AS13357 A Global Large Data epidemic - How industry is working with federal influencers to resolve the issue

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Class summary

Production time = Money. So how can we speed up production time? Whether you are a large design house or a one person show, we all suffer when dealing with large models, but why do we put up with it? We have multiple sources of families and families gather data, they pick up ‘data dust’ and grow and grow and then they live in our models increasing the size of our project files, what we need is a medic!

Or Autodesk SEEK’s new solution – family quality control. But it goes beyond that, this session tackles large data, sourcing families and family standards for in house use. We look at how we are addressing this from a global perspective, implementing standards and working towards achieving a national standard.

Key learning objectives

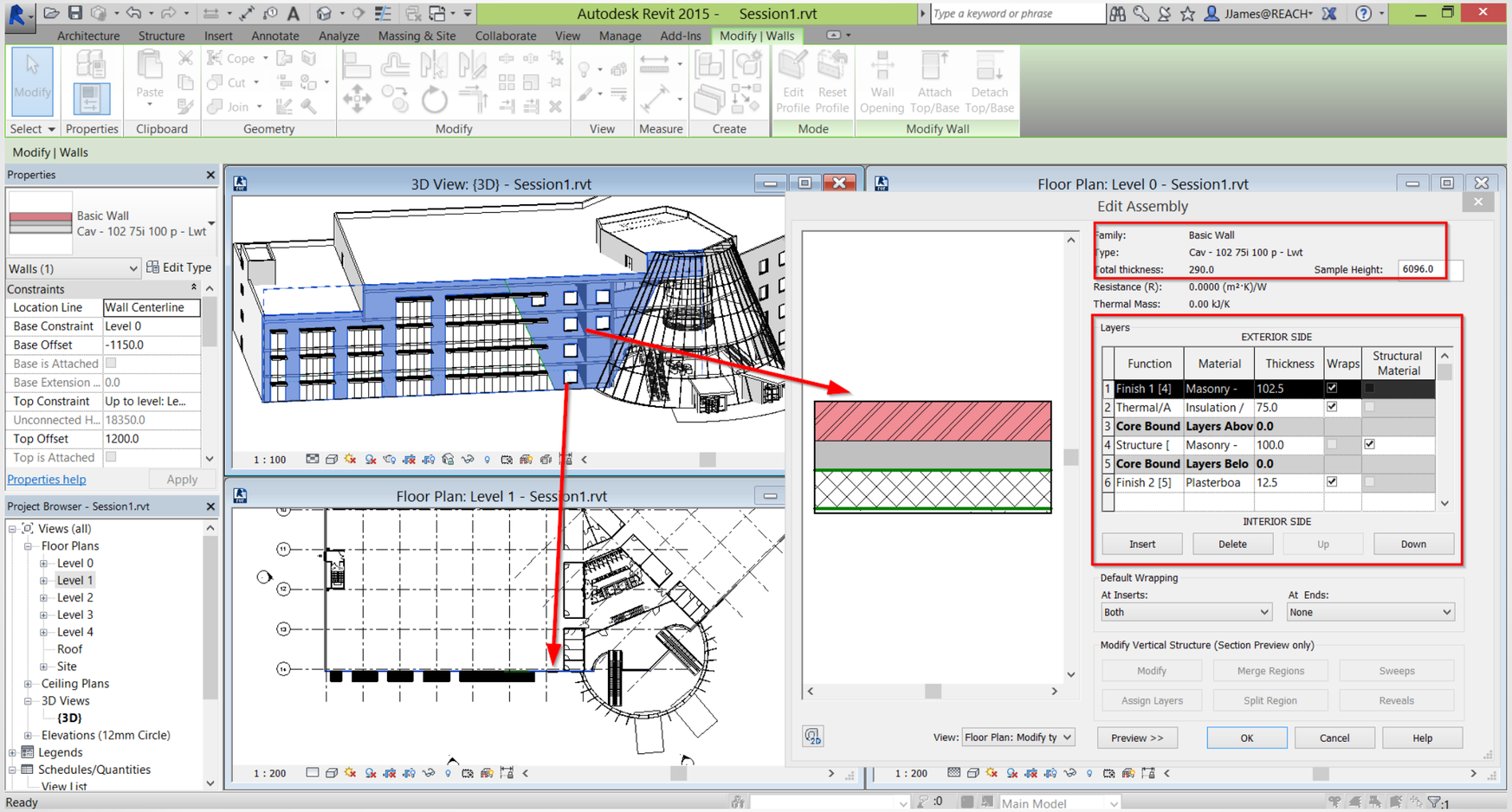
At the end of this class, you will be able to:

1. **Appreciate the importance of ‘family’ data**
2. **Manage data throughout the lifecycle of their project models**
3. **View data from a 50,000 ft. approach and address this from the ground up.**
4. **Maximize production time – buys you more BIM budget**

Who do we have in the room?



