPQ Forestry Trailer". The "Details" tab is active, displaying the following information:

- Opportunity:** Teemu offer 0002
- Product:** VariCPQ Forestry Trailer
- Product Code:** FT-T800
- List Price:** €13,000.00
- Sales Price:** €14,800.00
- Quantity:** 1.00
- VariCPQ Status:** Ready
- Created By:** Teemu Kaattari, 25.3.2020 12.31
- Last Modified By:** Teemu Kaattari, 25.3.2020 14.07
- Line Description:** VariCPQ Technical Specification: Forestry Trailer T800
- Basic:**
 - Carrying capacity: 18
 - Width: 2100
 - Length: 6000
 - Stake height: 1500
 - Ground clearance: 700
- Wheels etc.:**
 - Tyres: 400/60-15.5
 - Brakes: 4-wheel
 - Crane: No
 - Flap down stabilizers: No
- Accessories:**
 - Color: Green
 - Toolbox: Yes
 - Rear work light: No

Configure

Results



The screenshot shows the Variantum configuration interface for a "Forestry Trailer T800 (VM00000230)". The interface includes a sidebar with "Basic", "Wheels etc.", and "Accessories" sections. The main area displays configuration options with radio buttons and input fields:

- Carrying capacity:** 12, 14, 16, 18 (selected), 20. Reset button.
- Width [mm]*:** (Value range 2100 to 2600) 2100. Reset button.
- Length [mm]*:** (Value range 6000 to 7500) 6000. Reset button.
- Stake height [mm]*:** (Value range 500 to 2000) 1500. Reset button.
- Ground clearance [mm]*:** (Value range 700 to 1000) 700. Reset button.

At the bottom, there is a "Ready" status indicator and a "Ready" button. A 3D visualization of the trailer is shown on the right side of the interface.

Picture from VariSales with optional 3D visualization

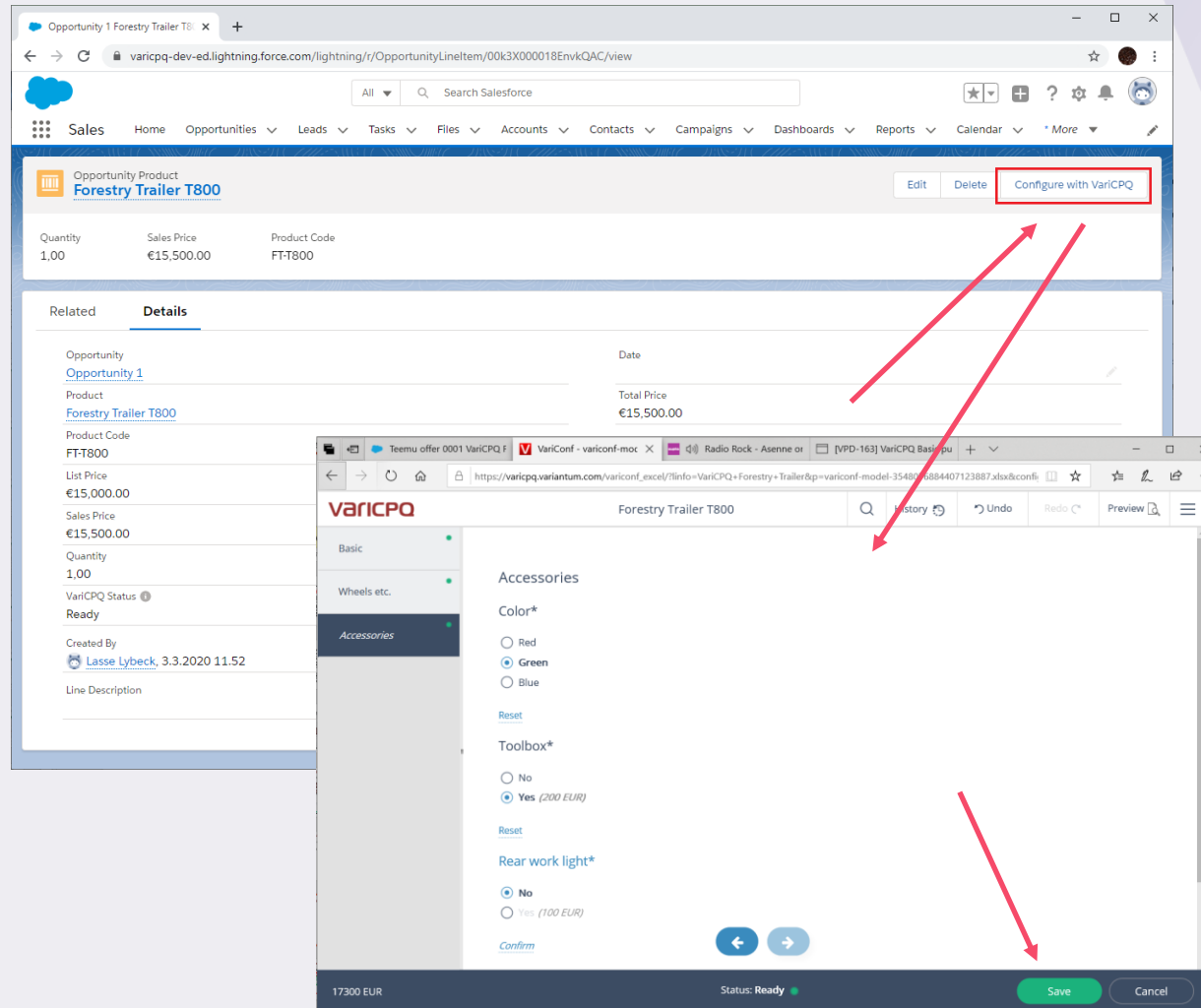
Variantum

How to Purchase and install VariCPQ?

