

# Useful phrases and statements

# Questions

11-19-2013, 04:45 PM #7

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Configurable Assemblies and family tables are not really doing the same thing. It's like an option bill of materials vs. a standard bill of materials. With a family table you are defining a single variant or part number, for example. With the configurable assemblies, you can have a single part number with a number of options. This can produce the bill of materials and drawings required to produce that particular variant. With a family table you would have to have every possible variant of the top level assembly, subassemblies, and parts defined as well as manage it all.

The other option for configurable assemblies is that if you have Windchill, people (clients, sales people, engineers, etc.) can configure various options from the Windchill interface and produce a viewable to evaluate or to help sell the product. It can be connected to a web portal for customers to configure themselves and view their personally configured product. It can produce a BOM and if integrated with your MRP system generate the appropriate bills and workorders to produce the part.

The main reason for it is on the fly configuration for what can be a virtually infinite number of configurations.

Sep 2, 2014 6:37 PM (in risposta a Tom Uminn)

**Re: Managing Variation (Windchill, Creo, and ERP System)**

The Creo side is the called "Option Modeler"

Here's a video (sorry in french)  
Creo Options Modeler : <https://www.youtube.com/watch?v=sFTMH0EMXCc>

but you should find something on PTC web site

The Windchill Side is called "Option and Variants", . Search for Configurable Parts, ATO, CTO , but not necessary well documented .... except may be online help.

Basicaly with Creo "standalone", you can build overloaded 150% CAD structure. and be able to display needed modules by "just enable them" without particluar logic. You can also generate an assembly instance of a particular Configuration (a kind of save as , with no relation to the original overloaded ASM. So no easy modification like a family table)

Windchill O&V give you ability to define advanced logic on Options. And this logic, apply to the WTPart BOM , is able to drive the associated CAD structure  
You can also persist and manage "Variant Spec", which is the Option list used to filtered out the Product Structure of a particular instance (for example a purchased Variation for a particular client)

Segnala abuso Preferenza (0) Rispondi

In terms of practice, the use of Family-Table or "Option and Variants" looks very similar, but in this case I would like to post my plant situation.  
As you can see below, I show a Typical example of A-Sample development, in which we are use to create variants (-001: -002: ecc ecc) of the "Original Part Number", we also deeded the same for some sub-Assy involved in this assy.  
My questio as follow :

1. I can use dash of the same Part.N°, (In case of Family table) but are bound by the use and manage complex task, ie. Managing -Simp Reps- and design table, in this case, I will have also in the "catia" than in "pro-e" a very complex master rep, but: one Cad-3D one Cad Drawing with some generic and some specific view.
2. But, in all scenario (No very Complex assembly as 30/50 parts), I see the variant managementi, more related in the early stages of prototyping, where we need to produce a lot of variation of similar assemblies.

From this point of view I see more practice for example:

Create file-named (Parts or Assy) like 4XXXXXXX.000; -001, Manually Same if are parts or assembly,  
Create all the needed "3D-Cad" and **single** reference "2D-Cad", create all needed "assembly variants" manually from a 3D-CAD Autoring Application (In Creo-2 is clear how, in CATIA I have no clear how).  
Later "when needed" load document in "WINDCHILL" **only a DIR for each Document with different Versions of the DIR.**(no D-Matnr assigned at the moment) (**Note: Not all iterations are released to SAP.**).  
At the end, only needed Part-Numbers, (of Assy or parts) can be relased to SAP and linked to an A2Cxxxx number (Wtparts), and it's single drawing.

The main question is, can I link different A2Cxxxx (SAP/Wtparts) to the same single drawing ?

Linking One reference documents to multiple wtparts, and for reference documents In this case I speaking of "drawing" that normaly in "Windchill" are linked automaticlay to parts, but I suppose that this depends from some "Windchill" parameters.  
In this way we should have more operational freedom, and we should do not need the family tables for assembly that I see as very coplicated. ??????

## FAMILY TABLE / WINDCHILL "Option and Variants" SCENARIO

ex:

MATERIAL (P1m-ID.)	PART N°	SUB ITEMS												
		05			10			15			20			
		Needle UAR Assy			Free Lift Spring			Armature			Hydro disc			
		MATERIAL (P1m-ID.)	PART N°	DRW	MATERIAL (P1m-ID.)	PART N°	DRW	MATERIAL (P1m-ID.)	PART N°	DRW	MATERIAL (P1m-ID.)	PART N°	DRW	
A2C87662000	40xxxxxxx-000	....	40xxxxxxx-000	40xxxxxy	....	40xxxxx-001	40xxxxx	....	40xxxxFM-000	40xxxxFM	....	40XXXTR-000	40XXXTR	
A2C37959700	40xxxxxxx-001	....	40xxxxxxx-001		....			....			....	....	40XXXTR-000	40XXXTR
A2C81922800	40xxxxxxx-002	....	40xxxxxxx-001		....			....			....	....	40XXXTR-001	40XXXTR
A2C30572500	40xxxxxxx-003	....	40xxxxxxx-001		....			....			....	....	40XXXTR-002	40XXXTR
A2C87523100	40xxxxxxx-004	....	40xxxxxxx-001		....			....			....	....	40XXXHJ-000	40XXXHJ
A2C32441800	40xxxxxxx-005	....	40xxxxxxx-000		....			....			....	....	40XXXHJ-000	

Sap (D-Matnr) Numbers.  
In our scenario will be directly linked/Or equal to WTPART.