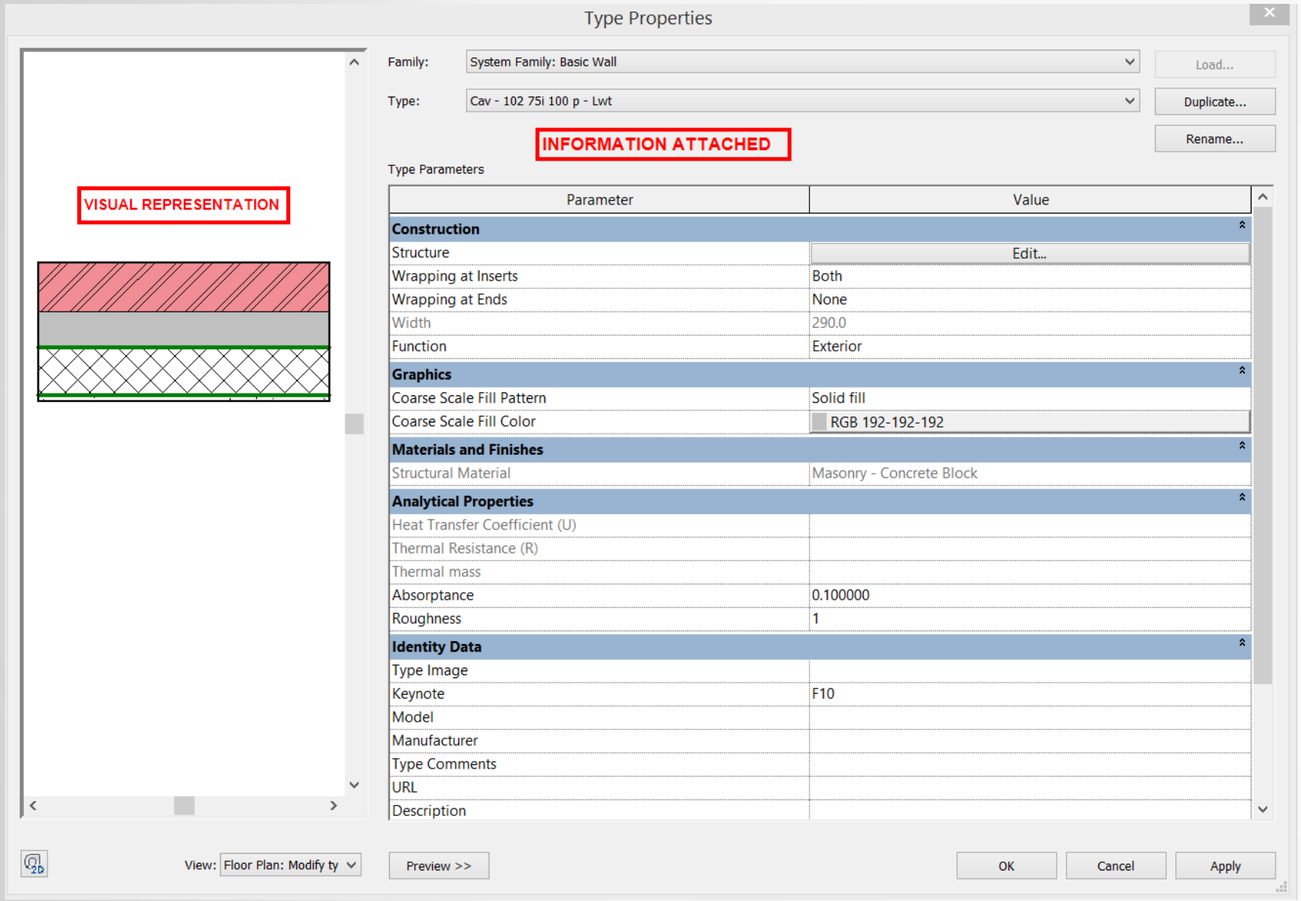
Families in Models:

