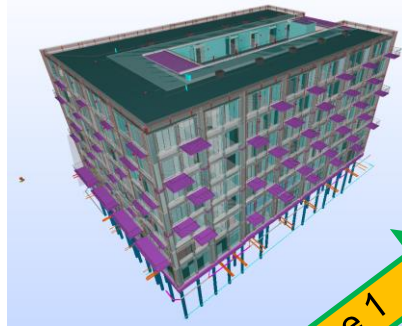
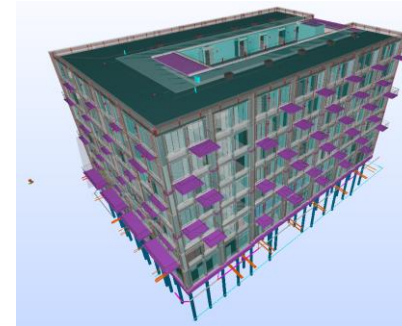


Challenge: Enrichment of BIM models



Challenge 1

CLASSIFICATION	DEMARICATION
LoadBearing	Structural engineer
Compartmentation	counselor fire
FireRating	counselor fire
Combustible	counselor fire
SurfaceSpreadOfFlame	counselor fire
AcousticRating	counselor acoustic
ThermalTransmittance	counselor thermal
reinforcement	Structural engineer
concrete quality	Structural engineer
Environment Class	Structural engineer
top_reinforcement	Structural engineer
bottom_reinforcement	Structural engineer
side_reinforcement	Structural engineer