- VariCPQ license is purchased from Salesforce AppExchange
- VariCPQ Application is installed during purchase
- VariCPQ uses Variantum's web-service during configuration



Launching configurator from Salesforce opportunity product



- Go to opportunity and product
- Click **Configure with VariCPQ**
- Configure product, and when ready click **Save**
- **Price, features** and **status** are returned to Salesforce opportunity product

VariCPQ standard user interface

Standard user interface and Configuration model view

The screenshot displays the VariCPQ standard user interface for configuring a 'Forestry Trailer T800'. The interface is divided into several sections:

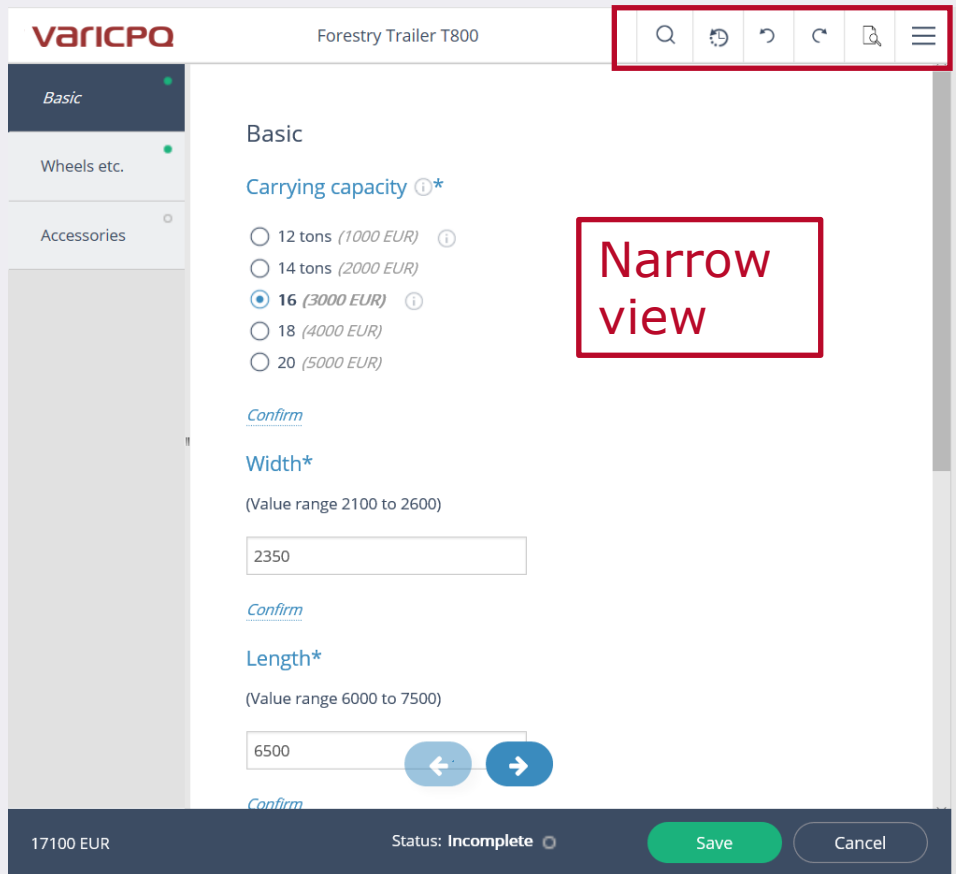
- Header:** The 'varicpq' logo is on the left, and the product name 'Forestry Trailer T800' is in the center. On the right, there is a search bar and navigation buttons: 'History', 'Undo', 'Redo', and 'Preview'.
- Left Sidebar:** A vertical menu with 'Basic' (selected), 'Wheels etc.', and 'Accessories'.
- Main Content Area:**
 - Basic Section:** Contains 'Carrying capacity' with radio button options: 12 tons (1000 EUR), 14 tons (2000 EUR), 16 (3000 EUR) (selected), 18 (4000 EUR), and 20 (5000 EUR). Below this is a 'Width*' input field with a value of 2350 and a 'Length*' input field with a value of 6500. Both have 'Confirm' links and value ranges (2100 to 2600 for width, 6000 to 7500 for length).
 - Navigation:** At the bottom of the main content area, there are left and right arrow buttons.
- Footer:** A dark bar at the bottom showing the total price '17100 EUR' (highlighted with a green box), the status 'Status: Incomplete', and 'Save' and 'Cancel' buttons.

Annotations on the right side of the image:

- A red box labeled 'Standard user interface' has arrows pointing to the top navigation bar, the left sidebar, the main content area, and the footer.
- A blue box labeled 'Product, Grouping, parameters, rules and prices are defined in EXCEL' has arrows pointing to the 'Carrying capacity' options, the 'Width*' field, and the 'Length*' field.

VariCPQ standard user interface

Window size(width) compresses menu texts



The narrow view of the VariCPQ interface for a 'Forestry Trailer T800'. The top bar contains the 'varicpq' logo, the product name, and a menu icon. The left sidebar shows 'Basic', 'Wheels etc.', and 'Accessories'. The main content area is titled 'Basic' and includes a 'Carrying capacity' section with radio buttons for 12 tons (1000 EUR), 14 tons (2000 EUR), 16 tons (3000 EUR) (selected), 18 tons (4000 EUR), and 20 tons (5000 EUR). Below this is a 'Width*' section with a value range of 2100 to 2600 and a text input field containing '2350'. Further down is a 'Length*' section with a value range of 6000 to 7500 and a text input field containing '6500' with left and right arrow buttons. The bottom bar shows '17100 EUR', 'Status: Incomplete', and 'Save' and 'Cancel' buttons. A red box highlights the menu icon in the top bar, and another red box highlights the 'Narrow view' text.

varicpq Forestry Trailer T800

Basic

Wheels etc.