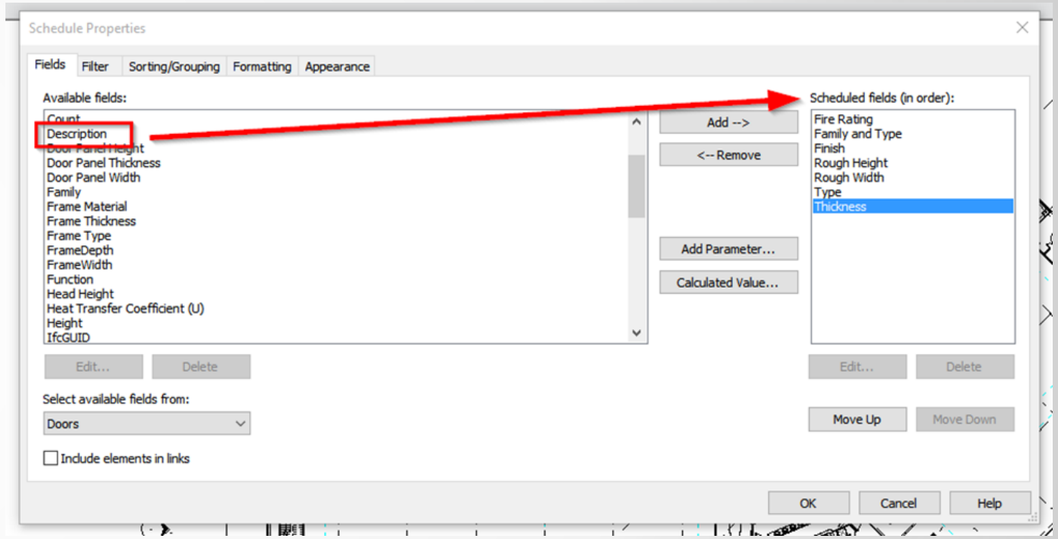


What does a Family look like?

= DATA!

