Autodesk® PLM360 Defusing the BOM

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Your Instructors

Ian Hadden

Solution Architect – PLM, Autodesk

- 10 years experience in working with PLM products
- Engaged in many customer deployments in a wide variety of industries
- 2nd Time at AU

Brian Schanen

PLM Technical Marketing Manager, Autodesk

- 10 years of PDM/PLM experience
- AU veteran speaker
- Builds PLM collateral
- Author, Blogger, Implementer

Autodesk® PLM 360: Defusing the BOM

Code PL1898

Navigate the minefield of data management and come out the other side intact. This class covers using the bill of materials (BOM) within Autodesk PLM 360 software, and demonstrates the new capabilities of effectivity, pinning, and revision control of BOM lines.

Learning Objectives

At the end of this class, you will be able to:

- Create product structures.
- Define relationships
- Describe new features for working with BOMs
- Use Autodesk PLM 360 to its fullest

Class Agenda

- What is a BOM
- Different Types of BOM
- How to Create a BOM
- Releasing the BOM (Effectivity)
- Revision Pinning

What is a BOM?

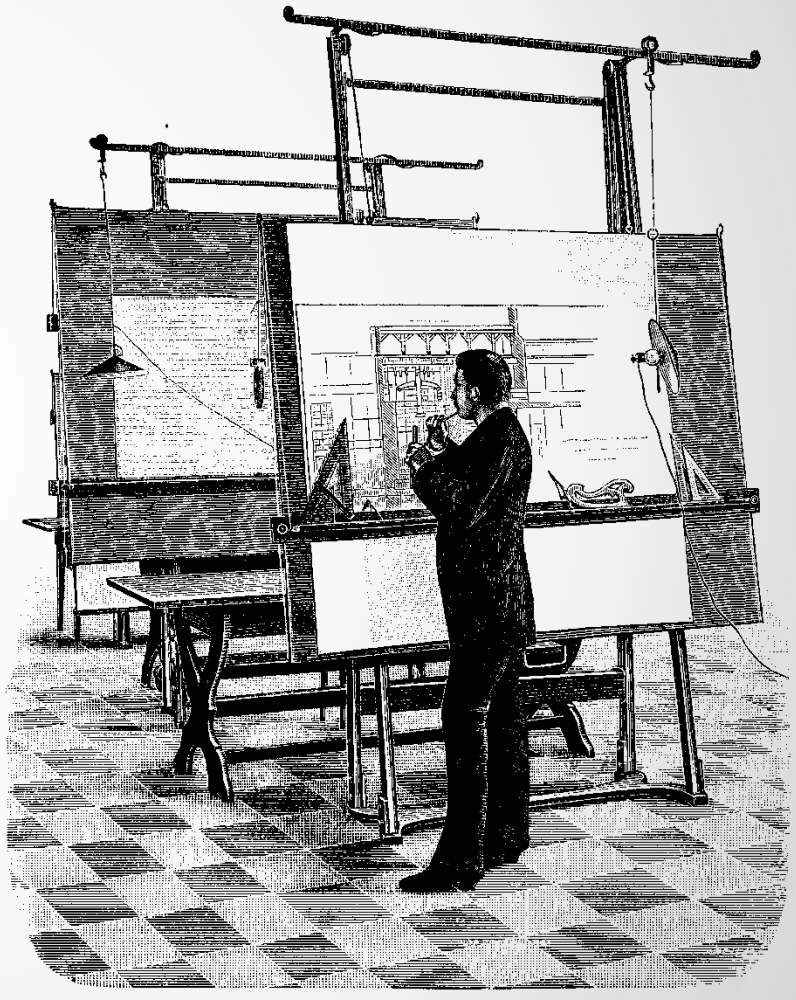
What is a BOM?

Wikipedia Says:

- A Bill of Materials (BOM) is a list of the raw materials, sub-assemblies, intermediate assemblies, sub-components, parts and the quantities of each needed to manufacture an end product.

What is a BOM?

