

FEATURE MODELS

You won't believe your eye.

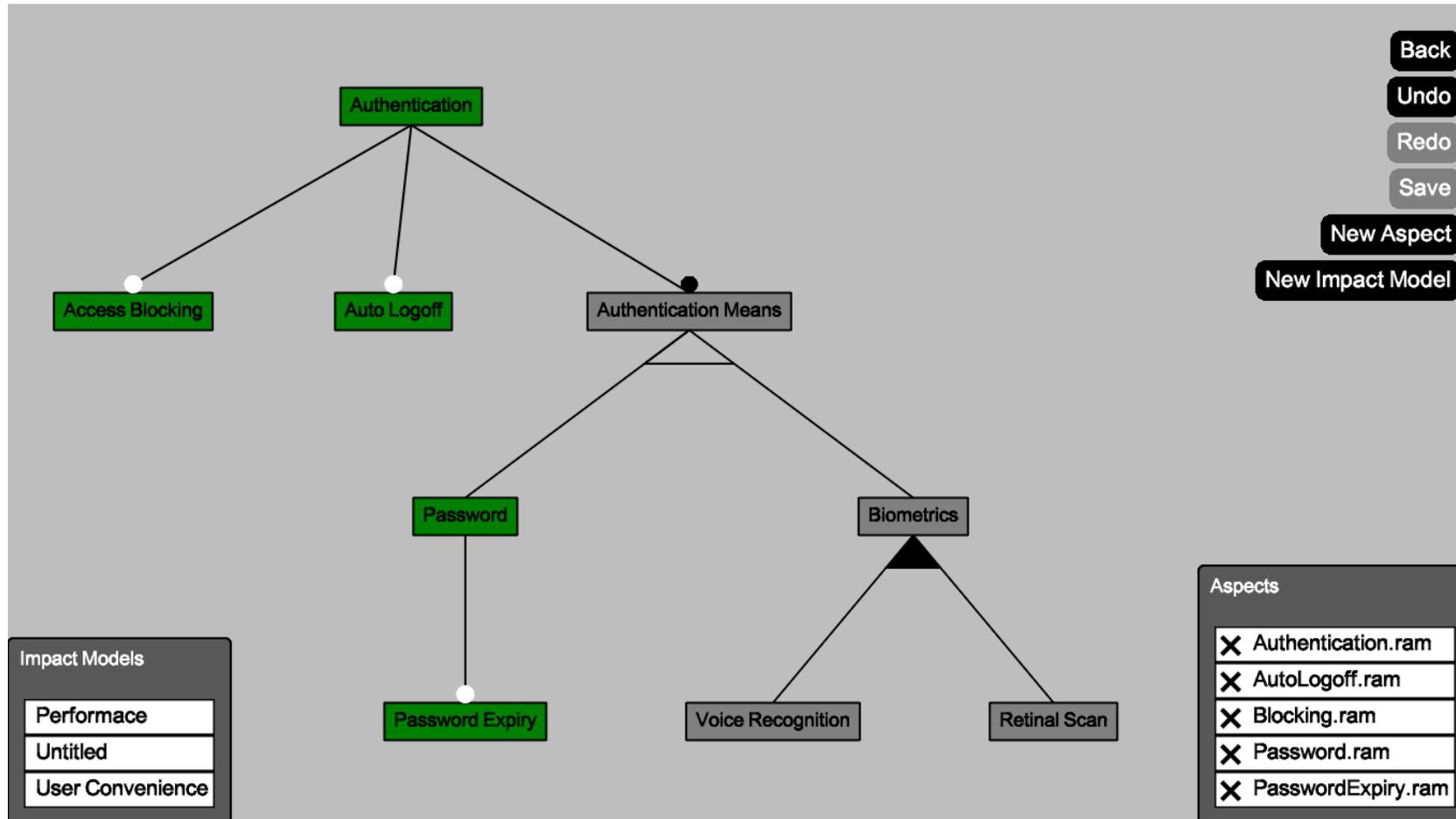
Introduction

- Key Concepts of Concern Orientation

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 - **Variation interface**
 - Customization Interface
 - Usage Interface
- Feature Model – Represents the relationships and dependencies that exist between features effectively and expresses them visually in a tree format