Accessories

Basic

Carrying capacity ⓘ*

☐ 12 tons (1000 EUR) ⓘ

☐ 14 tons (2000 EUR)

☒ 16 (3000 EUR) ⓘ

☐ 18 (4000 EUR)

☐ 20 (5000 EUR)

[Confirm](#)

Width*

(Value range 2100 to 2600)

2350

[Confirm](#)

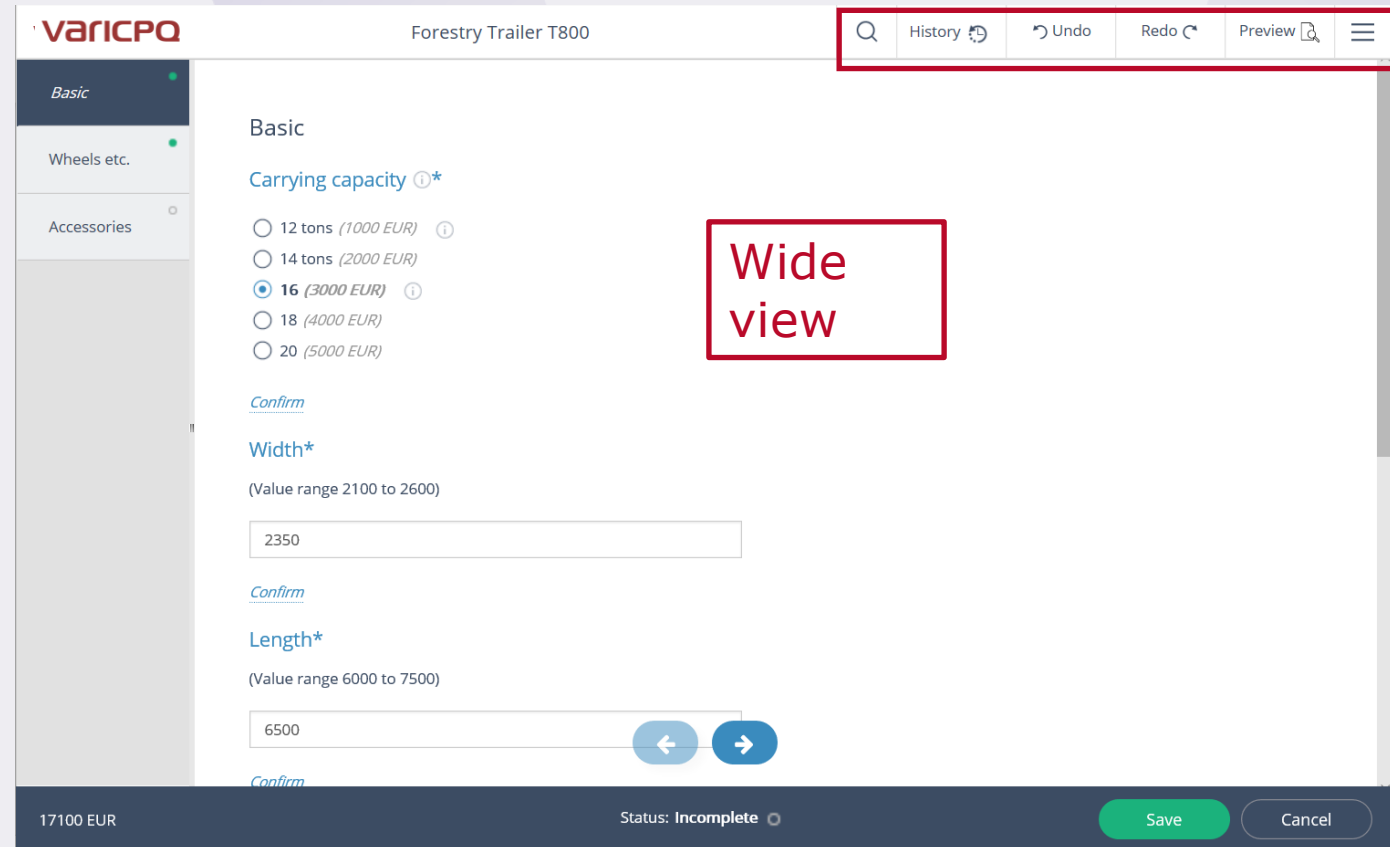
Length*

(Value range 6000 to 7500)

6500

17100 EUR Status: Incomplete [Save](#) [Cancel](#)

Narrow view



The wide view of the VariCPQ interface for a 'Forestry Trailer T800'. The top bar contains the 'varicpq' logo, the product name, and a menu icon. The left sidebar shows 'Basic', 'Wheels etc.', and 'Accessories'. The main content area is titled 'Basic' and includes a 'Carrying capacity' section with radio buttons for 12 tons (1000 EUR), 14 tons (2000 EUR), 16 tons (3000 EUR) (selected), 18 tons (4000 EUR), and 20 tons (5000 EUR). Below this is a 'Width*' section with a value range of 2100 to 2600 and a text input field containing '2350'. Further down is a 'Length*' section with a value range of 6000 to 7500 and a text input field containing '6500' with left and right arrow buttons. The bottom bar shows '17100 EUR', 'Status: Incomplete', and 'Save' and 'Cancel' buttons. A red box highlights the menu icon in the top bar, and another red box highlights the 'Wide view' text.

varicpq Forestry Trailer T800

Basic

Wheels etc.

Accessories

Basic

Carrying capacity ⓘ*

☐ 12 tons (1000 EUR) ⓘ

☐ 14 tons (2000 EUR)

☒ 16 (3000 EUR) ⓘ

☐ 18 (4000 EUR)

☐ 20 (5000 EUR)

[Confirm](#)

Width*

(Value range 2100 to 2600)

2350

[Confirm](#)

Length*

(Value range 6000 to 7500)

6500

17100 EUR Status: Incomplete [Save](#) [Cancel](#)

Wide view

VariCPQ standard user interface

Varicpq Forestry Trailer T800

Basic

Wheels etc.

