Eclipse MDT Papyrus Collaborative Work

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Agenda

- Collaborative work within Papyrus
- Split your model
- Work with restrictions on the model
- Reassemble your model
- Model loading policies
- Handle UML profiles and stereotypes

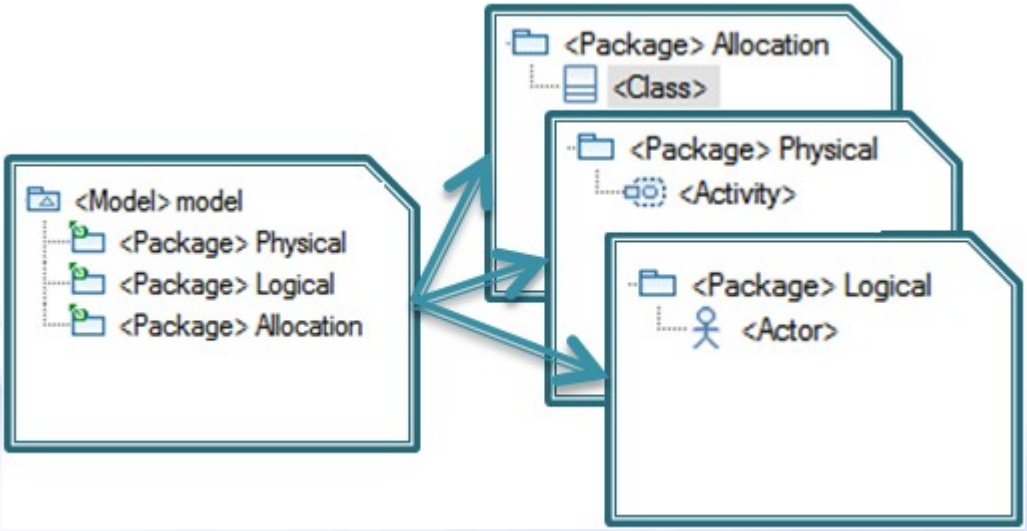
Collaborative work within Papyrus

- MDT Papyrus provides a way to
  - Split a model into multiple parts
  - Manage resources loading

- These points allow users to
  - Make team work possible on a model
  - Work on huge models
  - Adapt model loading according to their context

Split your model

- Control action
  - Comes from EMF
  - Enables exporting a part of the model into a new file
  - Several files for several users, still one model



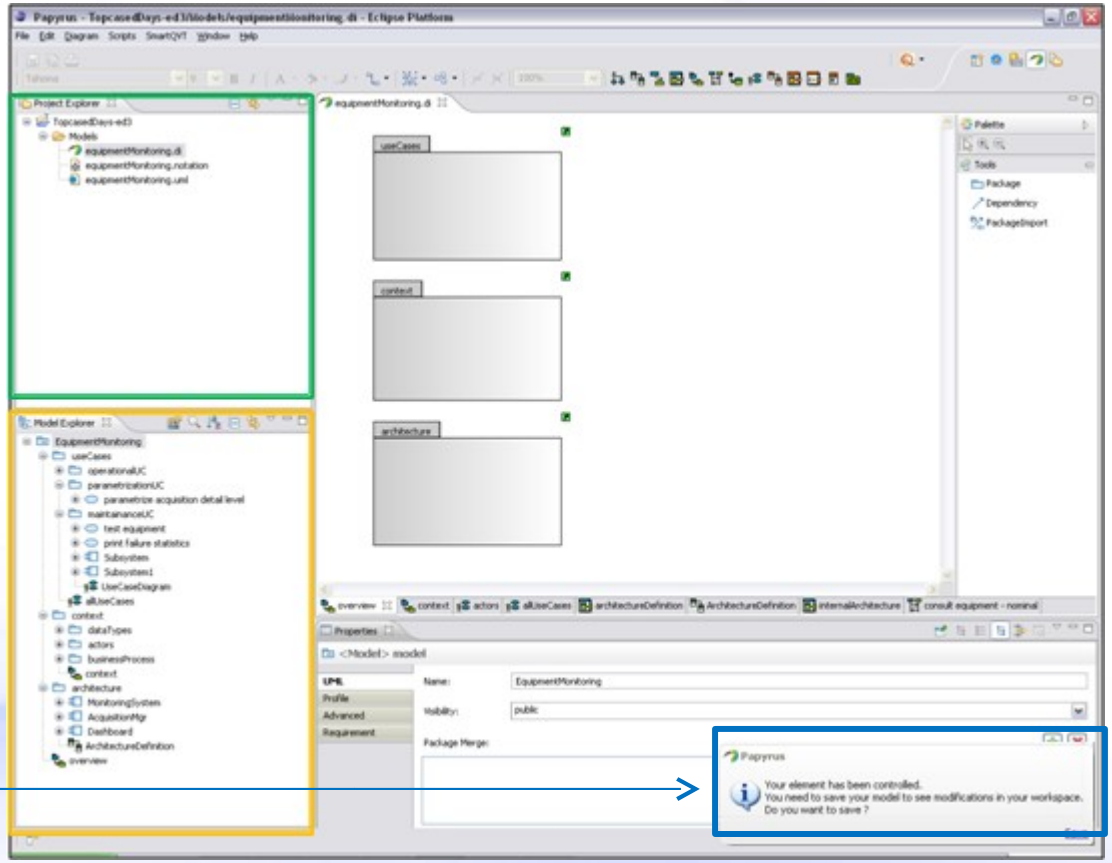
Papyrus environment

- Some relevant views for collaborative work

Project Explorer view:
Physical view of the model

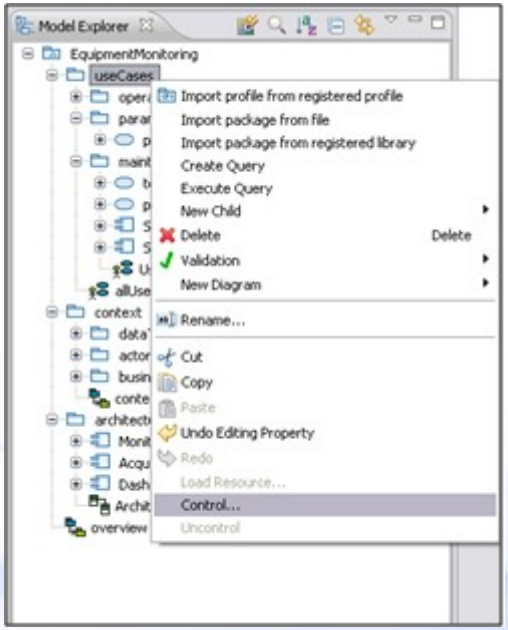
Model Explorer view:
Logical view of the opened file