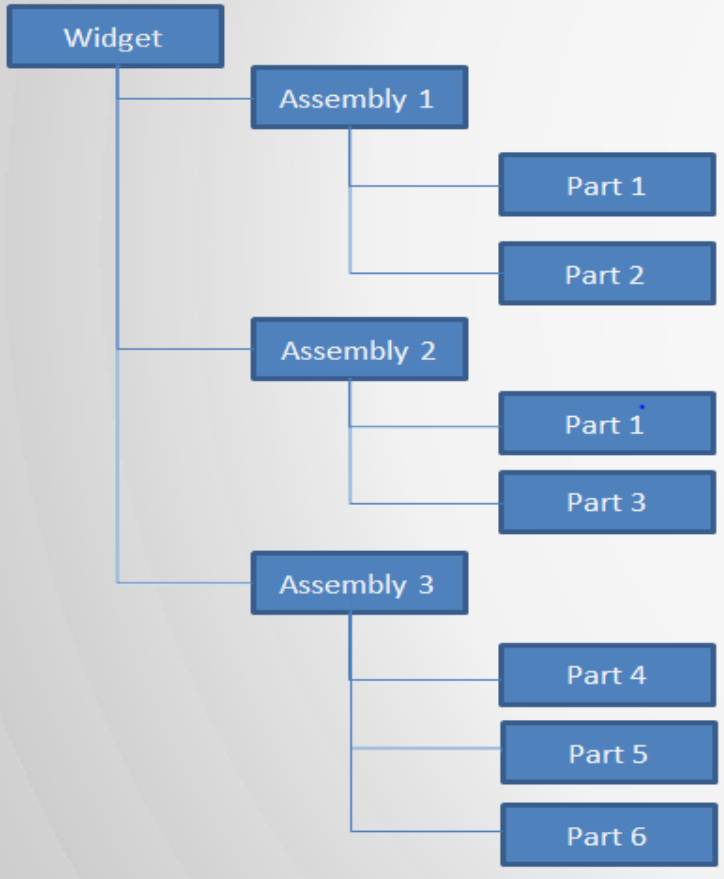
- Not so Long ago a BOM was a box on an assembly drawing listing out the Parts.



What is a BOM?

Today its not so Different. It's still a List of Parts

Structured BOM



Flat BOM

Part Number	Quantity
Part 1	2
Part 2	1
Part 3	1
Part 4	1
Part 5	1
Part 6	1

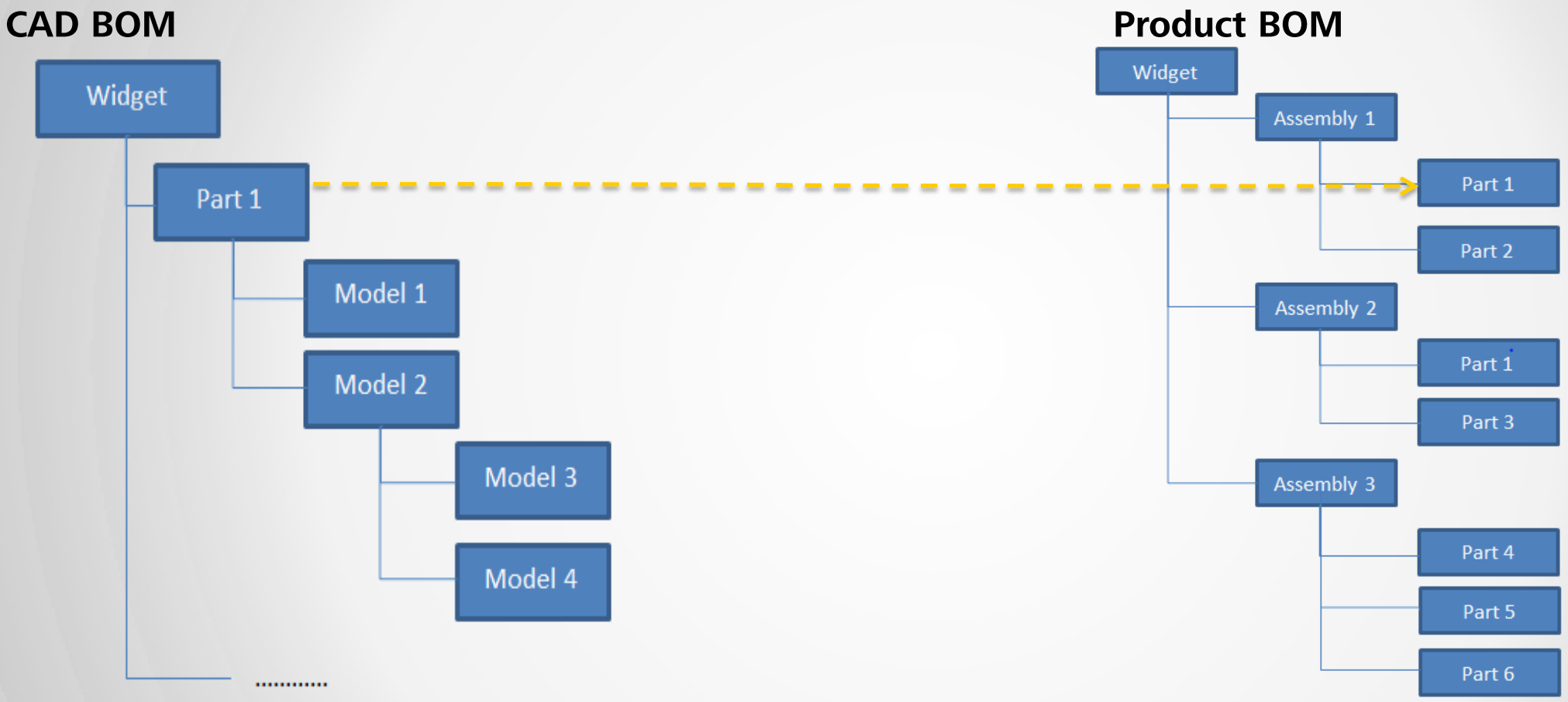
Does the BOM still belong on the Drawing?

