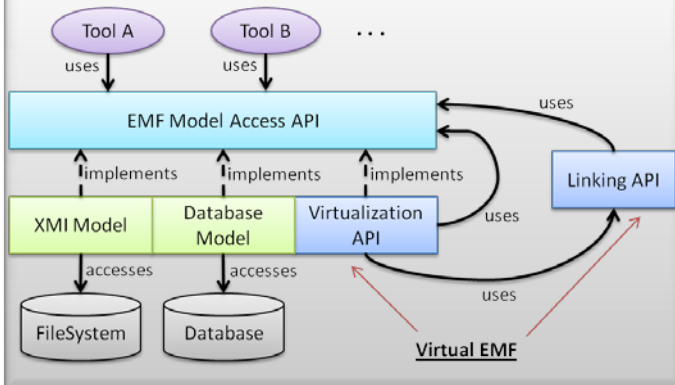


▶ **Virtual EMF project website:** <http://code.google.com/a/eclipselabs.org/p/virtual-emf/>

## ▶ What is Virtual EMF ?

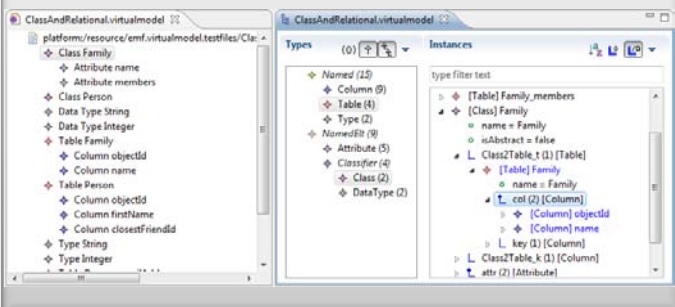
Virtual EMF is a model virtualization tool based on EMF that provides users with a transparent access point to handle and combine a set of interconnected models.

- Provides to tools/users the illusion of working with a regular model
- On-demand translation of input elements
- No data duplication



## ▶ Virtual EMF Properties

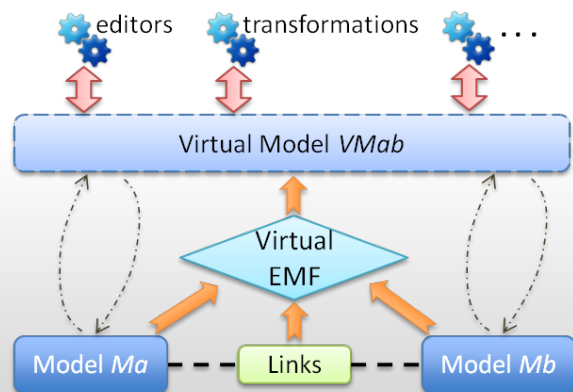
- **Interoperability:** Virtual EMF models can be exchanged and used by any EMF-based tool (e.g. editors, transformations, etc.)
- **Synchronization:** model updates are automatically propagated between virtual and virtualized models (elements)
- **Faster creation time:** immediate (and only once) generation of virtual models. No complex modeling operations (e.g. transformations)
- **Less memory usage:** as virtual models hold no concrete data, no extra memory is required



## ▶ Model Composition / Linking

- Complex systems -> **heterogeneous, numerous, and large** models
- **Overlapping** and **interrelated** models
- Different **abstraction levels**
- Various **viewpoints / perspectives**
- Need for generating a more **usable** and **unified view**
- Lack of **synchronization** between related models

## ▶ Virtual Models



*"a model whose (virtual) elements are proxies to elements contained in other models".*

## ▶ Virtual EMF Main Features

- **View** and **edit** a set of models simultaneously as a single one
- Create **references** between elements in different models and **navigate** them as normal internal ones
- **Filter** elements according to given criteria
- **Merge** elements representing similar concepts
- **Integrate** virtual models with any existing EMF-based tool
- Several **application scenarios:** model composition, model traceability, model weaving, model versioning, model synchronization, model distribution, etc.