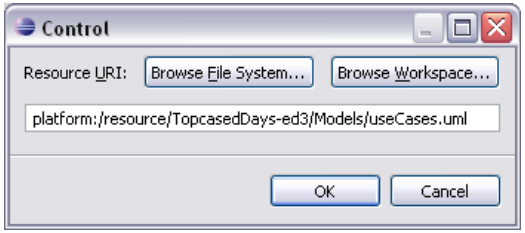
Papyrus notification



Control action

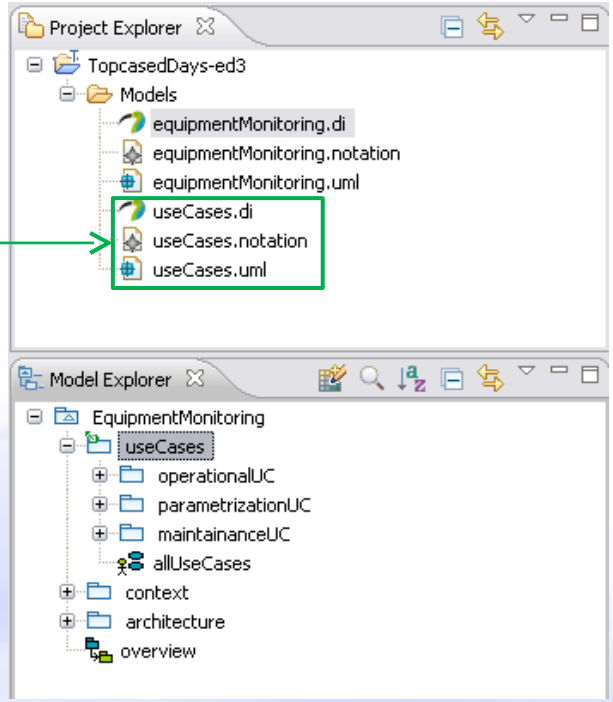
- Activated on structural element such as Package
- Perform control action to export the model part





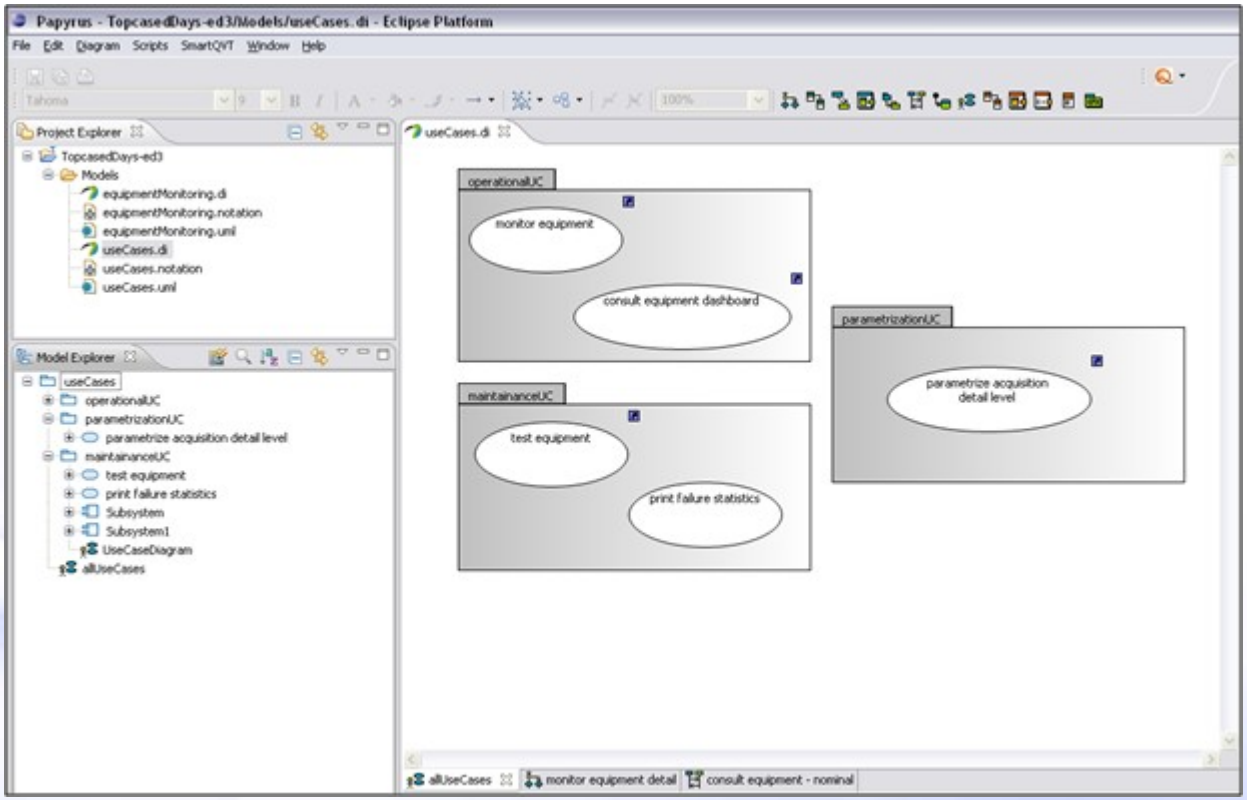
Control action

- Once control is done, model part is exported
  - New files are created
  - Icon appears on the exported package



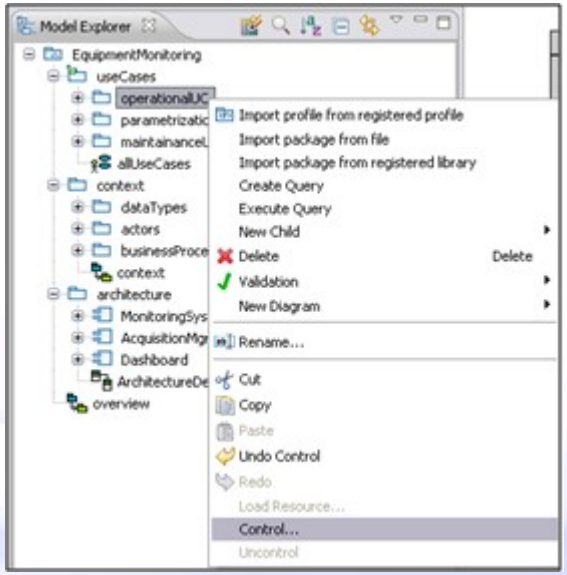
Open part of the model

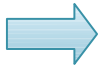
- You can open the model part as a single part
  - Part's content is visible only

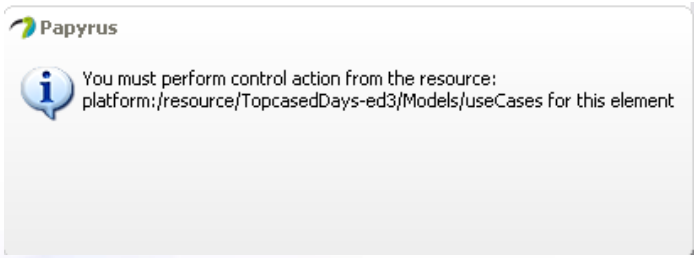


Notification with control

- Notification to be aware of
  - You can't control a model part from a file that does not contain this part