Accessories

Carrying capacity ⓘ*

☐ 12 tons (1000 EUR) ⓘ

☐ 14 tons (2000 EUR)

☒ 16 (3000 EUR) ⓘ

☐ 18 (4000 EUR)

☐ 20 (5000 EUR)

Confirm

Width*

(Value range 2100 to 2600)

2350

Confirm

Length*

(Value range 6000 to 7500)

6500

Confirm

17100 EUR

Status: Incomplete ⓘ

Save Cancel

History Undo Redo Preview

Status of page parameters
Green=ready
Grey=incomplete
Red=conflict

Use arrows to jump between pages or click page

- Navigate between parameter groups (see user interface and group definitions in modeling part)
- After each selection configurator analyses product and calculates price
- Selections can be made in any order

VariCPQ standard user interface

The screenshot displays the VariCPQ standard user interface for the 'Forestry Trailer T800'. The interface includes a sidebar with categories: Basic, Wheels etc., and Accessories. The main content area shows configuration options for 'Color*' (Red, Green, Blue) and 'Toolbox*' (No, Yes (200 EUR)). The 'Rear work light*' section has options for 'No' and 'Yes (100 EUR)'. A search bar is located at the top right, with a search icon highlighted by a red box and the number 1. The search results are displayed below the search bar, showing 'Found 1' and a list of results. The search text 'tool' is entered in the search bar, and the number 2 is next to it. The search results are shown with a list of items, and the number 3 is next to the 'Toolbox*' section. The number 4 is next to the search bar. The interface also includes a 'Reset' button, a 'Confirm' button, and a 'Confirm selections above' link. At the bottom, there is a status bar showing '17100 EUR', 'Status: Incomplete', and 'Save' and 'Cancel' buttons.

Search:

1. Click search icon
2. Fill search text and click <enter>.
3. Search will show results
4. With arrows down/up you can jump matched results.

VariCPQ standard user interface

varicpq Forestry Trailer T800

Basic
Wheels etc.
Accessories

Wheels etc.

Tyres*

☐ 300/55-17 (100 EUR)
☒ 400/60-15.5 (200 EUR)
☐ 600/45-17 (300 EUR)

[Reset](#)

Brakes*

☐ 2-wheel (200 EUR)
☒ 4-wheel (400 EUR)

[Confirm](#)

Crane*

☐ No (0 EUR)
☒ Yes (2500 EUR)

[Reset](#)

Flap down stabilizers*

17200 EUR Status: Ready Save Cancel

History

- Forestry Trailer T800: Toolbox : No
- Forestry Trailer T800: Toolbox : Yes
- Forestry Trailer T800: Toolbox : No
- Forestry Trailer T800: Flap down stabilizers : Yes
- Forestry Trailer T800: Tyres : 400/60-15.5
- Forestry Trailer T800: Toolbox : Yes
- Forestry Trailer T800: Toolbox : No

History:

1. Click history icon
2. You can jump back to any step in history.

Note: history is recorded only during current session

VariCPQ standard user interface

VARICPQ Forestry Trailer T800

Basic

Wheels etc.

Accessories

Color*

☐ Red

☒ Green

☐ Blue

Reset

Toolbox*

☐ No

☐ Yes (200 EUR)

Rear work light*

☒ No

☐ Yes (100 EUR)

Confirm

Confirm selections above

17200 EUR

Status: Incomplete

Save Cancel

Undo Redo

1

Undo and Redo:

1. Click undo or redo icon as many time as you want to go back or forward.

Note: undo and redo steps are recorded only in the current session. User interface highlights current selection.

VariCPQ standard user interface

Varicpo Forestry Trailer T800

Basic
Wheels etc.
Accessories

Red
Green

Forestry Trailer T800 - Ready

Selections

Basic	
Carrying capacity	16
Width	2450
Length	7000
Stake height	1000
Ground clearance	800
Wheels etc.	
Tyres	400/60-15.5
Brakes	4-wheel
Crane	Yes
Flap down stabilizers	Yes
Accessories	
Color	Green
Toolbox	Yes
Rear work light	No

17400 EUR

Cancel

Preview:

1. Click Preview icon
2. Preview lists all selected values in own window in group order (see grouping and parameters in excel modeling part)
3. Click x to close preview window

VariCPQ standard user interface

The screenshot shows the VariCPQ interface for configuring a 'Forestry Trailer T800'. The interface includes a top navigation bar with the 'Varicpq' logo, the product name, and utility buttons like 'History', 'Undo', 'Redo', and 'Preview'. A left sidebar contains a menu with 'Basic', 'Wheels etc.', and 'Accessories'. The main content area is titled 'Basic' and features a 'Carrying capacity' section with radio button options: '12 tons (1000 EUR)', '14 tons (2000 EUR)', '16 (3000 EUR)' (selected), '18 (4000 EUR)', and '20 (5000 EUR)'. Below this is a 'Width*' field with a value of '2350' and a 'Length*' field with a value of '6500'. A red box highlights the bottom status bar, which contains a price of '17100 EUR' (labeled 1), a status indicator 'Status: Incomplete' (labeled 2), a green 'Save' button (labeled 3), and a grey 'Cancel' button (labeled 4). Below the status bar, three status indicators are shown: 'Status: Conflicts' with a red triangle, 'Status: Ready' with a green circle, and 'Status: Incomplete' with a grey circle.