Feature Model



Relationships and Dependencies

- Relationships
 - Mandatory
 - Optional
 - XOR
 - OR
- Dependencies
 - Excludes
 - Requires

Realization

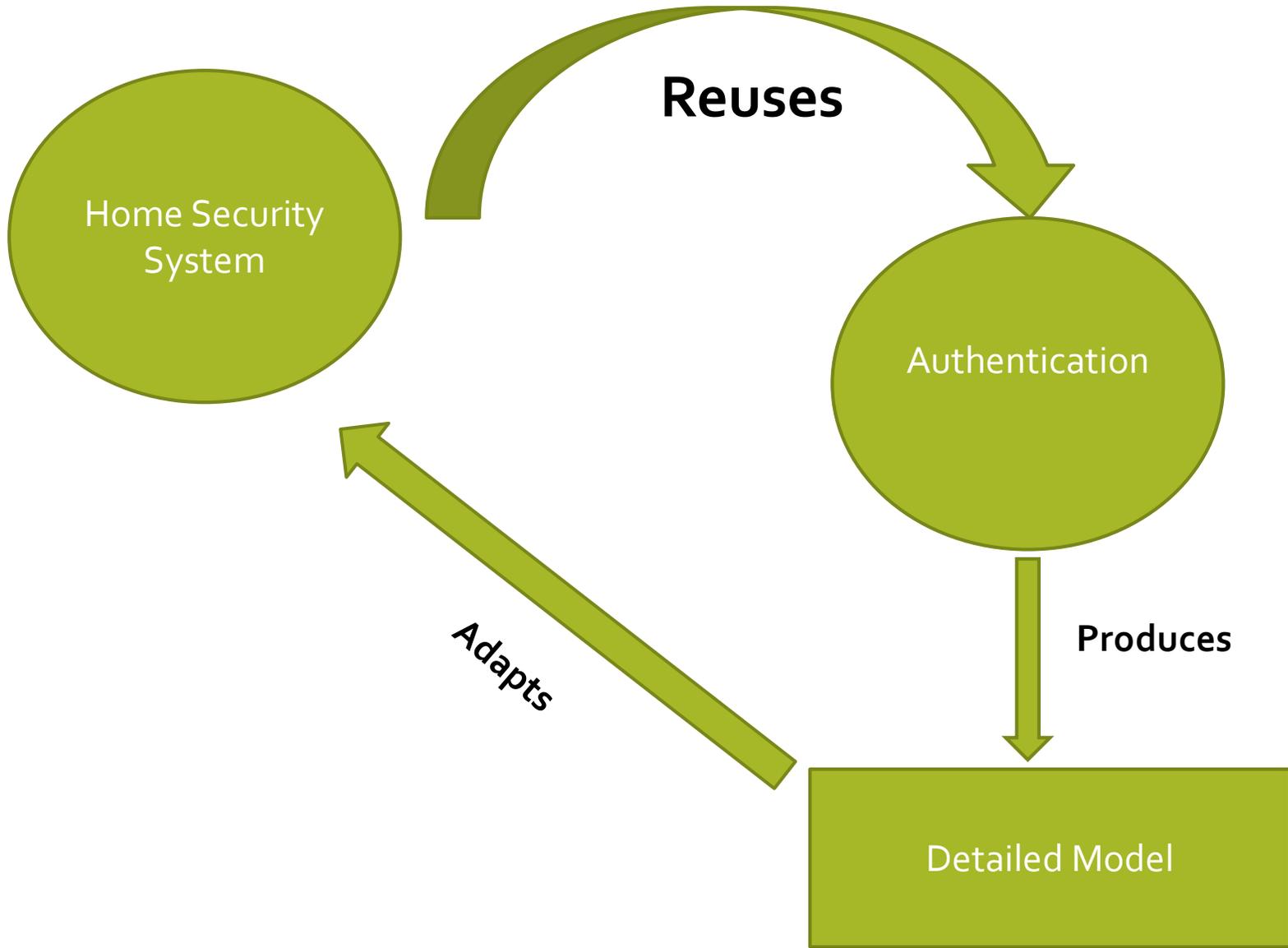
- The designer needs to realize each of the feature specified.
- i.e Model the relevant structural and behavioral properties of each feature using appropriate modelling notations.
- Finally designer expresses the impact of different features using goal models.