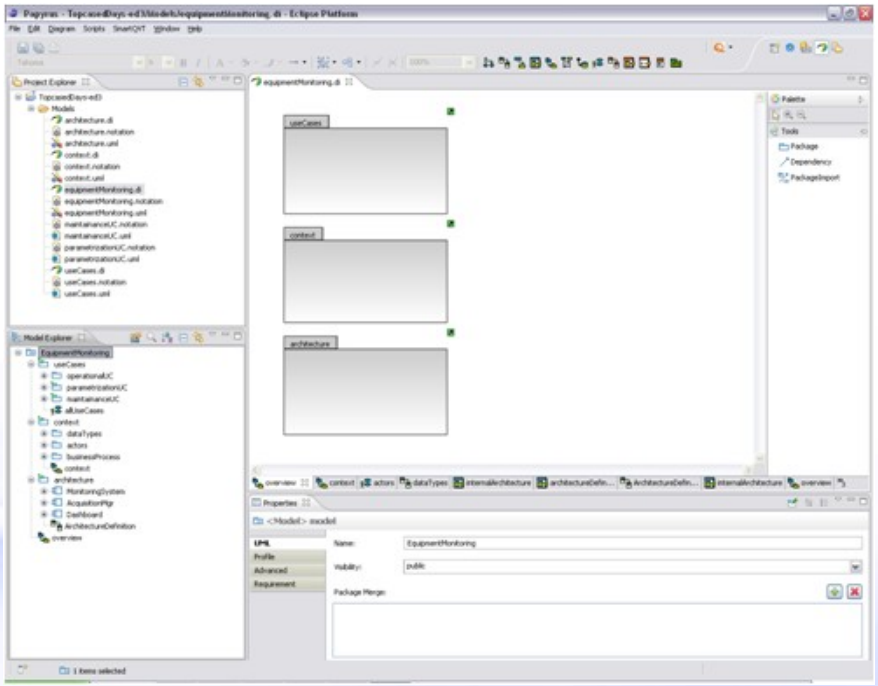






Split the model

- You are now able to split your model
  - Each user works on a model part
  - Add restrictions to go beyond on the team work



Restrictions on model parts

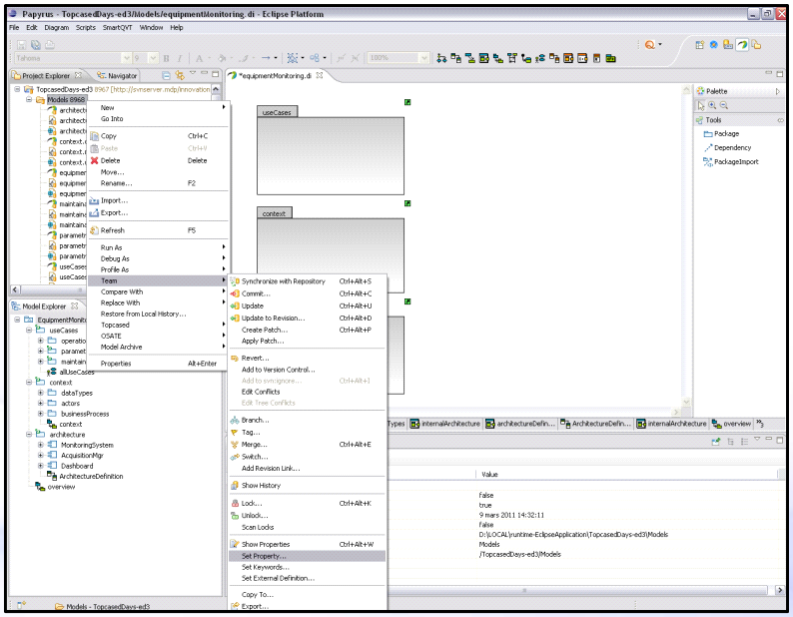
- Adding restrictions enables to
  - Forbid modifications on a wrong model part
  - Avoid conflict situation with model merging
- There are several ways to add restrictions
  - A possible choice is the pessimistic mode with SVN

Work in pessimistic mode with SVN

- The aim is to use locks for synchronization
  - A user needs to lock files to work on it
  - Locked files are read-only for other team members

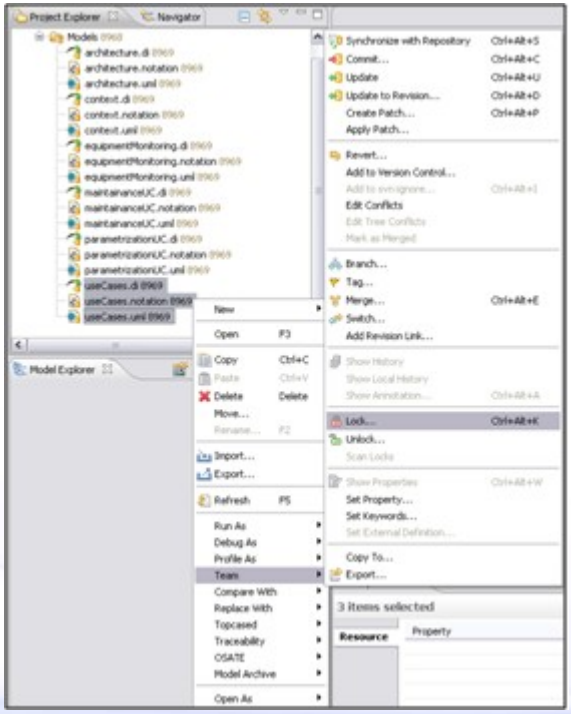
Configure lock on SVN

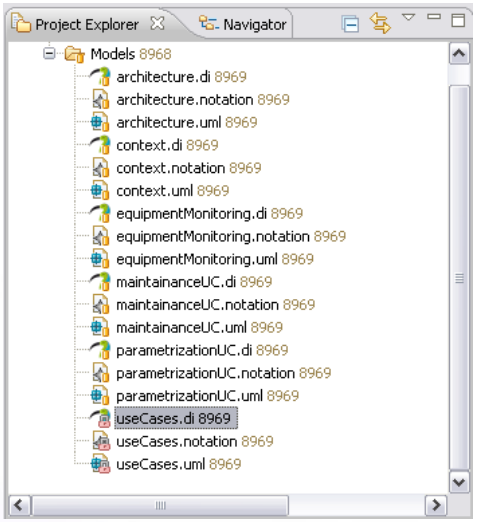
- Right click on the folder in the Project Explorer view
  - Team menu and Set Property menu item
  - Then commit changes



