Eike Stepper

stepper@esc-net.de
http://www.esc-net.de
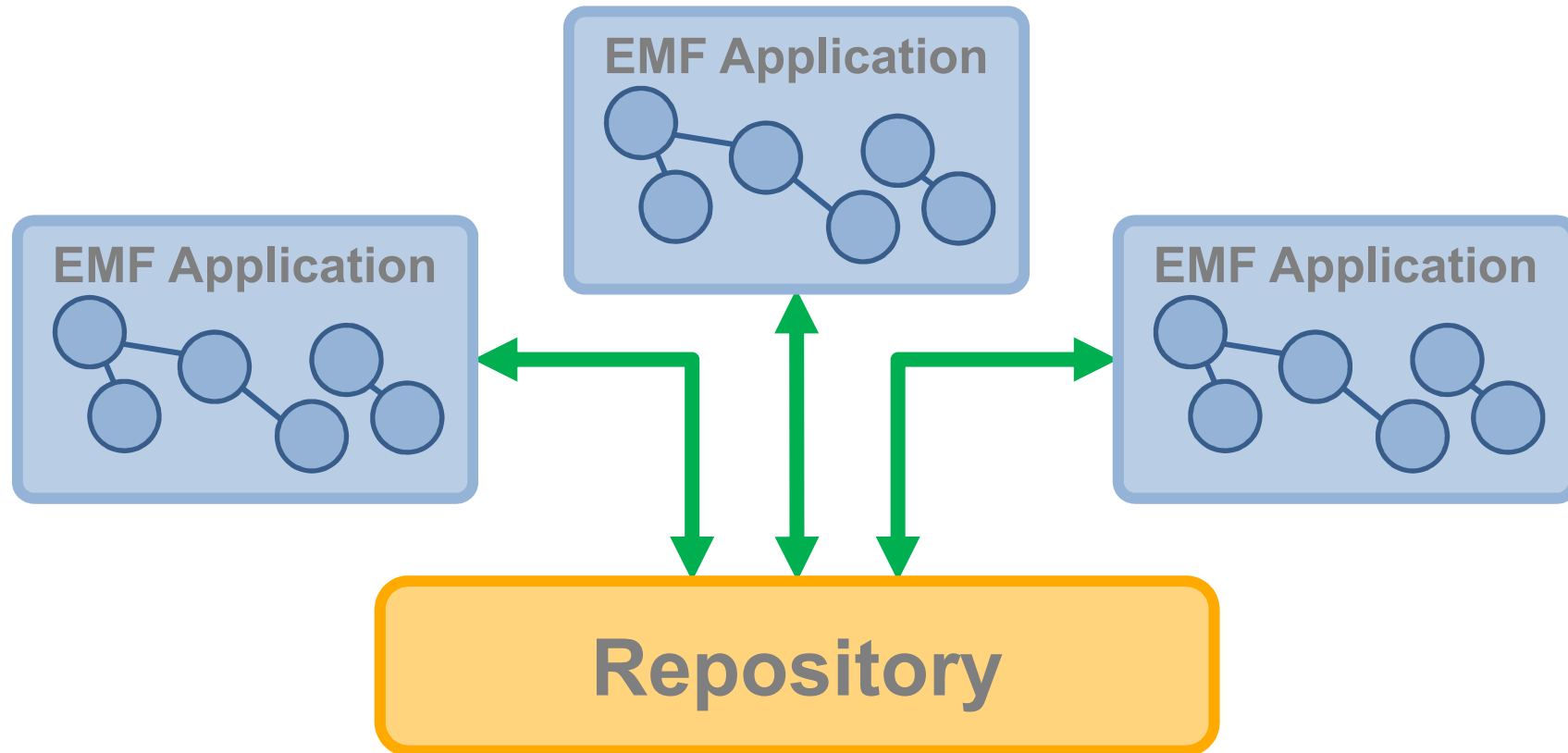http://thegordian.blogspot.com