Varicpq Forestry Trailer T800

Basic

Carrying capacity ⓘ*

☐ 12 tons (1000 EUR) ⓘ

☐ 14 tons (2000 EUR)

☒ 16 (3000 EUR) ⓘ

☐ 18 (4000 EUR)

☐ 20 (5000 EUR)

[Confirm](#)

Width*

(Value range 2100 to 2600)

2350

[Confirm](#)

Length*

(Value range 6000 to 7500)

6500

17100 EUR

Status: Incomplete ⓘ

Save

Cancel

Status: Conflicts ▲

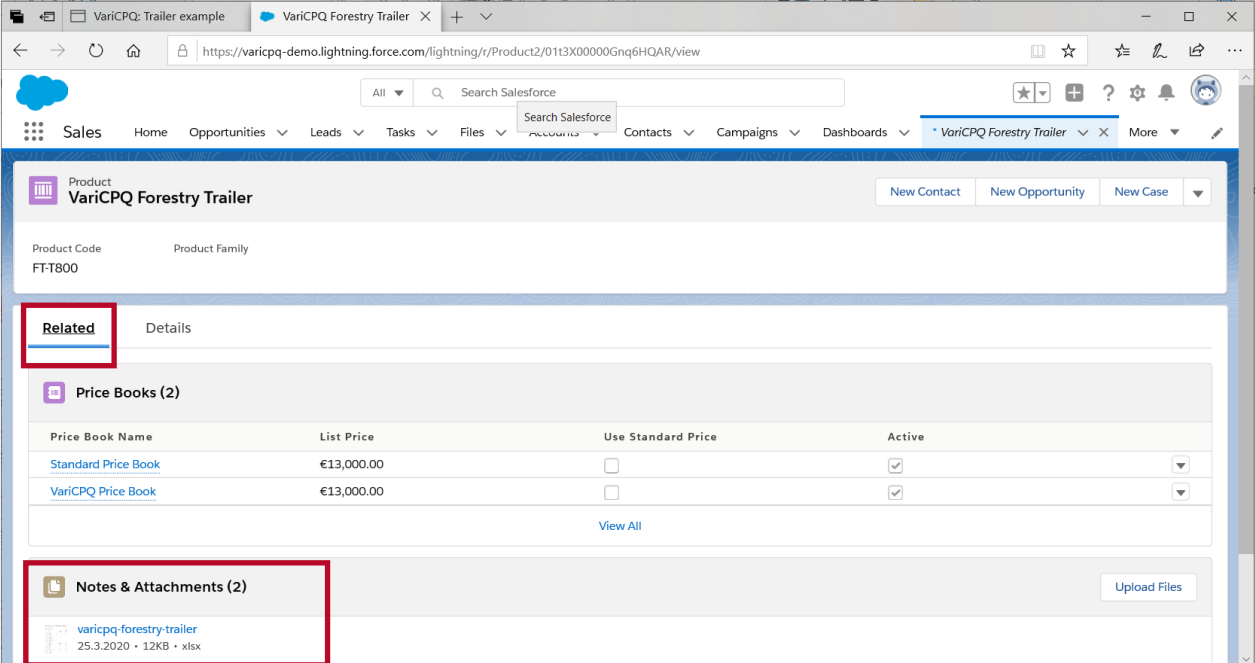
Status: Ready ●

Price, status, save and close buttons:

1. Price based on selections (see price calculation in modeling part)
2. Configuration status
3. Save and go back to Salesforce
4. Cancel and go back to Salesforce

Attaching configuration model to product in Salesforce

- Go to product
- Select **Related**
- In **Notes & Attachments** upload Excel file with name varicpq*.xlsx or varicpq*.xls
- Salesforce administrator needs to
 - *Enable Notes & Attachments in your Product Layout!*
 - *Add Configure with VariCPQ button to the Opportunity Product Layout*



The screenshot displays the Salesforce interface for the 'VariCPQ Forestry Trailer' product. The 'Related' tab is selected, showing a table of Price Books. The 'Notes & Attachments' section is also visible, showing an uploaded file named 'varicpq-forestry-trailer'.

Price Book Name	List Price	Use Standard Price	Active
Standard Price Book	€13,000.00	☐	☒
VariCPQ Price Book	€13,000.00	☐	☒

View All

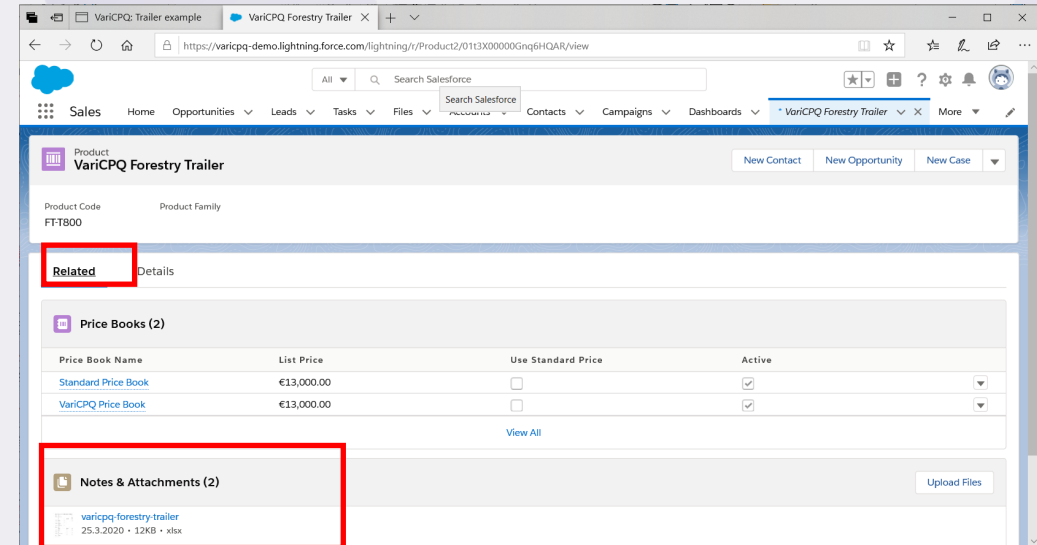
Notes & Attachments (2)

[varicpq-forestry-trailer](#)
25.3.2020 • 12KB • xlsx

Upload Files

How to model product, prices and user interface?