Work on model part

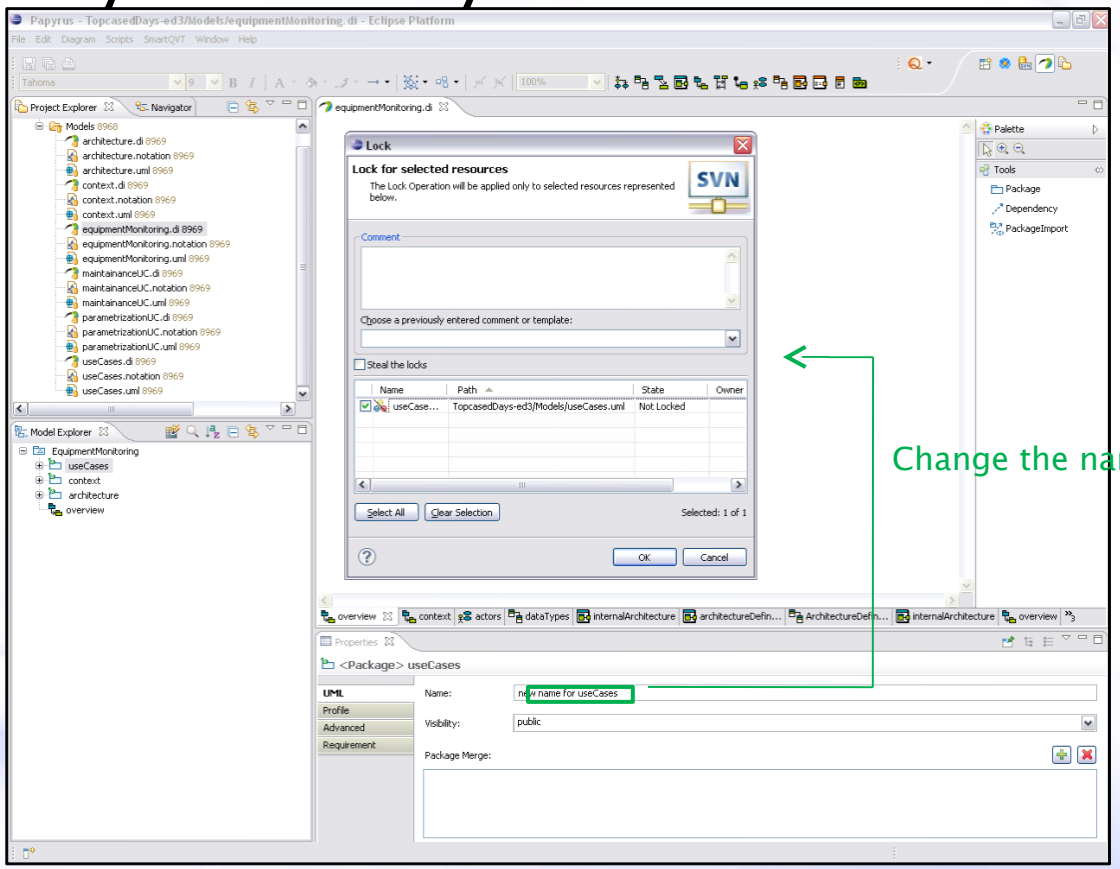
- You need to lock files you want to work on





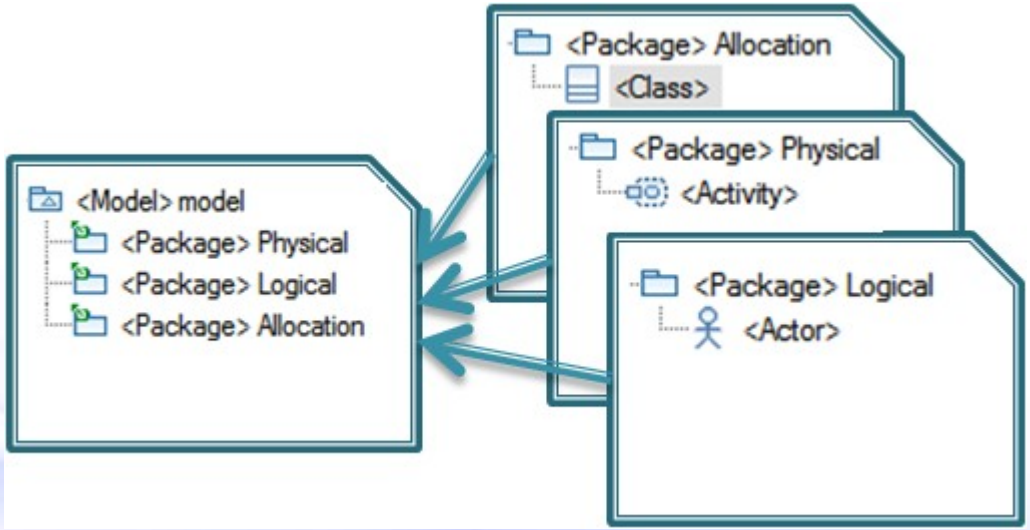
Model restrictions

- If you try to modify an unlocked file



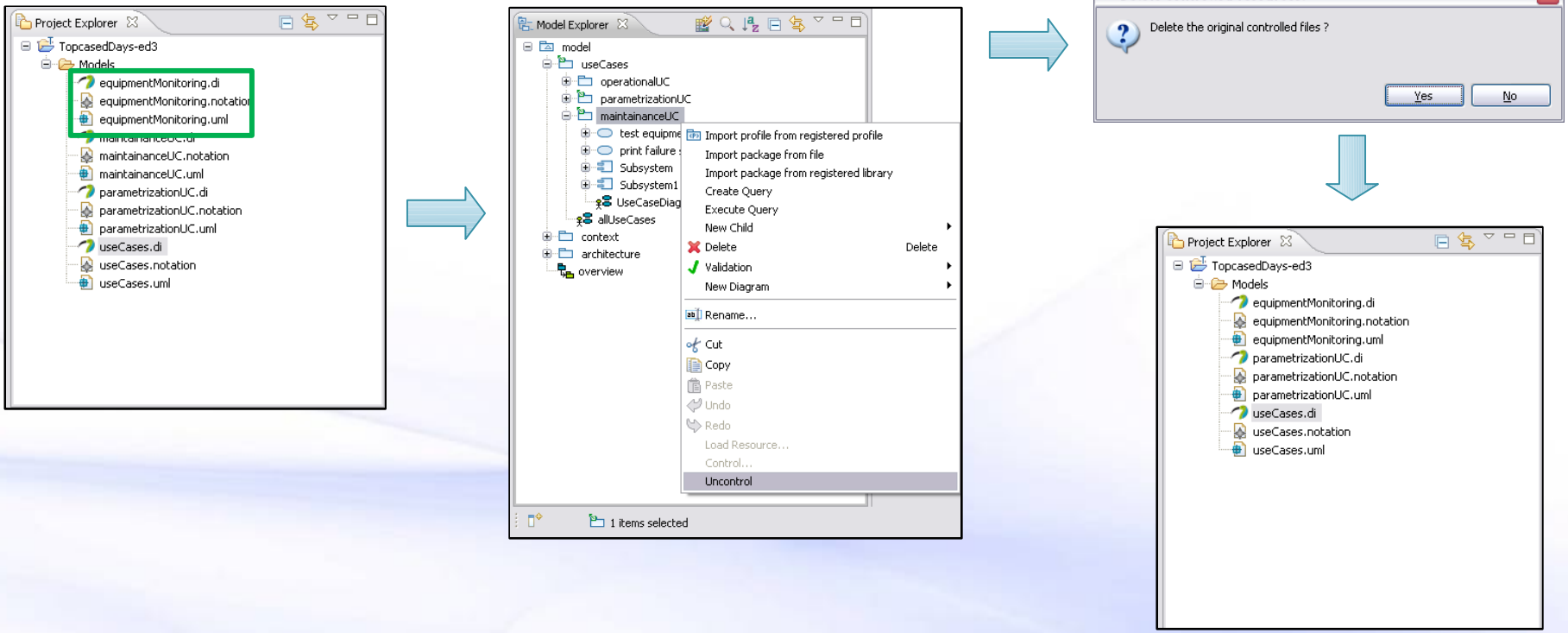
Reassemble your model

- Uncontrol action
  - Enables to reassemble a part of the model into the initial file
  - One file for one model