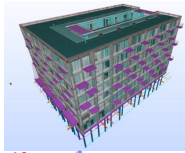
PROPERTIES



Enrichment native model



Challenge 2



IFC-export

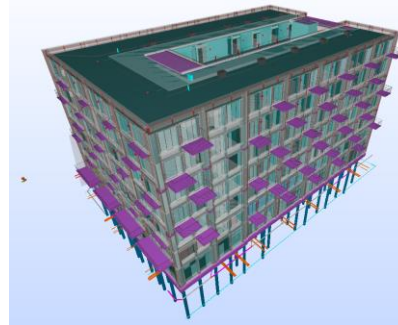
Challenge: Enrichment of BIM models



Modeller

- Editing GEOMETRIE

input



BIMmodel

input



counselor fire

input

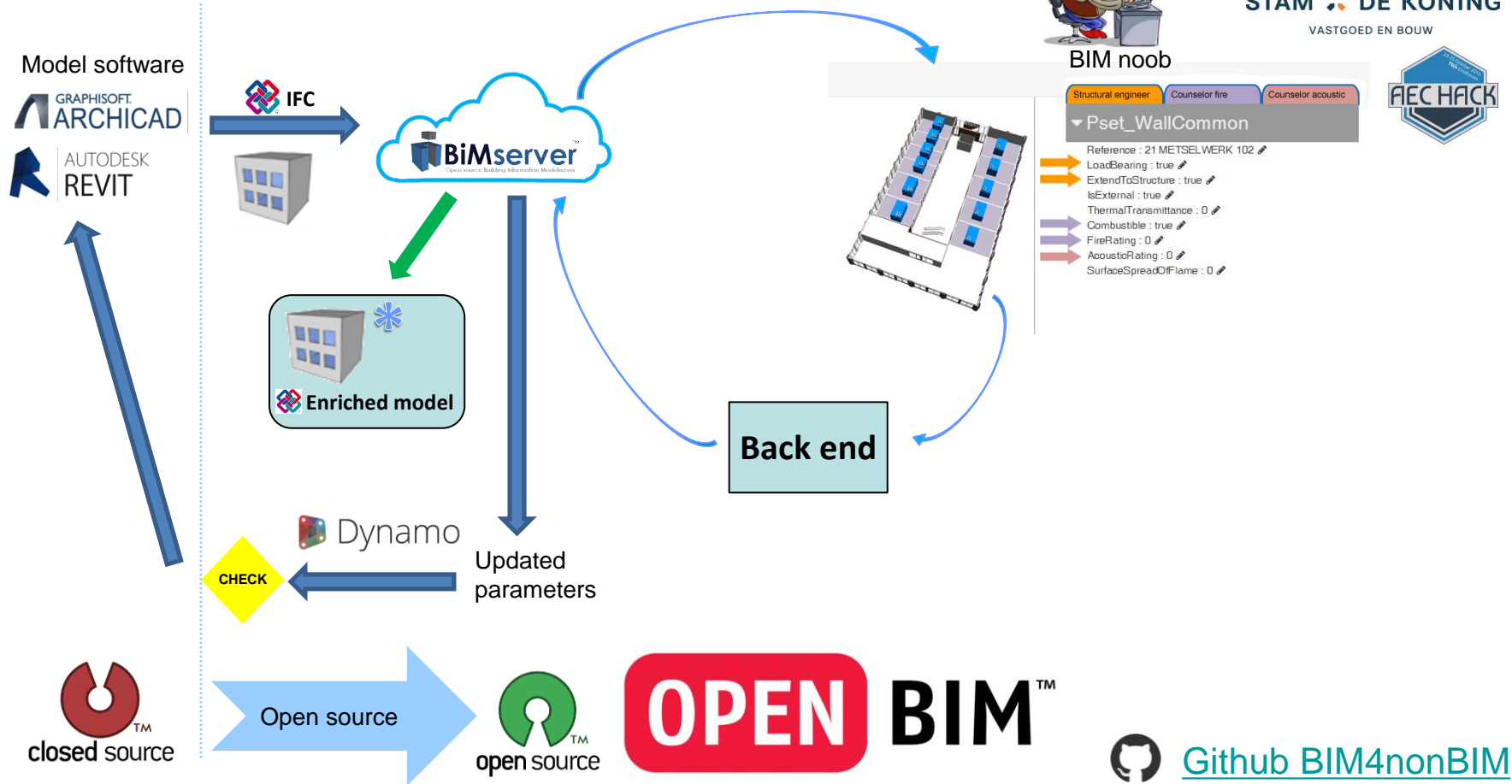


counselor acoustic

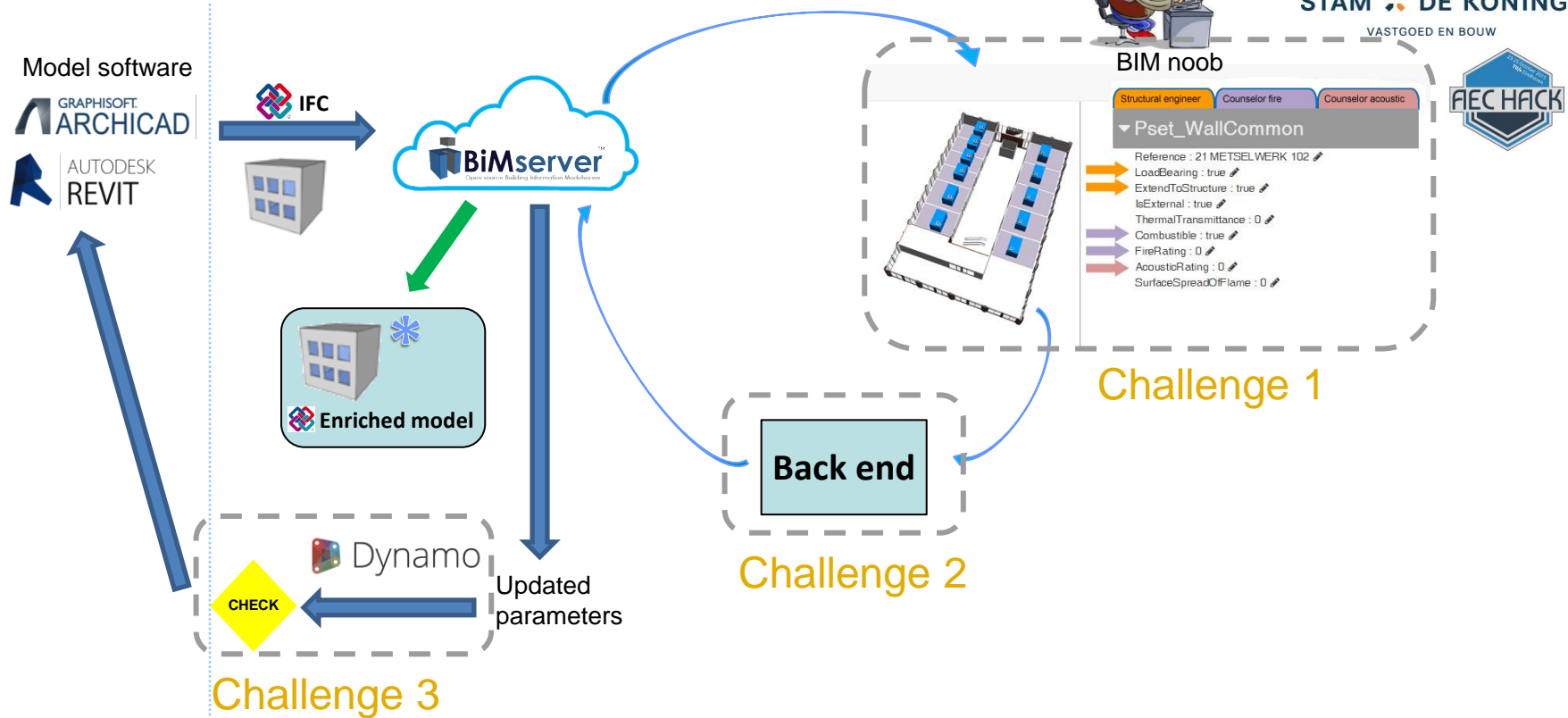


Input of other people for making a building
how don't know to modelling
(and you also don't want them to)