- Each product in Salesforce has its OWN Excel workbook!
 - To make a product with multiple price models, one must create separate products with separate Excel documents. This excel is converted to VariCPQ configurator in using Variantum web service.
- Excel location in Salesforce
 - Product model Excel is located in Salesforce product related page.



How to model product, prices and user interface?

Editing Excel

- General guidelines to edit Excel:
 - A workbook can contain any number of sheets
 - Configuration model sheets are specified in a predefined format
 - Non-configuration model sheets ignored
 - Hidden and very hidden sheets ignored
 - Sheets read in the order specified to the workbook (left to right)
 - Sheet names not used for anything
 - Empty rows ignored
 - Cells can be of any type (including formulas)
 - Cells can be formatted
 - Keywords can be written in any case

How to model product, prices and user interface?

Excel Row type and sales configurator user interface

Product

Group

Group parameters

Group

Group

	A	B	C	D	E	F	G
	TYPE	ID	DEFAULT	NAME	PRICE EUR	DESC en	INFO en
1	PRODUCT	VM00000230/A			1000	Forestry Trailer T800	
2							
3	GROUP	BASIC				Basic	
4							
5	PARAMETER	CARRYING_CAPACITY				Carrying capacity	How much stuff can be loaded on the trailer
6		12			1000	12 tons	Twelve tons
7		14			2000	14 tons	
8		16	X	HEAVY_LOAD	3000		Sixteen tons
9		18		HEAVY_LOAD	4000		
10		20		HEAVY_LOAD	5000		
11							
12	PARAMETER	WIDTH	2350			Width	
13		2100.. 2300				0	
14		2301.. 2600				100	
15							
16	PARAMETER	LENGTH	6500			Length	
17		6000.. 7500					
18							
19	PARAMETER	STAKE_HEIGHT				Stake height	
20		500.. 999					
21		1000	X				
22		1001.. 2000					
23							
24	PARAMETER	GROUND_CLEARANCE	800			Ground clearance	
25		700.. 1000					
26							
27	GROUP	WHEELS				Wheels etc.	
28							
29	PARAMETER	TYRES	X	SMALL WIDE	100	Tyres	
30		300/55-17					
31		400/60-15.5		BIG WIDE	200		
32		600/45-17		BIG	300		
33							
34	PARAMETER	BRAKES				Brakes	
35		2-wheel			200		
36		4-wheel		BRAKES_4	400		
37							
38	PARAMETER	CRANE	X			Crane	
39		NO			0	No	
40		YES		CRANE	2500	Yes	
41							
42	PARAMETER	FLAP_DOWN_STABILIZER	X			Flap down stabilizers	
43		NO				No	
44		YES		FLAPS	1000	Yes	
45							
46	GROUP	ACCESSORIES				Accessories	
47							
48							
49	PARAMETER	COLOR	X			Color	
50		red				Red	
51		green				Green	
52		blue				Blue	
53							
54	PARAMETER	TOOLBOX	X			Toolbox	
55		NO				No	
56		YES		TOOLBOX	200	Yes	
57							
58	PARAMETER	REAR_WORK_LIGHT	X	NO_LIGHT		Rear work light	
59		NO				No	
60		YES		LIGHT	100	Yes	
61							

17100 EUR Status: Incomplete Save Cancel

How to model product, prices and user interface?

VARICPO Forestry Trailer T800

Basic

Carrying capacity ⓘ

How much stuff can be loaded on the trailer

☐ 12 tons (1000 EUR) ⓘ
☐ 14 tons (2000 EUR)
☒ 16 (3000 EUR) ⓘ
☐ 18 (4000 EUR)
☐ 20 (5000 EUR)

Info can be used for detailed description

	A	B	C	D	E	F	G
	TYPE	ID	DEFAULT	NAME	PRICE EUR	DESC en	INFO en
1	PRODUCT	VM00000230/A			10000	Forestry Trailer T800	
2	GROUP	BASIC				Basic	
3	PARAMETER	CARRYING_CAPACITY				Carrying capacity	How much stuff can be loaded on the trailer
4		12			1000	12 tons	Twelve tons
5		14			2000	14 tons	
6		16	X	HEAVY_LOAD	3000		Sixteen tons
7		18		HEAVY_LOAD	4000		
8		20		HEAVY_LOAD	5000		
9	PARAMETER	WIDTH	2350			Width	
10		2100 .. 2300			0		
11		2301 .. 2600			100		
12	PARAMETER	LENGTH	6500			Length	
13		6000 .. 7500					

Value list

Default value

Value descriptions

17100 EUR

Value list: fixed set of selections for parameter

- Note: if value has not description, value ID is used.
- Note: Boolean YES/NO works as value list

How to model product, prices and user interface?

	A	B	C	D	E	F	G
	TYPE	ID	DEFAULT	NAME	PRICE EUR	DESC en	INFO en
1							
2							
3	PRODUCT	VM00000230/A			10000	Forestry Trailer T800	
4							
5	GROUP	BASIC				Basic	
6							
7	PARAMETER	CARRYING_CAPACITY				Carrying capacity	How much stuff can be loaded on the trailer
8		12			1000	12 tons	Twelve tons
9		14			2000	14 tons	
10		16	X	HEAVY_LOAD	3000		Sixteen tons
11		18		HEAVY_LOAD	4000		
12		20		HEAVY_LOAD	5000		
13							
14	PARAMETER	WIDTH		2350		Width	
15		2100.. 2300					
16		2301.. 2600					
17							
18	PARAMETER	LENGTH		6500		Length	
19		6000.. 7500					
--							

Width*

(Value range 2100 to 2600)

[Confirm](#)

Length*

(Value range 6000 to 7500)

[Confirm](#)

17100 EUR

Status: Incomplete

Save

Cancel

- Range: enter value between limits
- Error occurs if limits are exceeded
- Range can be divided to multiple parts

Ranges can be separated e.g. for different pricing purposes.