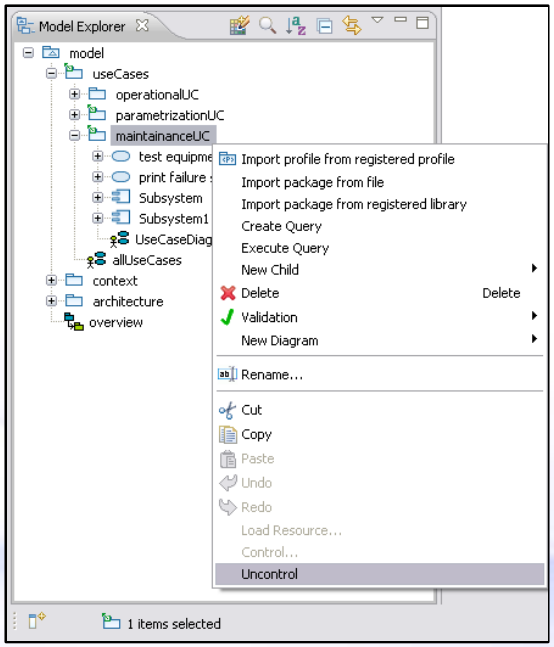
Uncontrol action

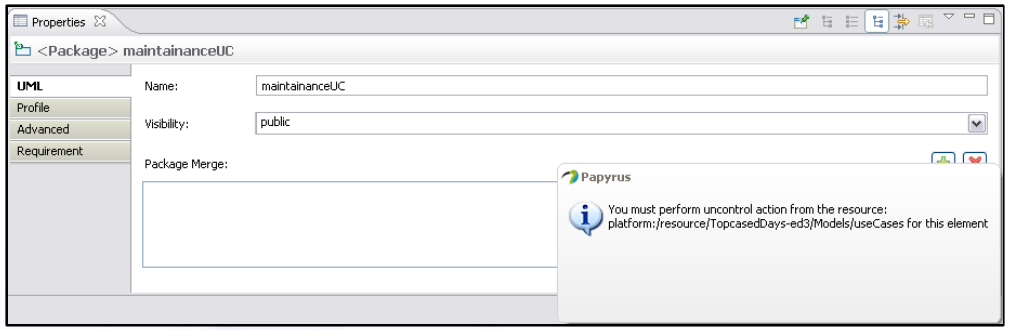
- Available on controlled element only
- Reassemble element content into the initial file



Notification with uncontrol

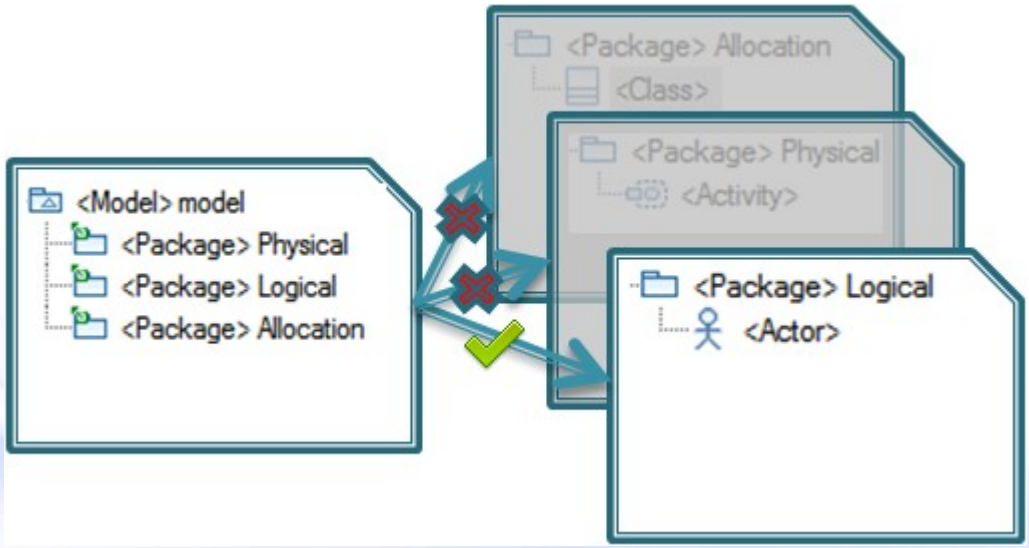
- Notification to be aware of
  - You can't uncontrol a model part from a file that did not contain this part





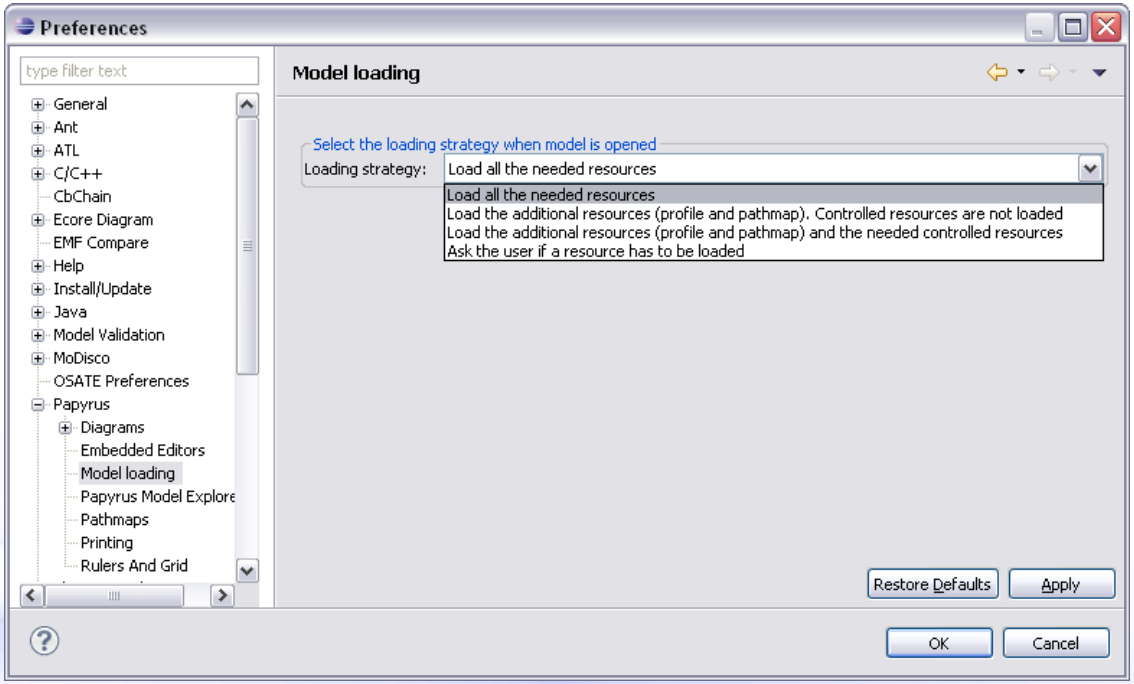
Model loading

- Why change model loading ?
  - Avoid unneeded model part loading
  - Improve model loading performance
  - Quickly open a part of a huge model