The NON techy explanation!…

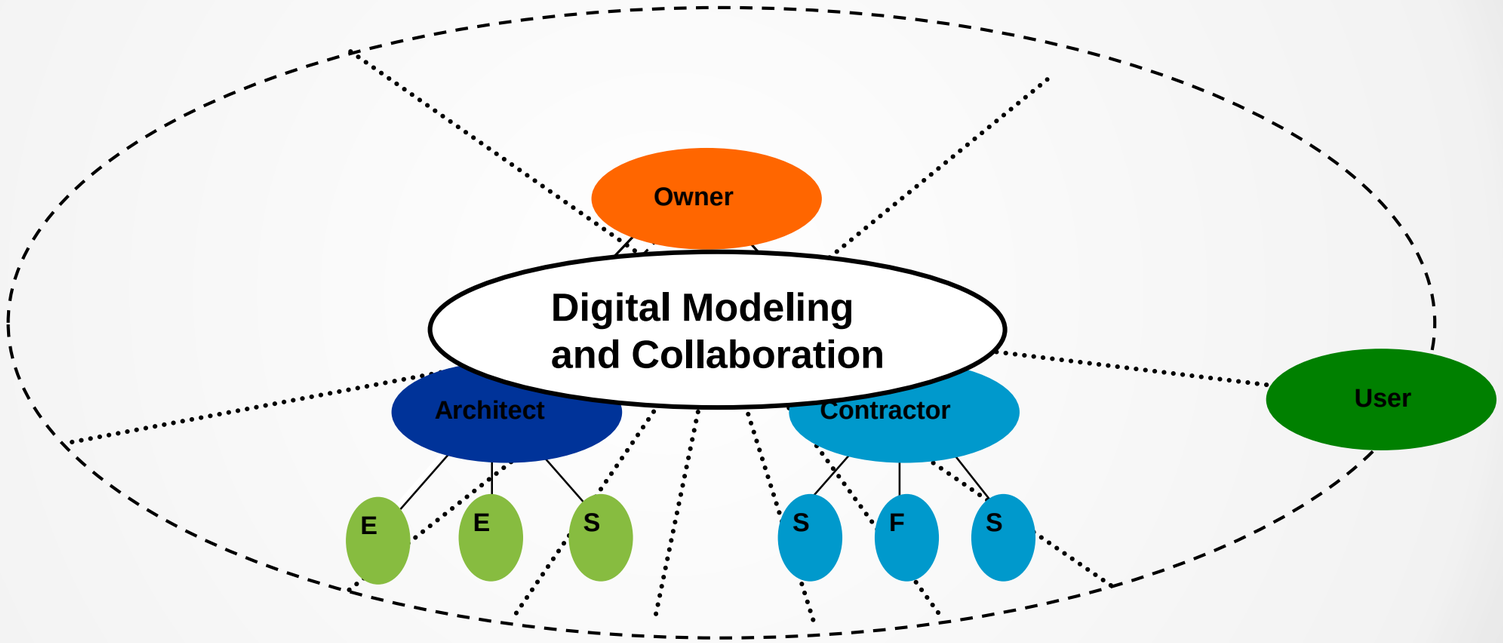




If the model is indeed an information model, then where does all this data come from? It is mainly embedded in the families!