How to model product, prices and user interface?

Real-time price calculation (Base price + sum of selected features)

Varicpo Forestry Trailer T800

Basic

Wheels etc.

Accessories

Carrying capacity ⓘ*

☐ 12 tons (1000 EUR) ⓘ

☐ 14 tons (2000 EUR)

☒ 16 (3000 EUR) ⓘ

☐ 18 (4000 EUR)

☐ 20 (5000 EUR)

Confirm

Width*

(Value range 2100 to 2600)

2350

Confirm

Length*

(Value range 6000 to 7500)

6500

17100 EUR

Status: Incomplete ⓘ

Save Cancel

TYPE	ID	DEFAULT	NAME	PRICE EUR	DESC en	INFO en
PRODUCT	VM00000230/A			10000	Forestry Trailer T800	
GROUP	BASIC				Basic	
PARAMETER	CARRYING_CAPACITY				Carrying capacity	How much stuff can be loaded on the trailer
	12			1000	12 tons	Twelve tons
	14			2000	14 tons	
	16	X	HEAVY_LOAD	3000		Sixteen tons
	18		HEAVY_LOAD	4000		
	20		HEAVY_LOAD	5000		
PARAMETER	WIDTH	2350			Width	
	2100..2300			0		
	2301..2600			100		
PARAMETER	LENGTH	6500			Length	
	6000..7500					
PARAMETER	STAKE_HEIGHT				Stake height	
	500..999					
	1000	X				
	1001..2000					
PARAMETER	GROUND_CLEARANCE	800			Ground clearance	
	700..1000					
GROUP	WHEELS				Wheels etc.	
PARAMETER	TYRES	X			Tyres	
	300/55-17		SMALL WIDE	100		
	400/60-15.5		BIG WIDE	200		
	600/45-17		BIG	300		
PARAMETER	BRAKES				Brakes	
	2-wheel			200		
	4-wheel		BRAKES_4	400		
PARAMETER	CRANE	X			Crane	
	NO			0	No	
	YES		CRANE	2500	Yes	
PARAMETER	FLAP_DOWN_STABILIZER	X			Flap down stabilizers	
	NO				No	
	YES		FLAPS	1000	Yes	
GROUP	ACCESSORIES				Accessories	
PARAMETER	COLOR	X			Color	
	red				Red	
	green				Green	
	blue				Blue	
PARAMETER	TOOLBOX	X			Toolbox	
	NO				No	
	YES		TOOLBOX	200	Yes	
PARAMETER	REAR_WORK_LIGHT	X			Rear work light	
	NO		NO_LIGHT		No	
	YES		LIGHT	100	Yes	

Price is summed based on **product** base price plus all selected **feature prices** (note: default values are used if selections are not made)

Variantum

Modeling rules (known as constraints) in Excel

Constraint: Requires. Gives condition when you can select a value

VaricPQ Forestry Trailer T800

Basic

Wheels etc.

Accessories

Tyres*

☐ 300/55-17 (100 EUR)

☒ 400/60-15.5 (200 EUR)

☐ 600/45-17 (300 EUR)

[Reset](#)

Brakes*

☐ 2-wheel (200 EUR)

☒ 4-wheel (400 EUR)

[Confirm](#)

Crane*

☐ No (0 EUR)

☒ Yes (2500 EUR)

[Reset](#)

Flap down stabilizers*

☐ No

☒ Yes (1000 EUR)

[Confirm](#)

17400 EUR Status: Ready Save Cancel

1	TYPE	ID	DEFAULT	NAME	PRICE EUR	DESC en	INFO en
29	GROUP	WHEELS					
30							
31	PARAMETER	TYRES					
32		300/55-17	X	SMALL WIDE			
33		400/60-15.5		BIG WIDE			
34		600/45-17		BIG			
35							
36	PARAMETER	BRAKES					
37		2-wheel					
38		4-wheel		BRAKES_4			
39							
40	PARAMETER	CRANE					
41		NO					
42		YES		CRANE			
43							
44	PARAMETER	FLAP_DOWN_STABILIZER					
45		NO					
46		YES		FLAPS			
47							
48	GROUP	ACCESSORIES					
49							
50	PARAMETER	COLOR					
51		red					
52		green					
53		blue					
54							
55	PARAMETER	TOOLBOX					
56		NO					
57		YES		TOOLBOX			
58							
59	PARAMETER	REAR_WORK_LIGHT					
60		NO		NO_LIGHT			
61		YES		LIGHT			
62							
63	REQUIRES						
64		HEAVY_LOAD					
65		BRAKES_4					4-wheel brakes required with a carrying capacity 10 tons or over.
66							
67	REQUIRES						
68		CRANE					Crane requires stabilizers
69		FLAPS					
70							
71	EXCLUDES						
72		TOOLBOX					Cannot have both the rear work light and toolbox.
73		LIGHT					
74							
75	EXCLUDES						
76		WIDE					Cannot have the rear work light with wide wheels.
77		LIGHT					
78							
79							
80	OR						
81		TOOLBOX					The toolbox, rear work light or crane must be selected.
82		LIGHT					
83		CRANE					
84							

Parameter value can have NAME which is used in constraints.

e.g. You can select CRANE only if you also select FLAPS

- VariCPQ selects FLAPS automatically when CRANE is selected if that is possible
- If not possible, conflict occurs

Modeling constraints in Excel

Constraint: Excludes. Two values can't be selected together

VARICPO Forestry Trailer T800

Basic

Wheels etc.