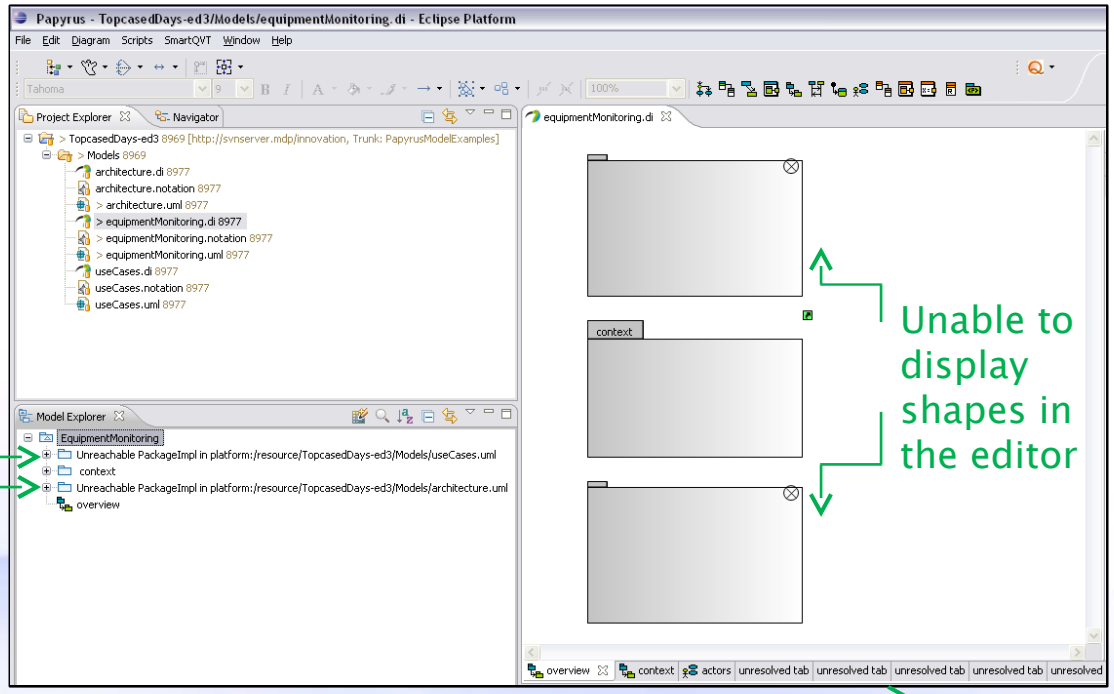
Loading policies

- Several model loading policies
  - Available in papyrus preferences (window menu)



Loading policies: example 1

- A sneak peek at loading policies
  - Try with a relevant case:
    - Load the additional resources. Controlled resources are not loaded



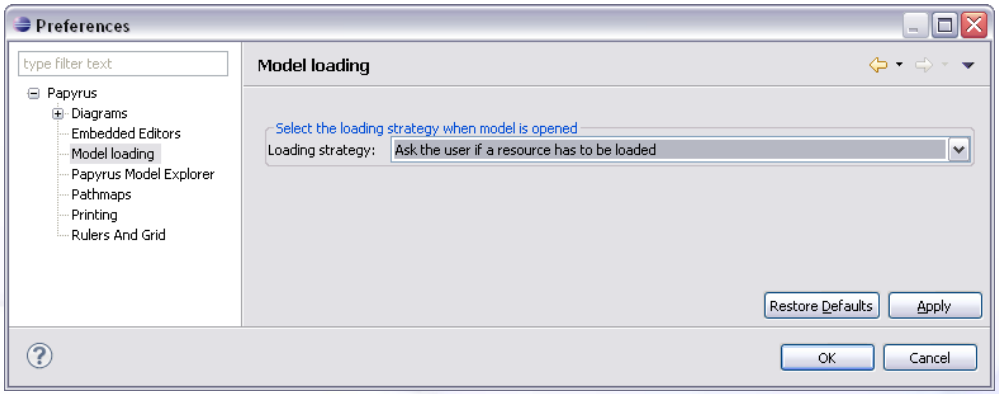
Unreachable elements in Model Explorer view

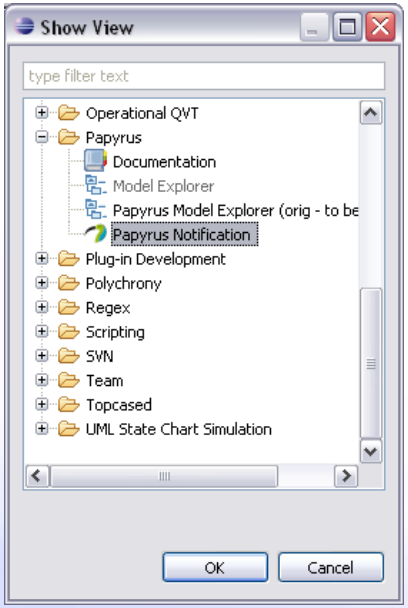
Unable to display shapes in the editor

Unresolved tabs for unloaded diagrams

Loading policies: example 2

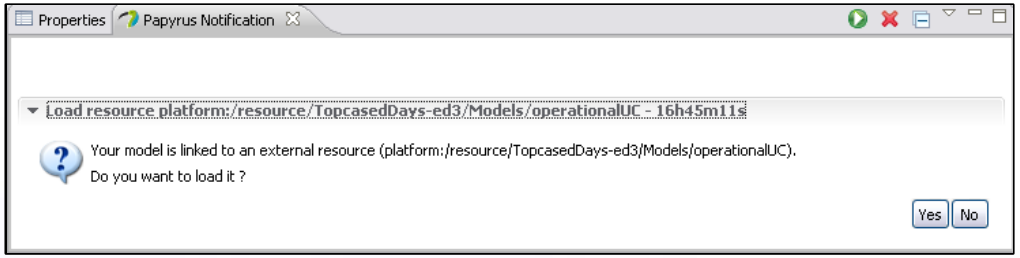
- Another relevant case
  - Ask the user if a resource has to be loaded
    - First set this policy in preferences
    - Then open the notification view: Window > Show View > Other

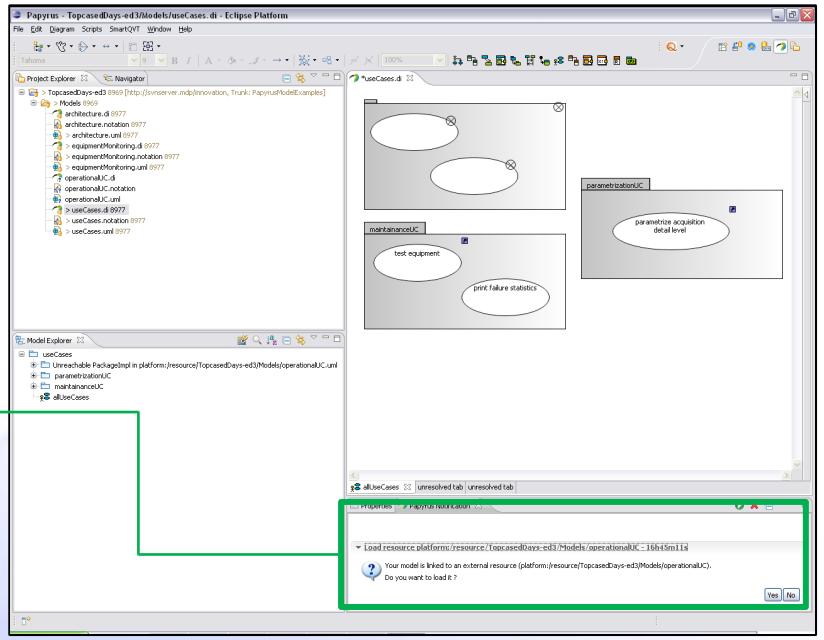




Loading policies: example 2

- Open the model
  - All the referenced resources are listed in notification view
  - Choose “Yes” to load the resource you want