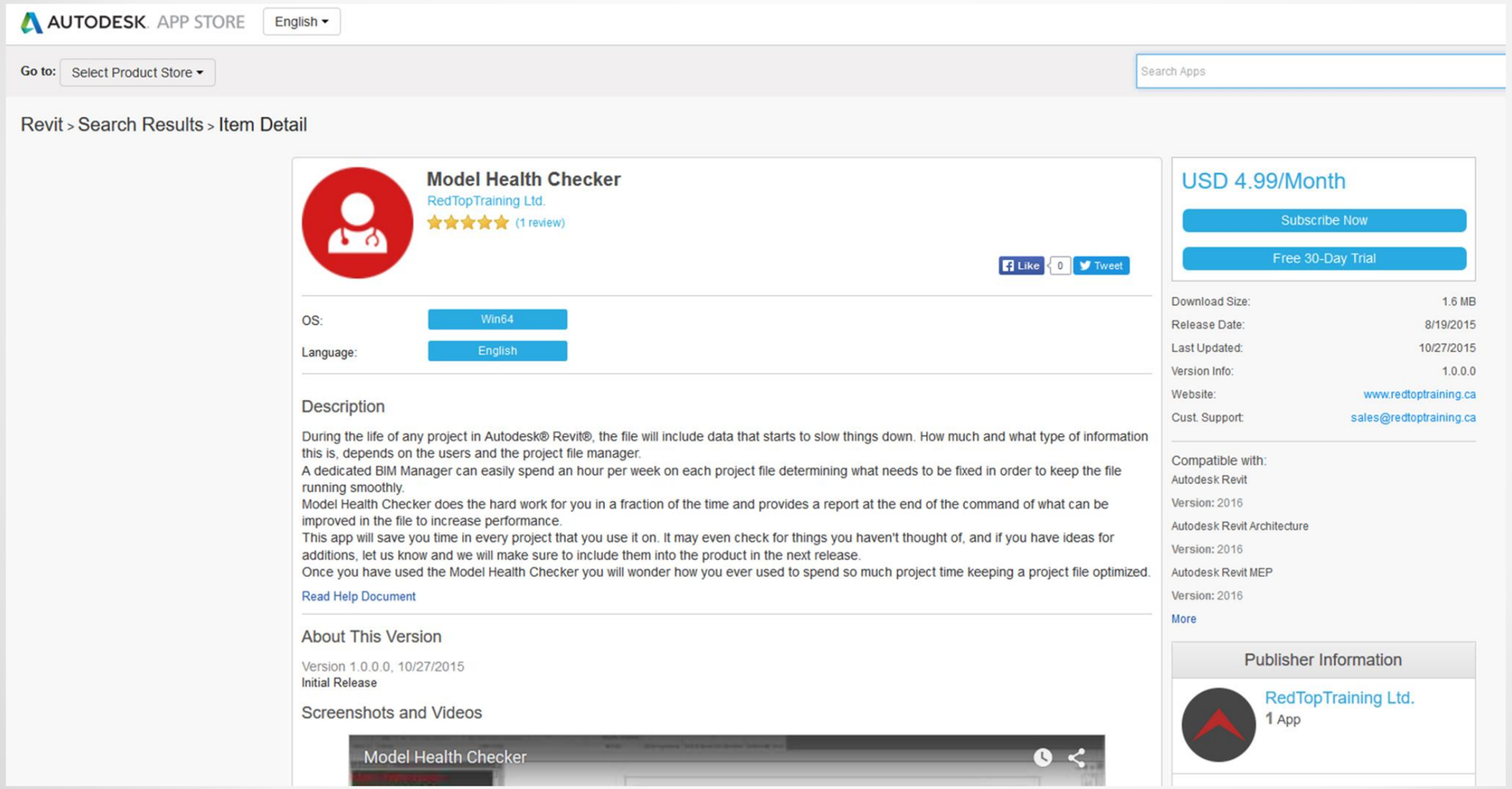
Process – How we utilize a model

Evolution of Project Delivery & Management



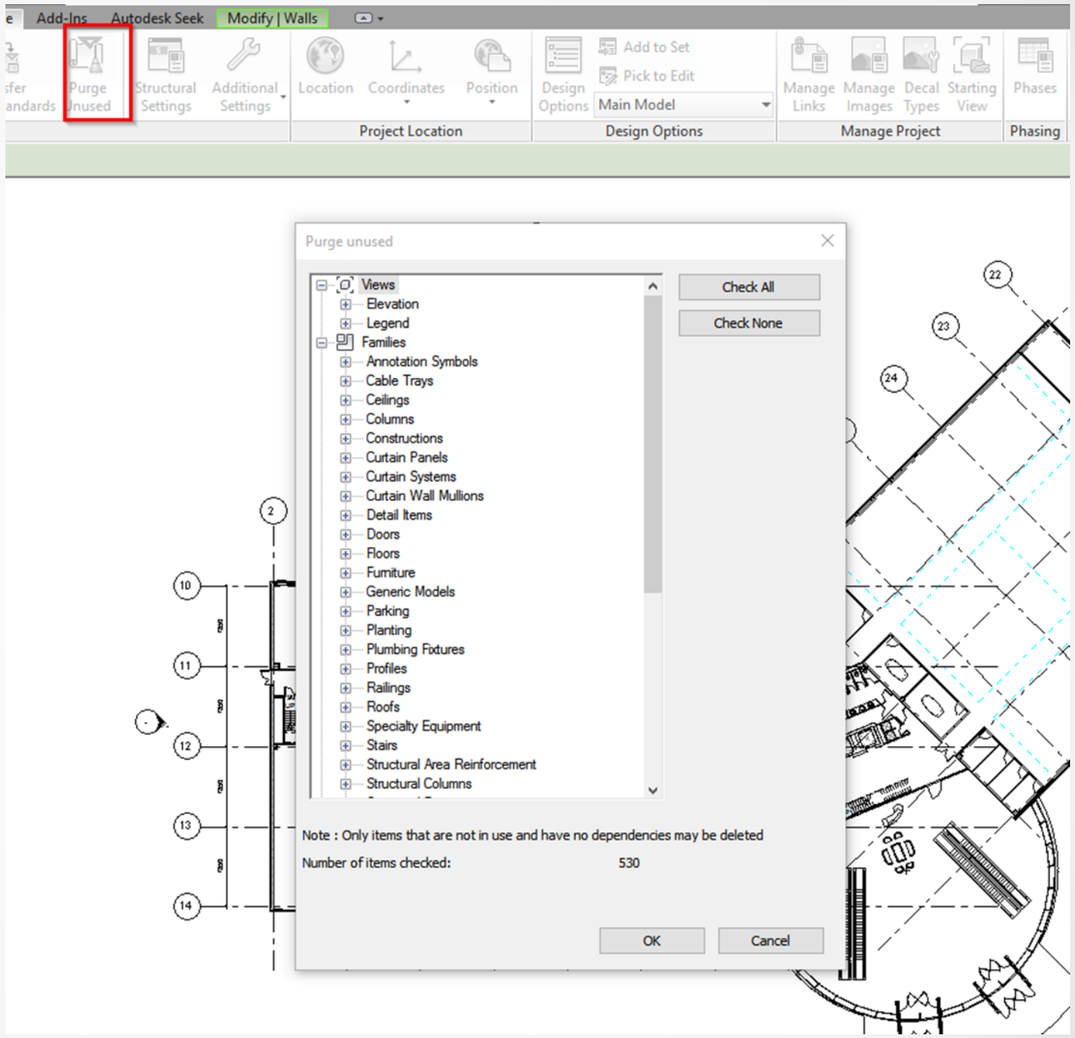
Objective 2 & 3…

- **Check it's size! – We have an app for that!**



Objective 2 & 3…

- **Purge Unused**

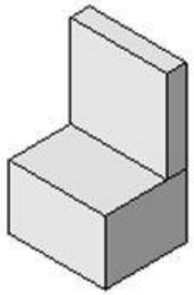


Objective 2 & 3…

- **Don’t use groups unless you have to! Creating detailed components & families is better**
- **Check its Parameters**
- **Eliminate or reduce warnings (reviewing the warnings can eliminate duplicate instances, overlapping items like walls and room separation lines). The overlapping room separations seems to be a big issue. Area boundary lines too.**
- **After you create a family, before loading it into the project, it should be loaded into a blank project and saved out from there. This eliminates the entire history of the family. (I didn't believe it at the beginning, but I tried it. We had some large families in one of the models, about 20 MB. After loading them into a blank project and saving them from there, the size got reduced to half!) You should also purge unused before loading the family in the blank project.**
- **Audit and Compact the model (on a weekly basis, let's say) This also reduces its size by a lot!**
- **Close all hidden Windows**