"This is how we have always done it."

Where does the BOM belong?

- There are many different types of BOMs
- They serve different purposes
- They are consumed by different people or systems

Different Types of BOM



BOM Ownership and Deliverables

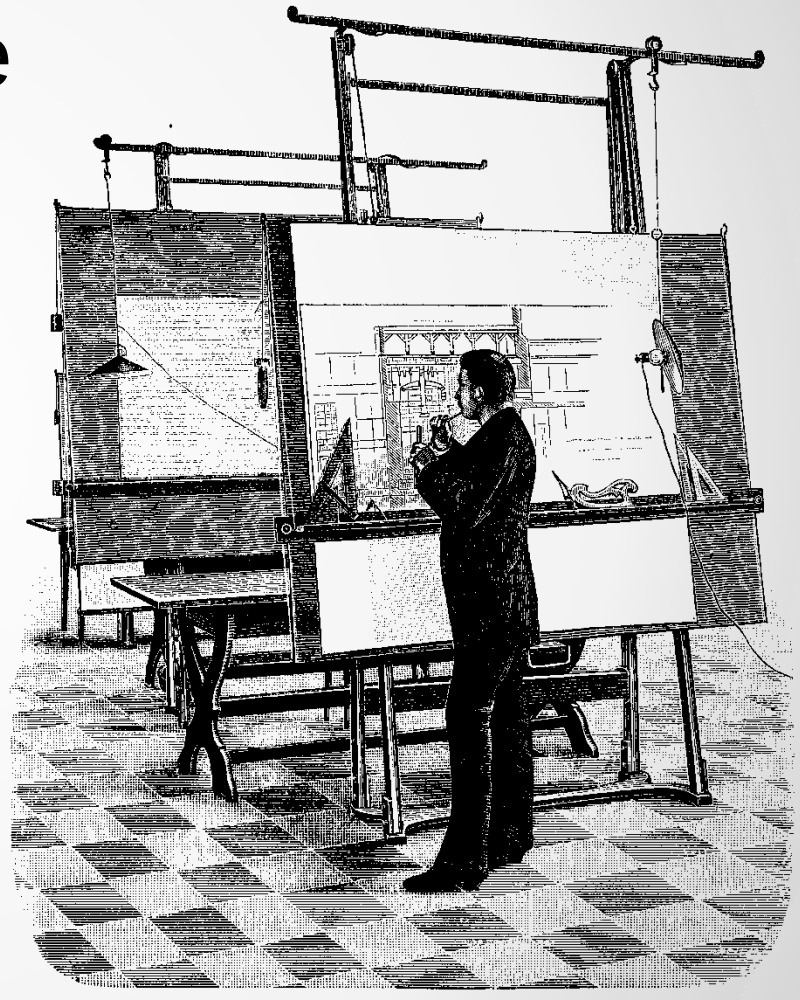
- Before we can determine where a BOM belongs we need to decide who the BOM is for and what is the information that they need.
- We need to start thinking about deliverables

BOM Ownership and Deliverables

In our Friends day the deliverable was simple.

- A drawing or Set of Drawings with all the dimensions and notes required to manufacture the Part.