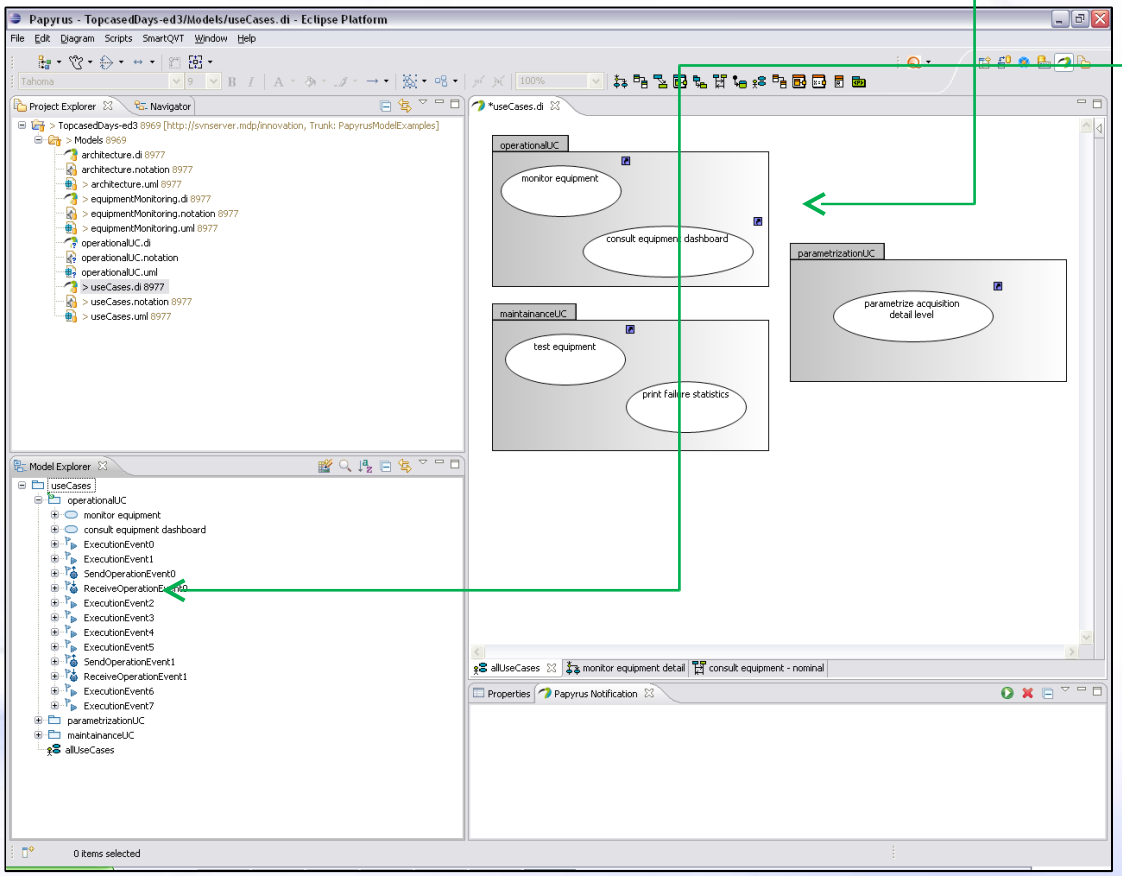




The choice is saved and will be reset at Application restart.

Loading policies: example 2

- Resource is loaded on the fly and model is updated

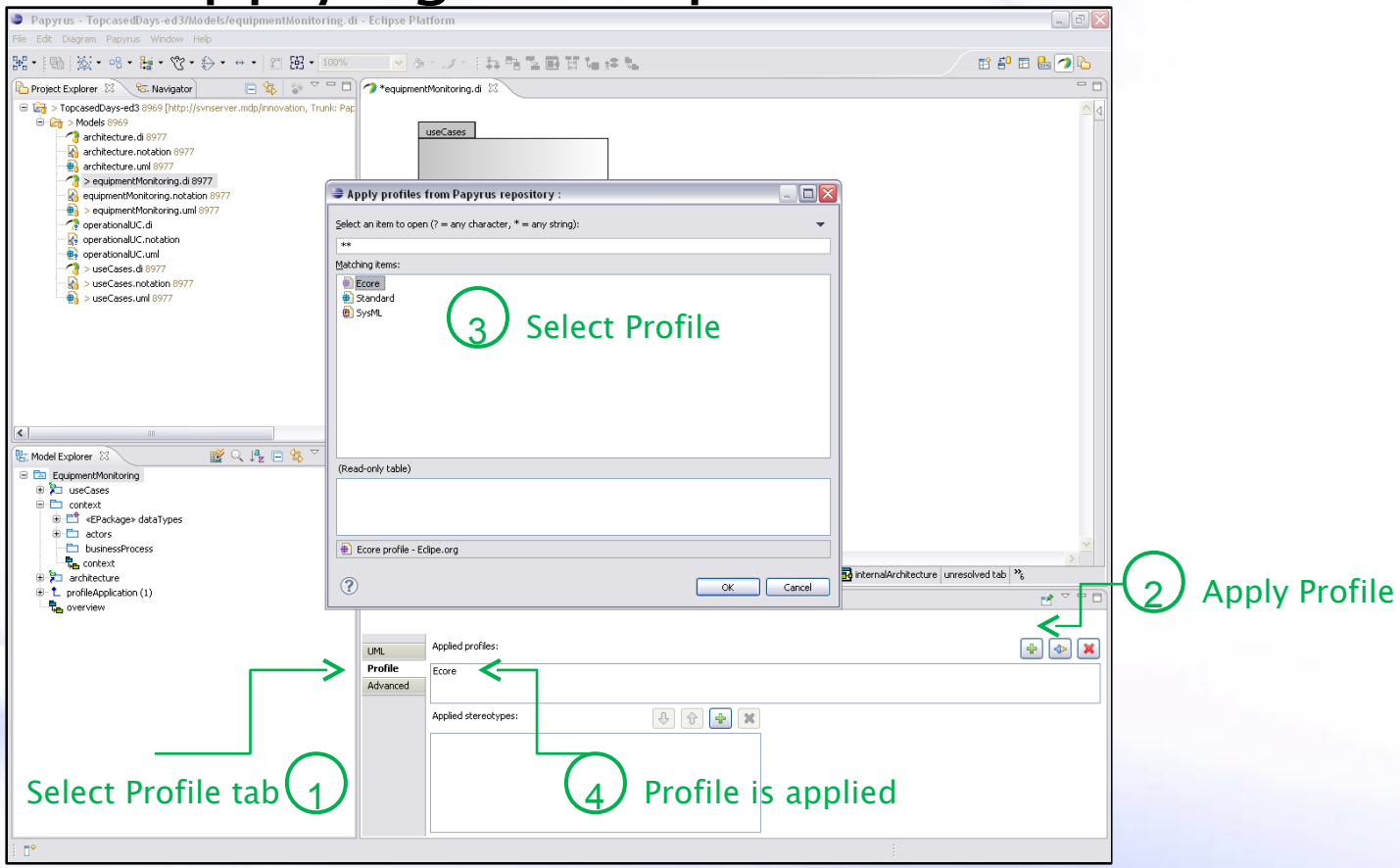


Manage UML profiles

- Some constraints exist on UML profiles
  - Profile application must be visible from stereotype elements
  - Profile application on a model is not visible from a model part
  - Profile application is duplicated on controlled element to handle this constraint