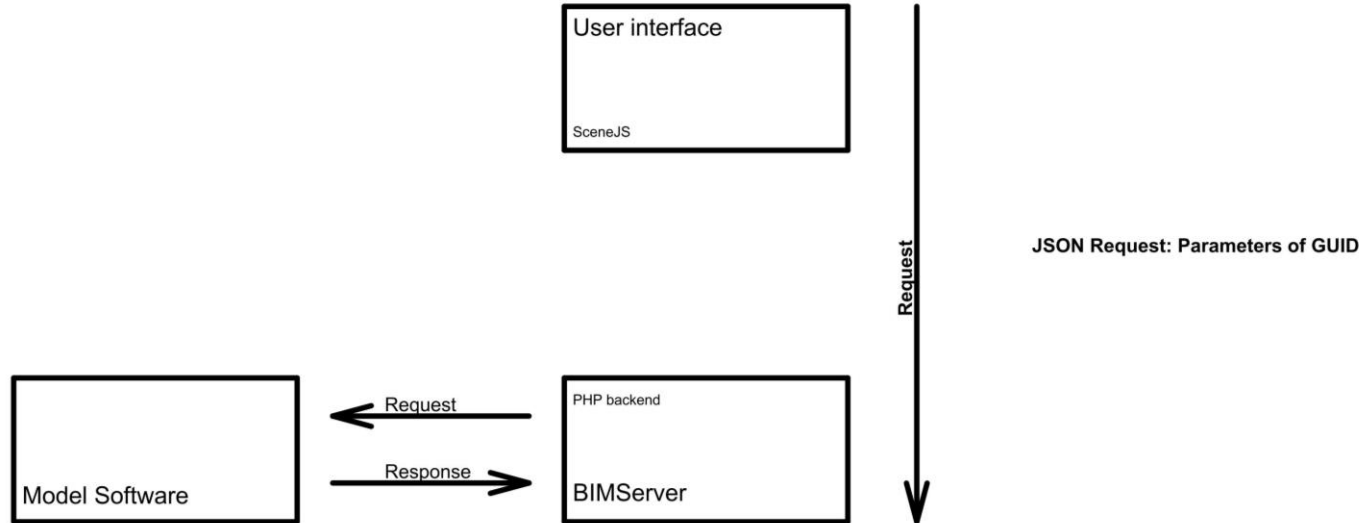
Challenge: Enrichment of BIM models



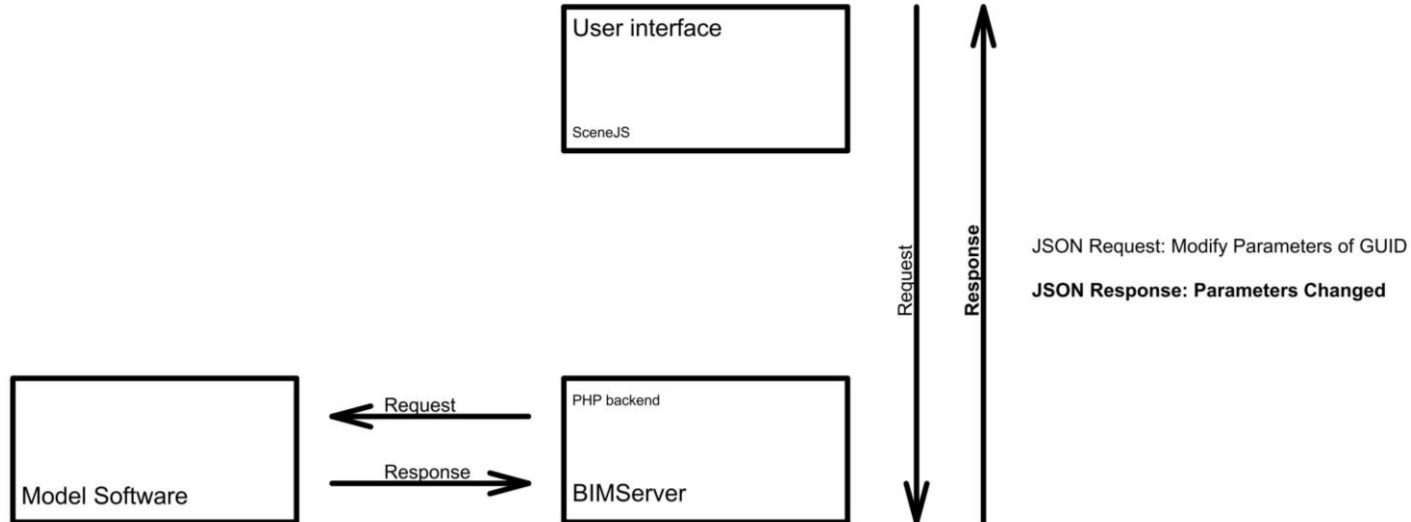
Challenge: Enrichment of BIM models



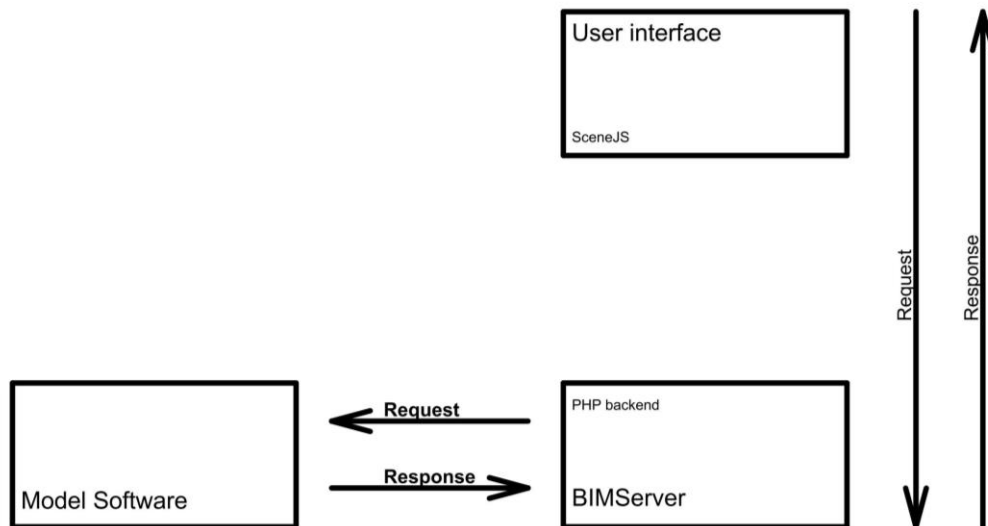
Challenge: Enrichment of BIM models



Challenge: Enrichment of BIM models



Challenge: Enrichment of BIM models

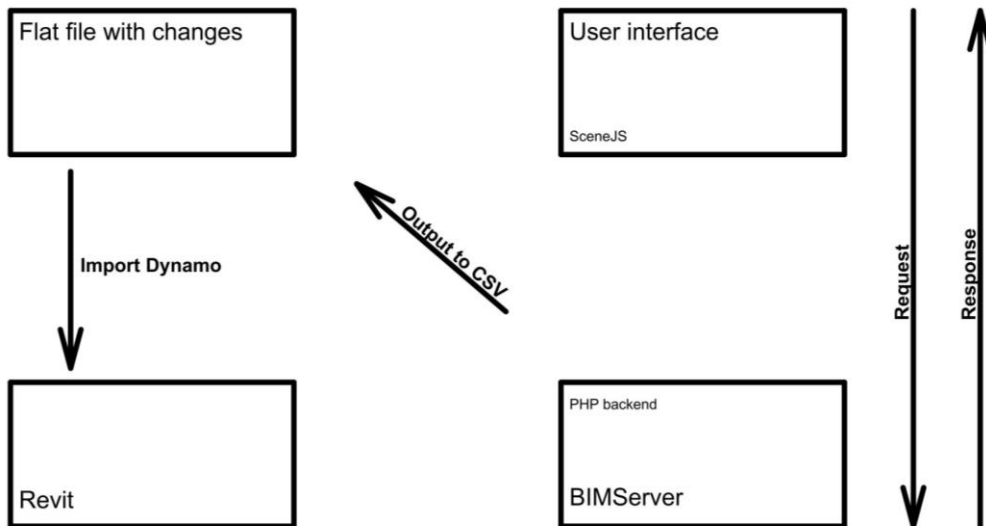


Request: Receive changes

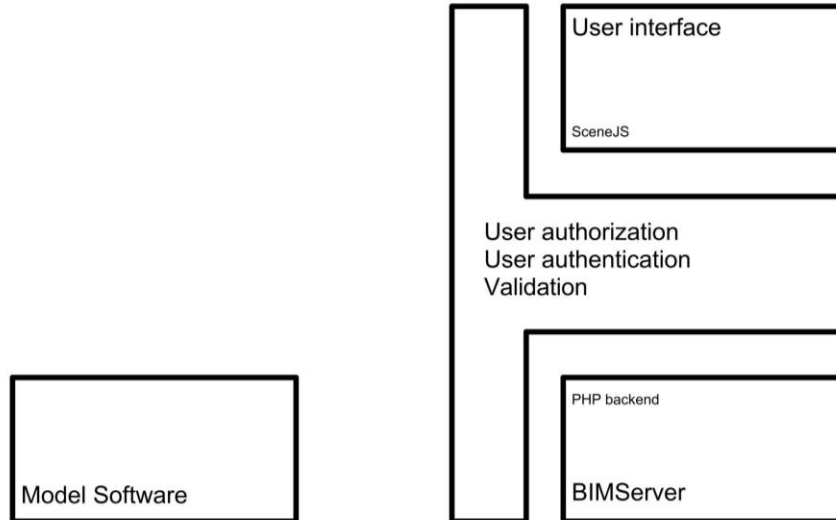
Response: Guid + Parameters



Challenge: Enrichment of BIM models



Challenge: Enrichment of BIM models



Challenge 1: User interface



Structural engineer | Counselor fire | Counselor acoustic

▼ Pset_WallCommon

Reference : 21 METSELWERK 102

- LoadBearing : true
- ExtendToStructure : true
- IsExternal : true
- ThermalTransmittance : 0
- Combustible : true
- FireRating : 0
- AcousticRating : 0
- SurfaceSpreadOfFlame : 0

User interface:

- Multi selection
- Finding bugs on BIMserver
- Feedback het te be searched for (time consuming)
- UI
- Sending request for changes (parameter-value)