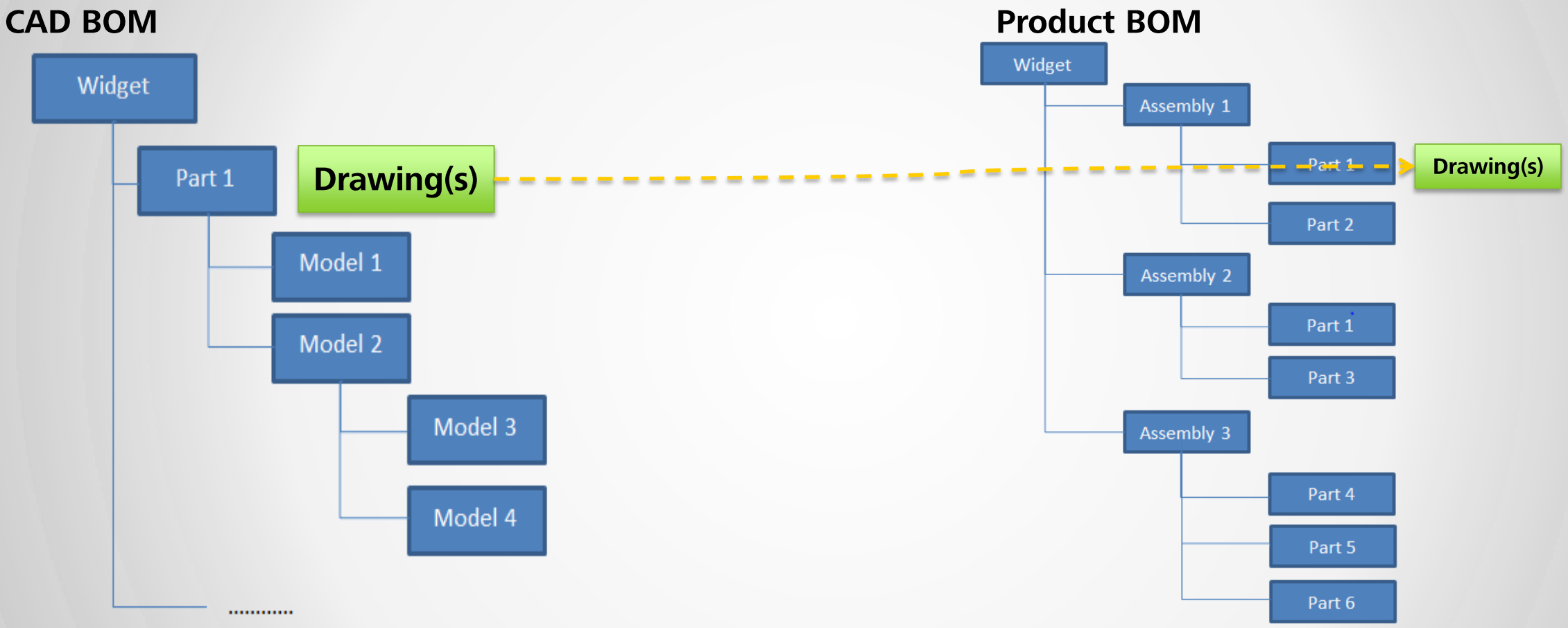
Is this still the case today?



BOM Ownership and Deliverables

- Are we moving in this room?
  - It depends on where you are looking from.
- It's the same with a BOM
  - The right BOM depends on who you are and what you do.
- Now we understand we need different BOMs we just need to agree what to deliver between them.
  - What does the consumer of the information need
  - What format do they want it in
  - Who owns the information