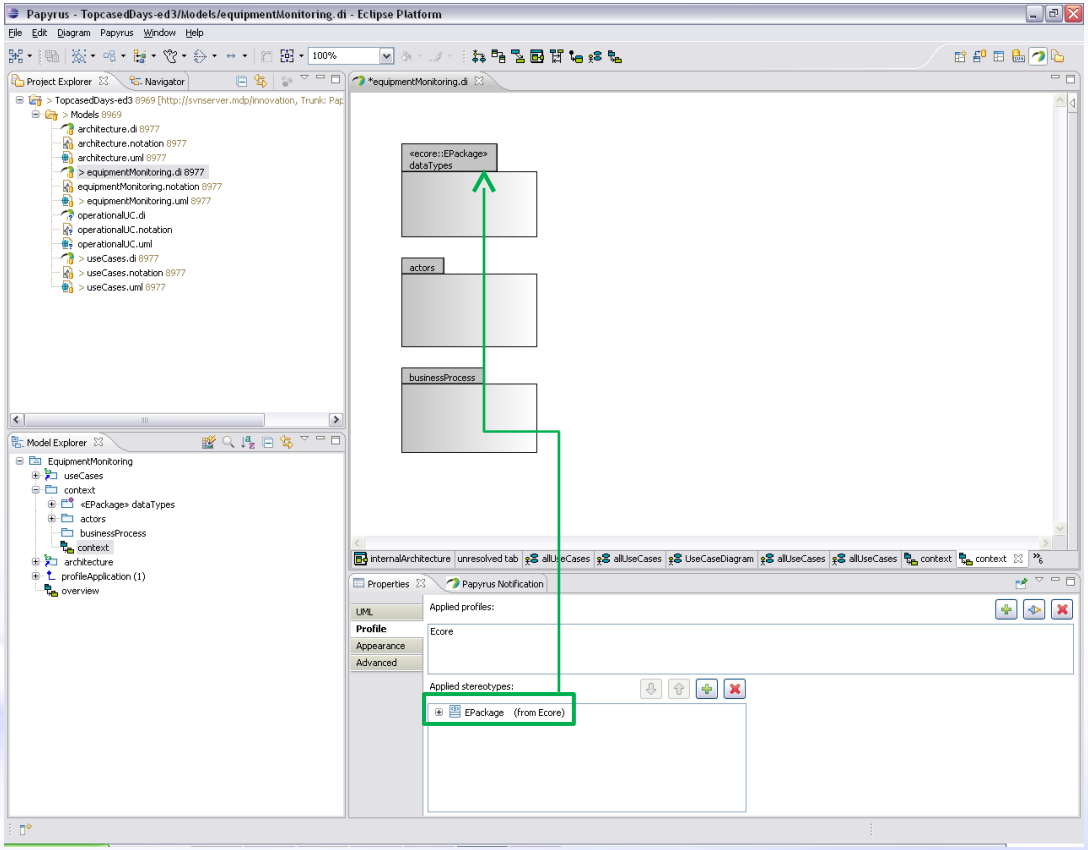
Apply UML profile

- Let's start applying Ecore profile on a model



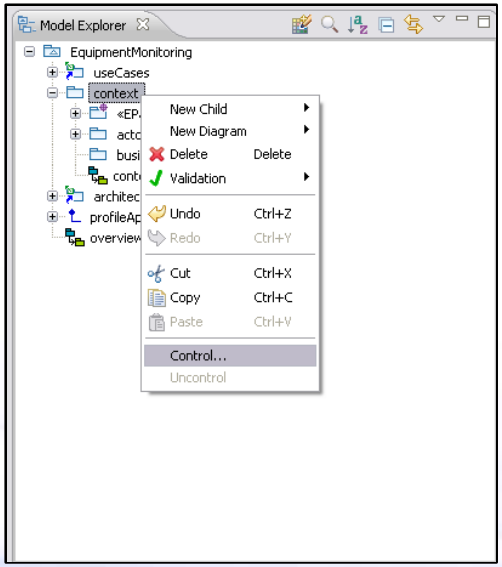
Apply stereotype

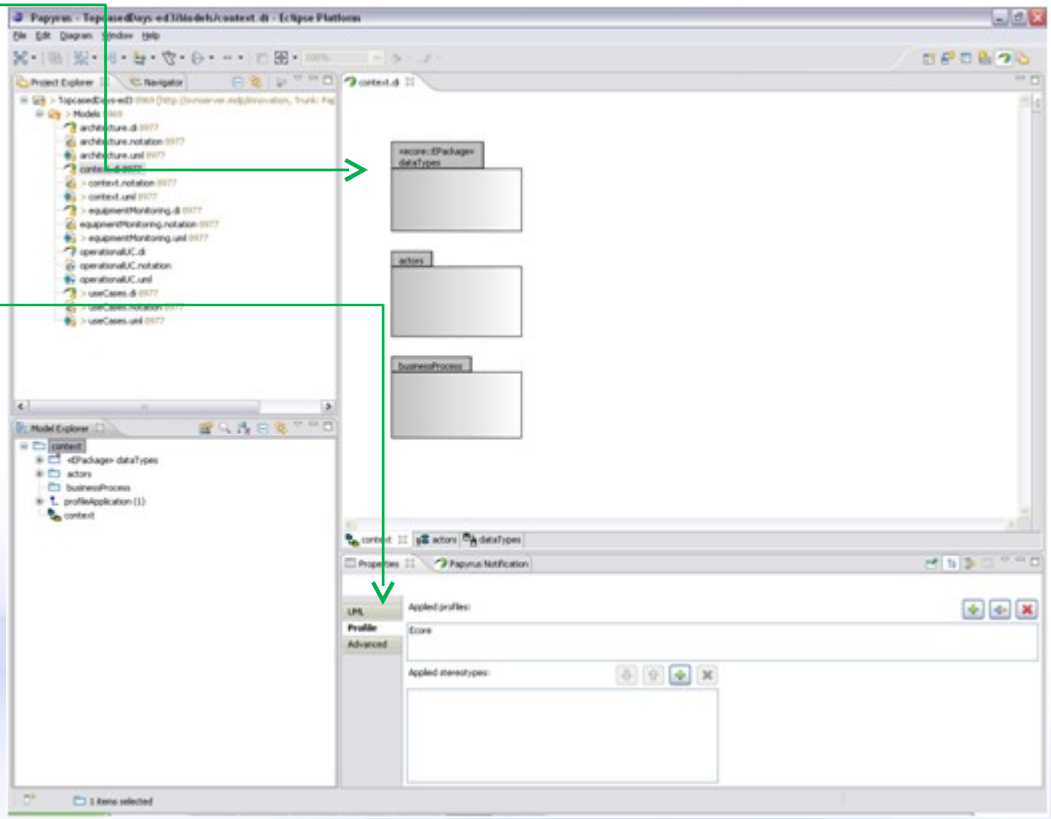
- Then apply stereotype on the element



Control model part with stereotypes

- Controlled model part now has profile applied
- Stereotype is still visible on the element





Manage UML profiles

- Duplicated profiles are unapplied when uncontrol action is performed
- The tool asks the user to load all the needed resources if policy is not suitable for profile duplication

Additional information

- All these features are coming with papyrus 0.8.0 release
- Have a look at the other tutorials
  - Papyrus tutorials page
- Visit MDT Papyrus home page
  - Papyrus home page