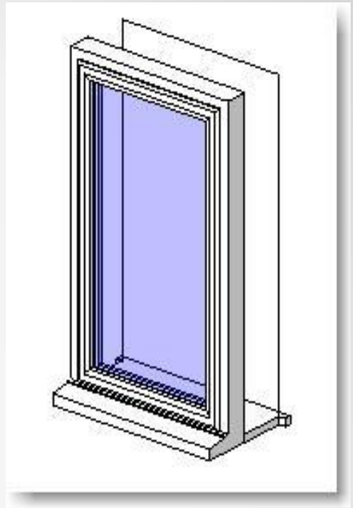
L O D...

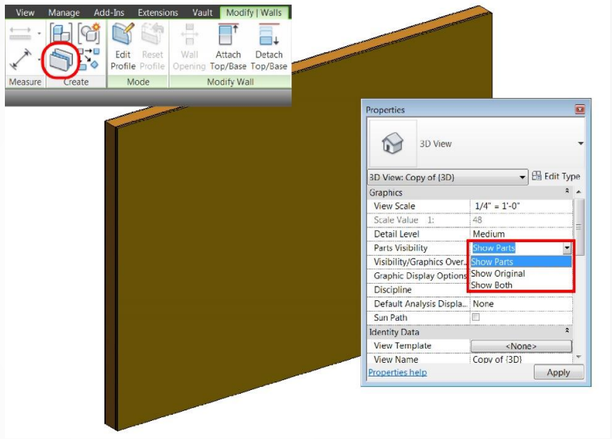
LEVEL of DETAIL

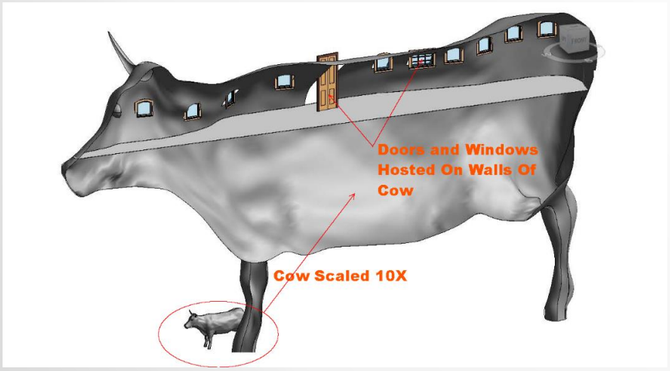
G0	G1	G2	G3
			
Schematic	Concept	Defined	Rendered
Description: Office Chair	**Description:** Office Chair	**Description:** Office Chair Arms, Wheels	**Description:** Office Chair Arms, Wheels
Width: -	**Width:** 700	**Width:** 700	**Width:** 700
Depth: -	**Depth:** 450	**Depth:** 450	**Depth:** 450
Height: -	**Height:** 1100	**Height:** 1100	**Height:** 1100
Manufacturer: -	**Manufacturer:** -	**Manufacturer:** Herman Millar Inc.	**Manufacturer:** Herman Millar Inc.
Model: -	**Model:** -	**Model:** Milla	**Model:** Milla

3 types of family in Revit

- Component family
- System family
- In place family







Build families with the end in mind…

Where do all these decisions live?