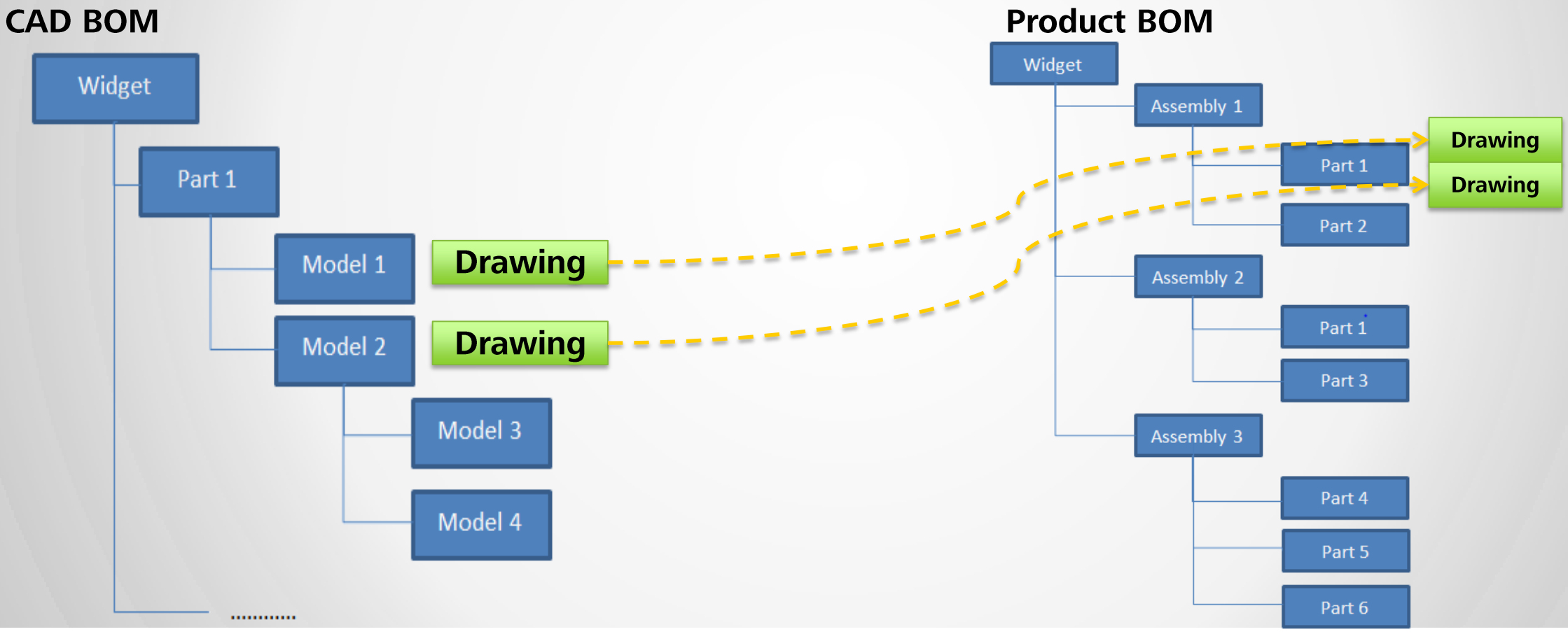
BOM Ownership and Deliverables



Benefits of Separation

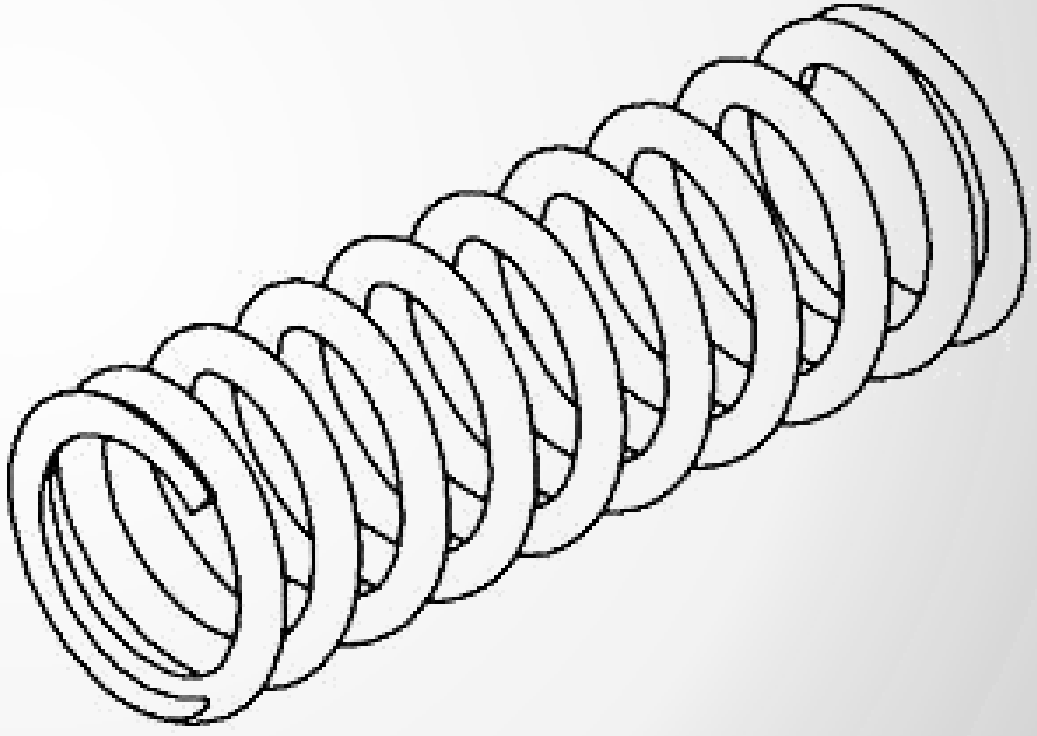
Benefits of Separation

Multiple Representation of the same part



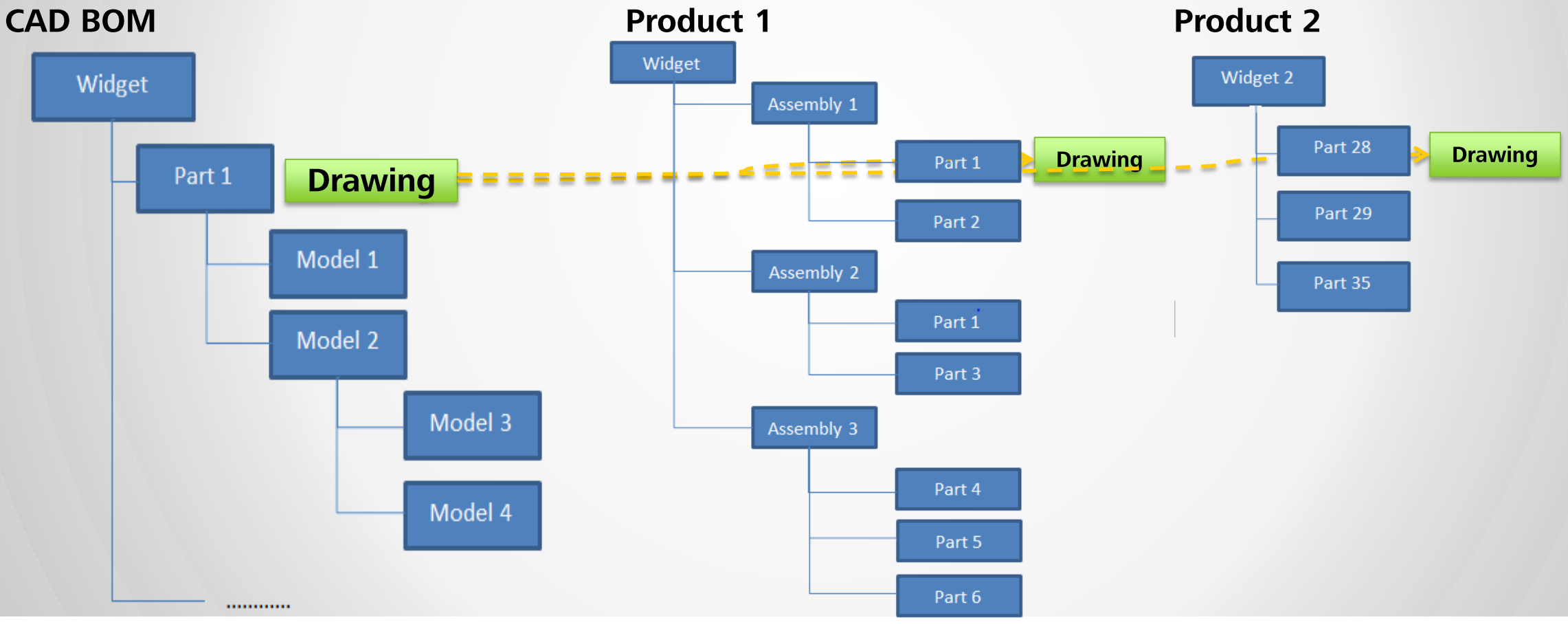
Example - Spring

- The same spring could be used in multiple Applications