Live DEMO 😊



Challenge 2: Back end



Nothing wrong with that

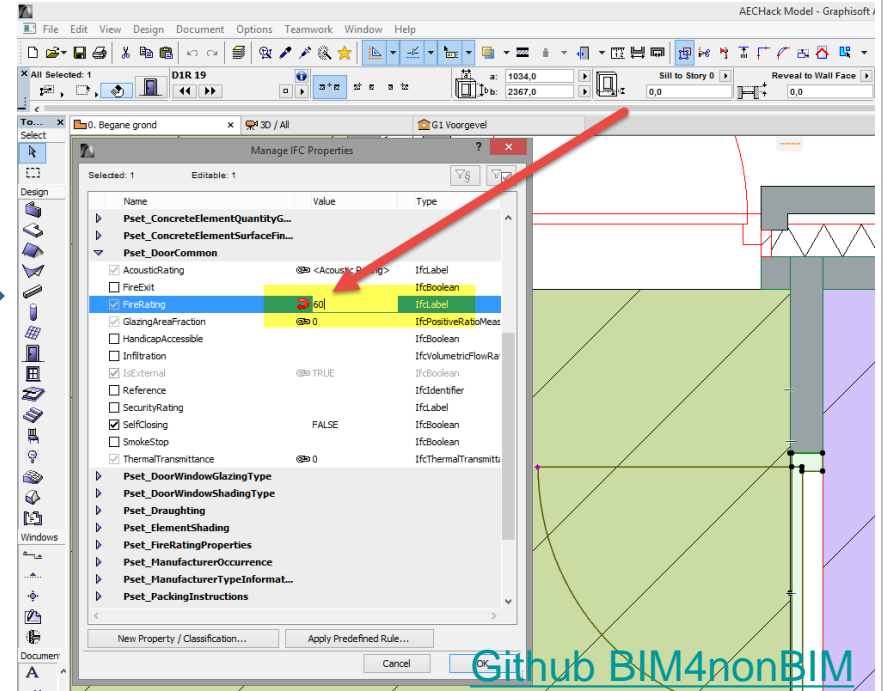
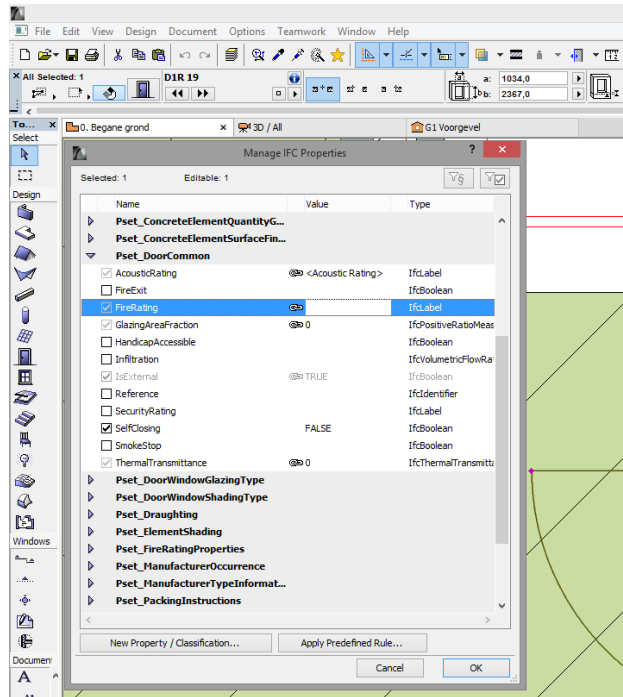
Back end:

- Receives 'Update' from Frontend
- Creates a new Revision on the bimserver with the new data.
- Saves a 'changes' CSV file.

Challenge 3: Update native model



ArchiCAD has an native option to import changed properties from IFC.



Github BIM4nonBIM

Challenge 3: Update native model



BIMserver Dynamo node



CSV-file



```
Bestand Bewerken Opmaak Beeld Help
UniqueID,ParameterName,Value
945b15ee-0048-4eb7-b02c-ccc92afaf1a1-00118aa2,brandwerendheid,30
945b15ee-0048-4eb7-b02c-ccc92afaf1a1-00118aa3,brandwerendheid,30
945b15ee-0048-4eb7-b02c-ccc92afaf1a1-00118aa5,brandwerendheid,60
945b15ee-0048-4eb7-b02c-ccc92afaf1a1-00118aa6,brandwerendheid,60
945b15ee-0048-4eb7-b02c-ccc92afaf1a1-00118aa7,brandwerendheid,60
945b15ee-0048-4eb7-b02c-ccc92afaf1a1-00118aa6,Comments,geel
945b15ee-0048-4eb7-b02c-ccc92afaf1a1-00118aa7,Comments,rood
945b15ee-0048-4eb7-b02c-ccc92afaf1a1-00118ab4,Comments,blauw
```

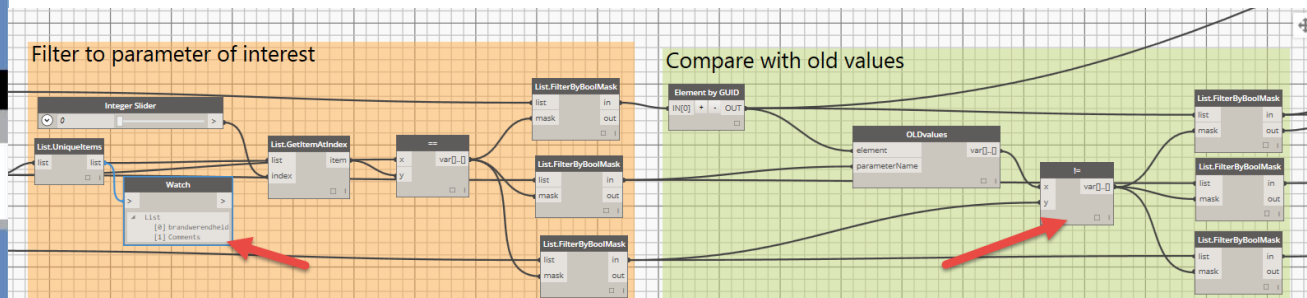
Import chants property values to Revit:

- Revit don't suport improting of IFC

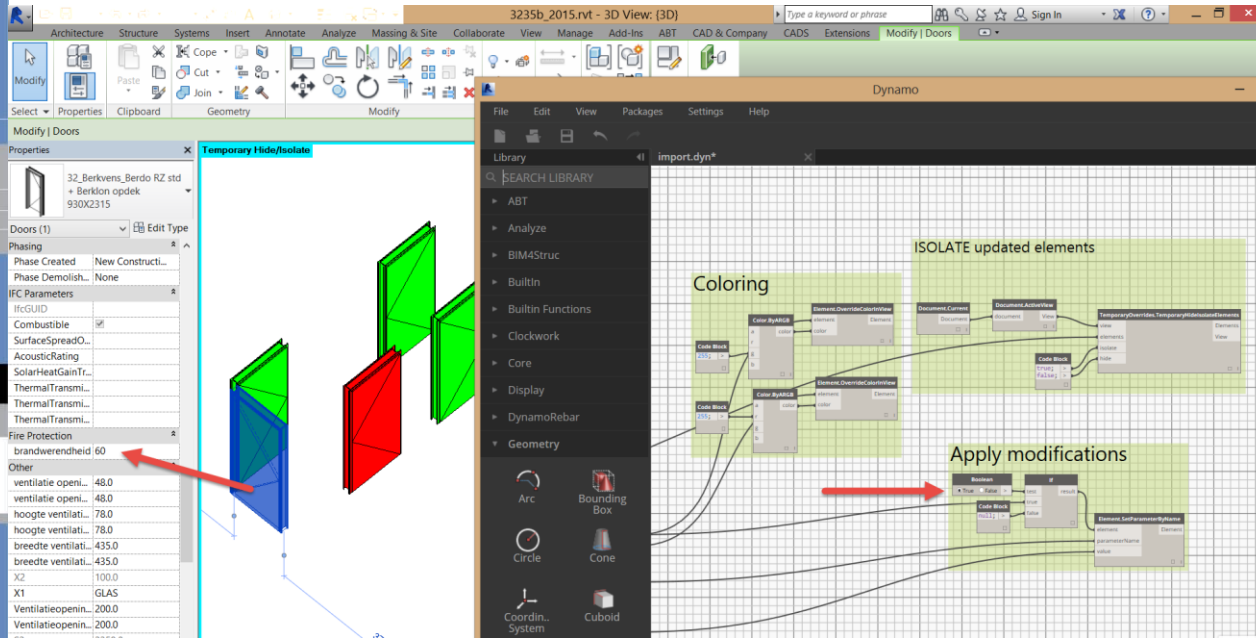
3 options:

- The back end generates a chance list
- Json call form Dynamo to BIMserver
- BIMserver generates a al list of chanes between revisions (dont work)

Filter to parameter of interest



Challenge 3: Update native model

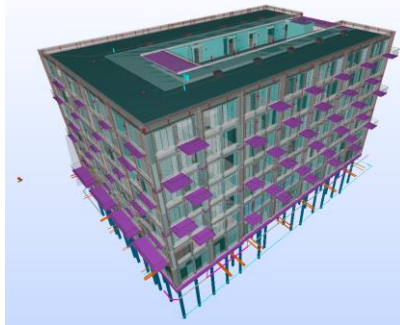


Dynamo import + check

- 1 by 1 selection of parameters
- Compare with existing value
- Visualize changes (isolate)
- Optional merge

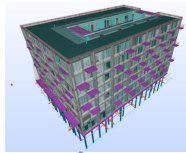
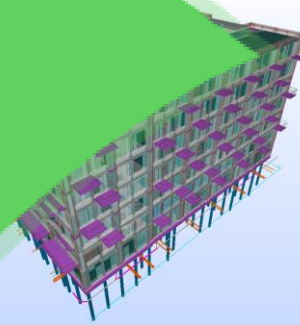


Challenge: Enrichment of BIM models



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top_reinforcement	Structural engineer
bottom_reinforcement	Structural engineer
side_reinforcement	Structural engineer

PROPERTIES



IFC-export

Autodesk
REVIT