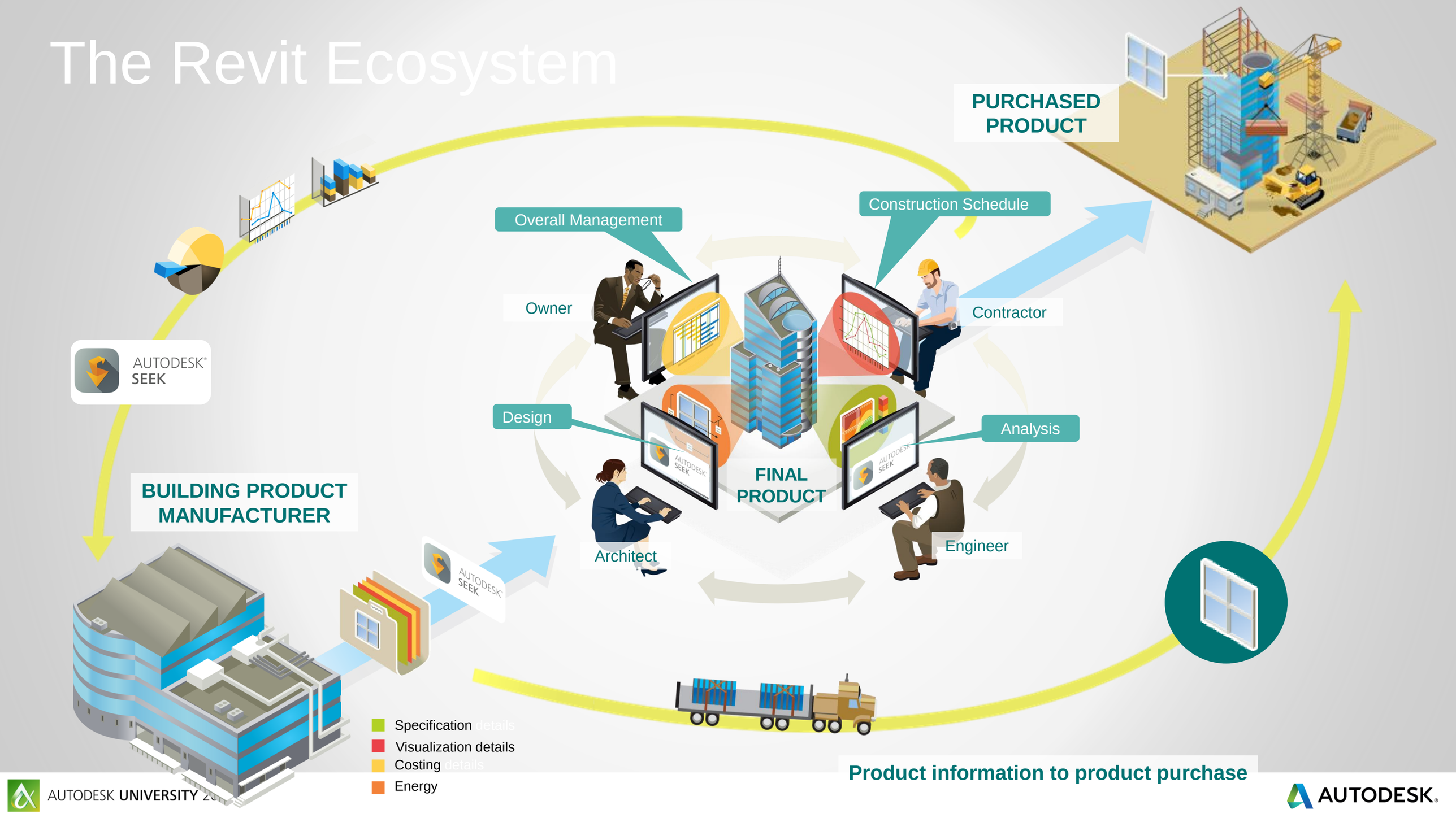
An Execution Plan

- **PeP**
- **PxP**
- **BeP**
- **PeG**
- **BeG**

The list goes on…



The Revit Ecosystem



What tools are available…

- There is a library of manufacturers content in the world that does exist! Now with Quality control! Did you know this?
- The Autodesk® SEEK Revit Library enables architects, engineers, and other design professionals to quickly discover, preview, and download branded and generic building information modeling (BIM) files, models, drawings, and product specifications for their active design sessions in Autodesk Revit® or AutoCAD® software.
- For building product manufacturers, Autodesk Seek offers a unique way to connect with the professional designers ultimately responsible for specifying and recommending their products for purchase
- LETS TAKE A LOOK…LIVE IN REVIT! BOOM…

The Status of BIM Adoption

	Overall	*North America*	*Europe*	*Oceania*	*Asia*	*Middle East & Africa*	*South America*
Technology Trigger	11.4%	0.0%	11.1%	10.0%	9.5%	28.6%	50.0%
Peak of Inflated Expectations	2.6%	3.7%	6.7%	0.0%	6.3%	20.0%	0.0%
Trough of Disillusionment	20.0%	7.4%	22.2%	20.0%	28.6%	0.0%	33.3%
Slope of Enlightenment	38.6%	48.1%	33.3%	40.0%	42.9%	28.6%	16.7%
Plateau of Productivity	21.4%	40.7%	22.2%	30.0%	4.8%	35.7%	0.0%

Fig. 1 Perceived status of BIM adoption in the Hype Cycle model

This paper reports the worldwide status of building information modeling (BIM) adoption from the perspectives of the engagement level, the Hype Cycle model, the technology diffusion model, and BIM services. An online survey was distributed, and 156 experts from six continents responded.