  - Different Pre-load compression
  - Different length



Benefits of Separation

Ability to have a single design as representation for multiple parts

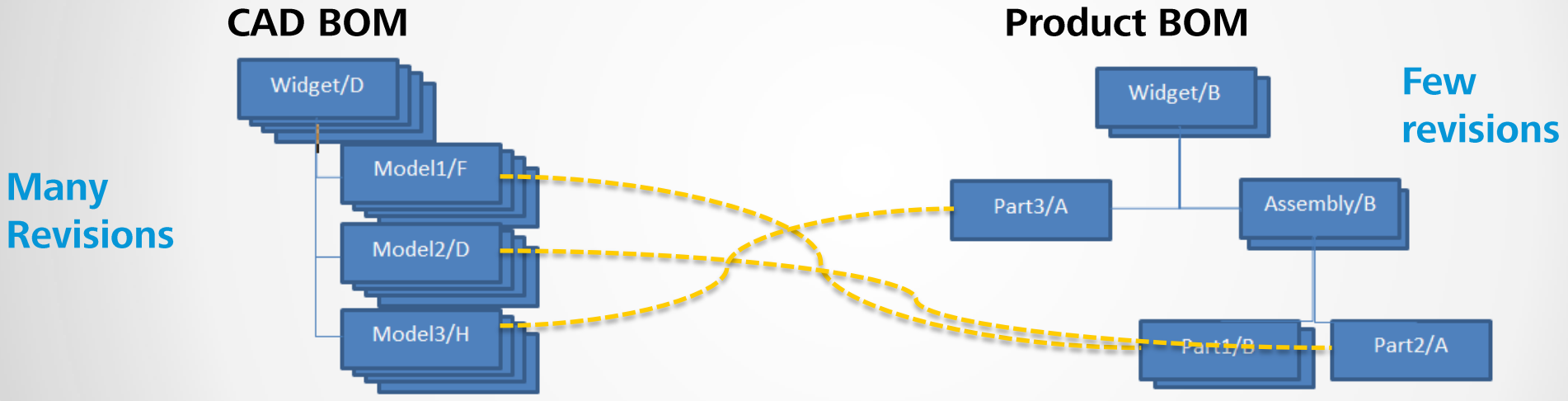


Example - Pens

- The same geometry but in different material (colors)
- Each cap could have a different Part number but be represented by the same Drawing.