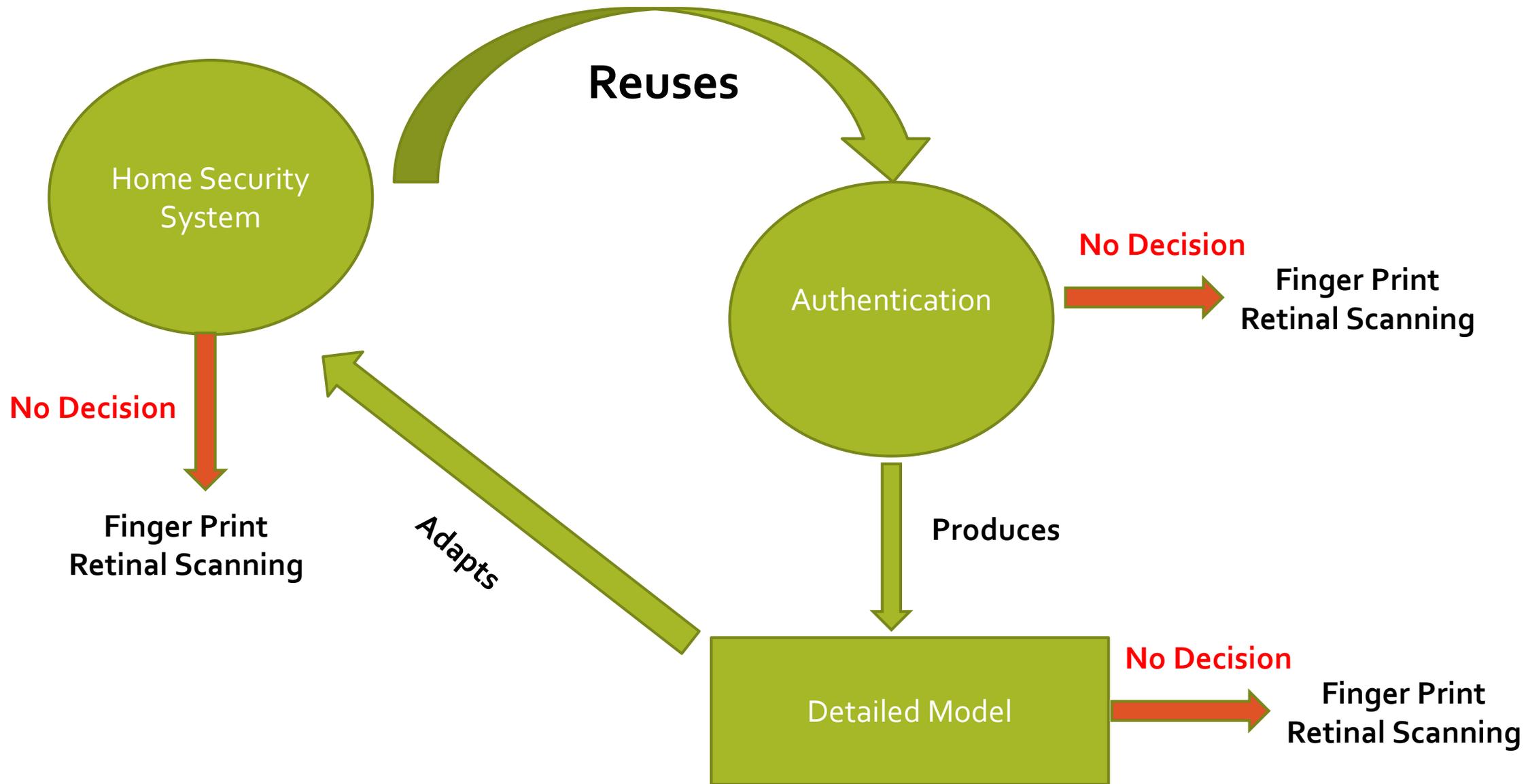


Concern Reuse

- **Three Step Process**

- Selecting the Features.
- Adapting the detailed model to application context.
- Using the concern.