Source http://waset.org

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BIM Adopters and Advocates



Governments & municipalities:

- US Army Corp. of Engineers
- General Service Administration
- **CCA / Canada**
- US Veterans Affairs
- United States Navy
- States of TX, WI, LA, WY, IA

Facilities & Organizations:

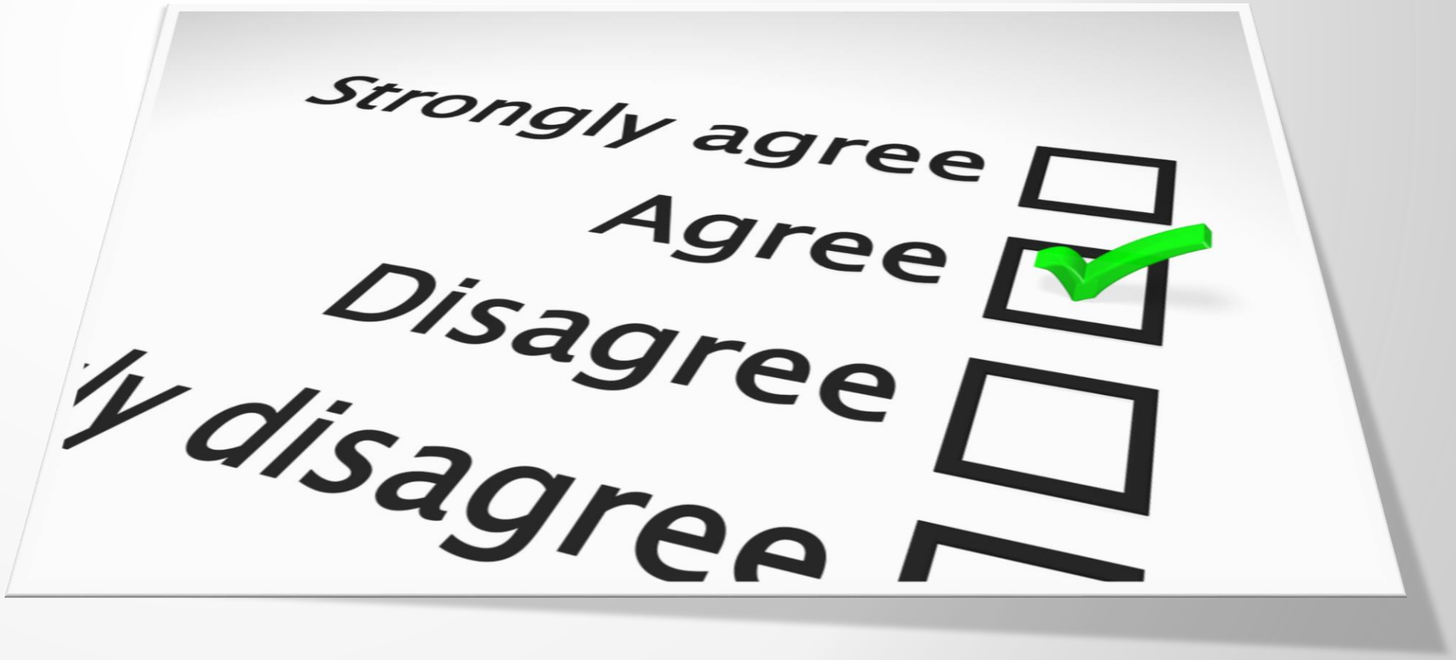
- University of Southern California
- Florida University
- Marriott
- Walmart
- Target

How does this effect my Project?

- You will now have a more clean & lean model
- Model Size is everything! Sharing externally and internal use.
- Where do you currently save your data?
- Upload & Download speeds
- Sync Speeds
- Opening in part (Worksets)
- Saving time = saving money, production time is expensive!

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