Benefits of Separation

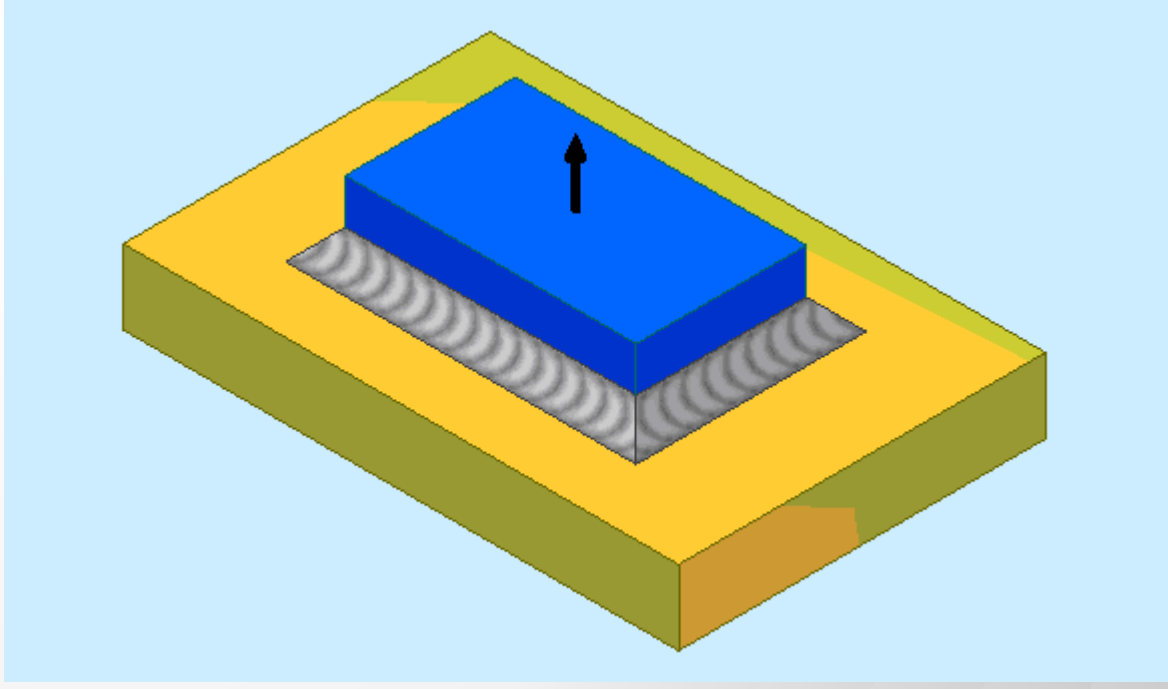
Revision Independence
Parts and CAD designs can be revised at different paces



Example – Change to Manufacturing Process

- The Assembly has not changed but the process did.

- The CAD model doesn't need to be revised but the product does.



Building a BOM

Top Down vs. Bottom Up

There has been a lot of discussion about Top Down vs Bottom up when building a BOM.