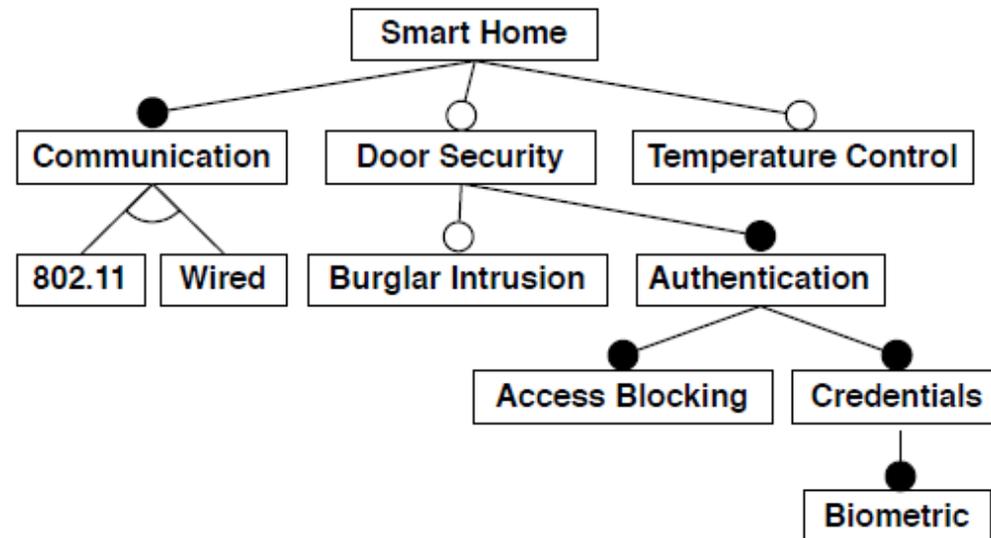


Feature Model Visualization

- Different types of visualization depending of whether a concern is being used or designed aka different needs of concern designer / user.

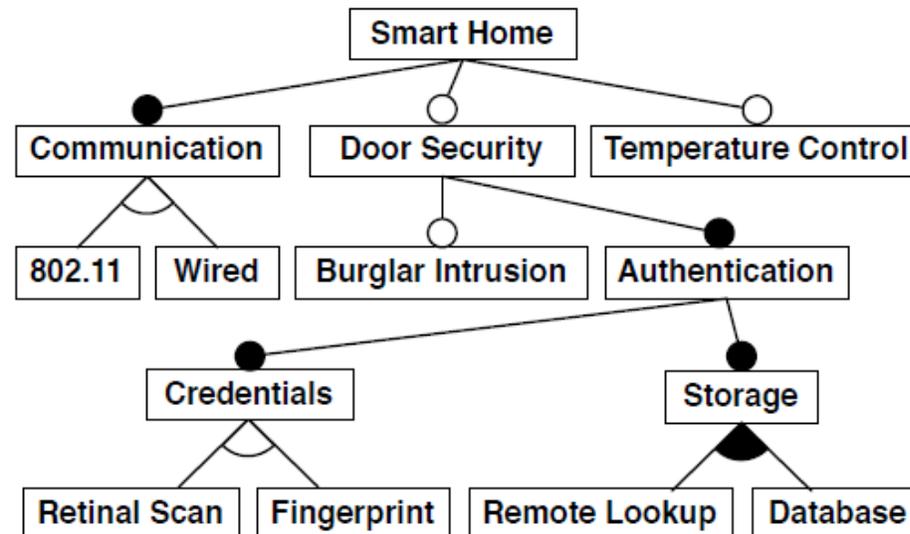
Concern Designer

- Must know all the selected features when reusing a concern.
- Helps to clearly communicate that he can depend on functionality provided by the selected features.
- Since the child features can also depend on the concern reuse. (Reused features)



Concern User

- Concern “Selector” does not need to know what all choices were made by the previous user / selector.
- Concerned only with the choices he needs to make.
- Hence only the immediate choices to be made should be shown.



THANK YOU