Accessories

Accessories

Color*

☐ Red

☒ Green

☐ Blue

[Reset](#)

Toolbox*

☒ No

☐ Yes (200 EUR)

[Reset](#)

Rear work light*

☒ No

☐ Yes (100 EUR)

[Confirm](#)

[Confirm selections above](#)

17200 EUR

Status: Ready

Save Cancel

1	A	B	C	D	E	F
	TYPE	ID	DEFAULT	NAME	PRICE EUR	DE
31	PARAMETER	TYRES				Tyr
32		300/55-17	X	SMALL WIDE	100	
33		400/60-15.5		BIG, WIDE	200	
34		600/45-17		BIG	300	
35	PARAMETER	BRAKES				Bra
36		2-wheel			200	
37		4-wheel		BRAKES_4	400	
38						
39	PARAMETER	CRANE				Cra
40		NO			0 No	
41		YES		CRANE	2500 Yes	
42						
43	PARAMETER	FLAP_DOWN_STABILIZER				Flap down stabilizers
44		NO			No	
45		YES		FLAPS	1000 Yes	
46						
47	GROUP	ACCESSORIES				Ac
48						
49	PARAMETER	COLOR				Col
50		red			Red	
51		green			Gre	
52		blue			Blu	
53						
54	PARAMETER	TOOLBOX				Too
55		NO			No	
56		YES		TOOLBOX	200 Yes	
57						
58	PARAMETER	REAR_WORK_LIGHT				Re
59		NO		NO LIGHT	No	
60		YES		LIGHT	100 Yes	
61						
62	REQUIRES	HEAVY_LOAD				4-w
63		BRAKES_4				
64						
65	REQUIRES	CRANE				Cra
66		FLAPS				
67						
68	EXCLUDES	TOOLBOX				Car
69		LIGHT				
70						
71	EXCLUDES	WIDE				Car
72		LIGHT				
73						
74	OR	TOOLBOX				The
75		LIGHT				
76		CRANE				
77						
78						
79						
80						
81						
82						
83						
84						

Note: Value can have many NAMES to help constrain creation. e.g. Tyre 400/60-15.5 has BIG, WIDE

Exclude TOOLBOX and LIGHT=> both can't be selected

Exclude WIDE and LIGHT=> both can't be selected

This means, that LIGHT selection depends on both TOOLBOX and WIDE (Tyre 400/60-15.5)

Modeling constraints in Excel

Constraint: Or. This forces to select at least one.

varicpo

Forestry Trailer T800

Basic

Wheels etc.

Accessories

Accessories

Color*

☐ Red

☒ Green

☐ Blue

Reset

Toolbox*

☒ No

☐ Yes (200 EUR)

Reset

Rear work light*

☒ No

☐ Yes (100 EUR)

Confirm

Confirm selections above

17200 EUR

Status: Ready

Save

Cancel

TYPE	ID	DEFAULT	NAME	PRICE EUR	DESC en	INFO en
PARAMETER	TYRES				Tyres	
	300/55-17	X	SMALL, WIDE	100		
	400/60-15.5		BIG, WIDE	200		
	600/45-17		BIG	300		
PARAMETER	BRAKES				Brakes	
	2-wheel			200		
	4-wheel		BRAKES_4	400		
PARAMETER	CRANE				Crane	
	NO			0	No	
	YES		CRANE	2500	Yes	
PARAMETER	FLAP_DOWN_STABILIZER				Flap down stabilizers	
	NO				No	
	YES		FLAPS	1000	Yes	
GROUP	ACCESSORIES				Accessories	
PARAMETER	COLOR				Color	
	red				Red	
	green				Green	
	blue				Blue	
PARAMETER	TOOLBOX				Toolbox	
	NO				No	
	YES		TOOLBOX	200	Yes	
PARAMETER	REAR_WORK_LIGHT				Rear work light	
	NO				No	
	YES		NO LIGHT LIGHT	100	Yes	
REQUIRES	HEAVY_LOAD				4-wheel brakes required	
	BRAKES_4					
REQUIRES	CRANE				Crane requires stabilizers	
	FLAPS					
EXCLUDES	TOOLBOX				Cannot have both the rear	
	LIGHT					
EXCLUDES	WIDE				Cannot have the rear work	
	LIGHT					
OR	TOOLBOX LIGHT CRANE				The toolbox, rear work light or crane must be selected.	

OR: one of these values must be selected.

e.g. TOOLBOX, LIGHT or CRANE must be selected.

VariCPQ standard functionality in conflicts

The screenshot displays the VariCPQ interface for a 'Forestry Trailer T800'. The sidebar on the left shows the 'Accessories' tab selected. The main configuration area shows options for 'Color*' (Green selected), 'Toolbox*' (Yes selected), and 'Rear work light*' (Yes selected). A 'Conflicts' dialog box is open, showing two conflict messages: 'Cannot have both the rear work light and toolbox.' and 'Cannot have the rear work light with wide wheels.' The 'Status' bar at the bottom indicates 'Conflicts' and '17500 EUR'.

Below the main interface, a smaller screenshot shows the 'variantum' interface for the same 'Forestry Trailer T800'. The 'Accessories' tab is selected, and the 'Rear work light*' option is highlighted. The 'Status' bar at the bottom indicates 'Ready' and '17400 EUR'.

- Resolving conflicts
- If conflict status is turned to conflict:
 - Conflict sign is shown all groups where conflict is appearing
 - Conflict window opens with shows options that are in conflict
 - Change parameter value on the parameter form, or reset the value by clicking X in Conflicts window.

What if I need more advanced features?

- What if I need more advanced features for my product model, pricing calculation or 2D/3D visualization?
- What if I would like to combine sales model and production model?
- What if I need a CPQ supportive PDM system?
- What if I want to see my products after delivery in installed base for service business purposes?
- What if I need off-line functionality in Sales configuration?

Please contact sales@variantum.com

Thank you!

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Solution
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Analysis
Ideas
Success
Management



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