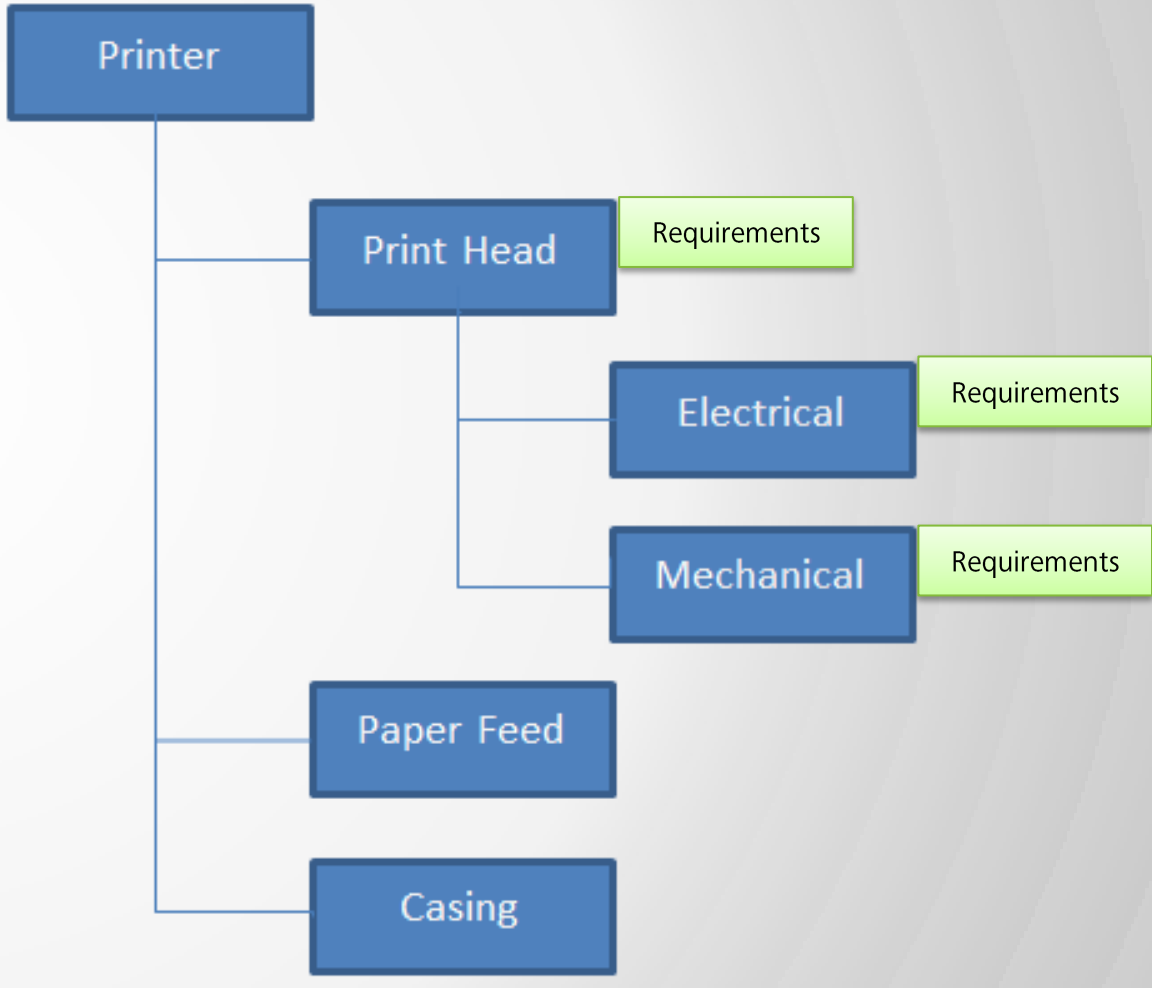
- A **top-down** approach (also known as stepwise design and in some cases used as a synonym of *decomposition*) is essentially the breaking down of a system to gain insight into its compositional sub-systems - Wikipedia

- A **bottom-up** approach is the piecing together of systems to give rise to more complex systems, thus making the original systems sub-systems of the emergent system - Wikipedia

Building a BOM from the Top

I want to design a new printer.
I will need:

- Print head
- Paper Feed
- Casing
- …..



Building a BOM from the Bottom

I want to design a new Table.

- First I will design the legs
- Then the cross members
- Then the top

Meeting in the Middle

In many cases we can start at Both ends.

- System Engineering Building from the top down
- Engineering and design team working from the bottom up.

Both Groups meeting in the Middle.

Building a BOM in PLM 360
Live Demo

Questions

Please Fill Out Your Surveys

Make sure your voice is heard by completing your surveys!

Please take the time to complete your survey for this and every class you attend at Autodesk University.

Autodesk uses this information to know what classes to offer in the future.

Join The Discussion!

- Autodesk customers and industry partners ask questions and share information about Autodesk products.
- Regularly monitored by Autodesk employees
- PLM 360 discussion forum
  - http://forums.autodesk.com/t5/PLM-360-General/bd-p/705

Resources – Under the Hood

- Autodesk Vault and Autodesk PLM 360
- Allan O'Leary, Brian Schanen and Michelle Stone
- Great source of tips and tricks for Vault and PLM 360
- http://underthehood-autodesk.typepad.com/blog/

Your Instructors Schedule

Ian Hadden

Solution Architect – PLM, Autodesk

Time	Event
Tuesday 1:15 pm	Autodesk® PLM 360: Making Workflow Work for You
Wednesday 1:00 pm	Autodesk® PLM 360 Implementation: How to Take Advantage of the Platform for Deployment and Process Optimization
Wednesday 2:00 pm	One Small Step for Man, One Giant Leap for Autodesk® PLM 360 Implementation: Sprint to the Finish
Wednesday 4:00 pm	Autodesk® PLM 360: Defusing the BOM

Brian Schanen

PLM Technical Marketing Manager, Autodesk

Time	Event
Tuesday 1:15 pm	Autodesk® PLM 360: Making Workflow Work for You
Wednesday 4:00 pm	Autodesk® PLM 360: Defusing the BOM
Thursday 10:00 am	Changing It Up with Autodesk® PLM 360