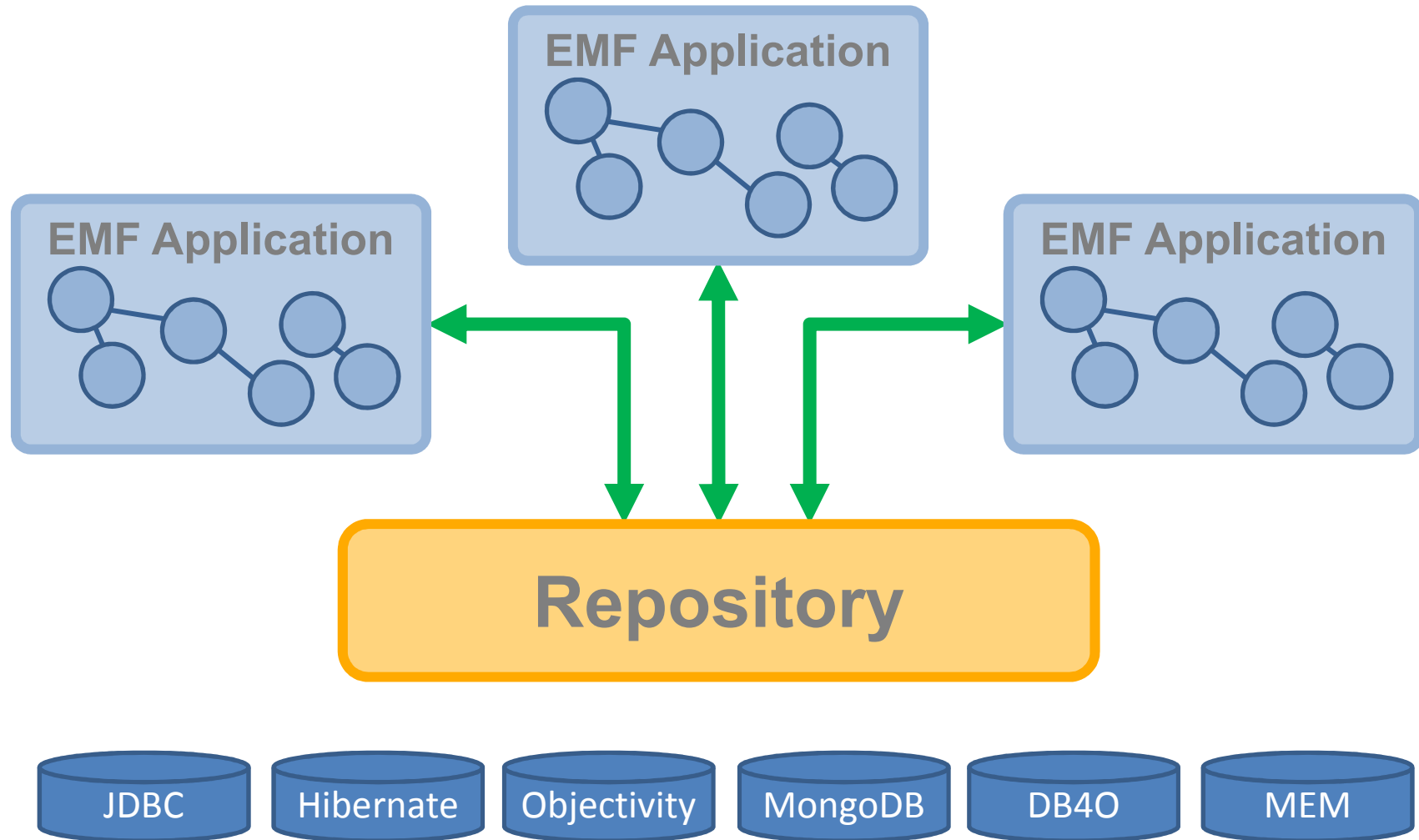**Berlin, Germany**

CDO

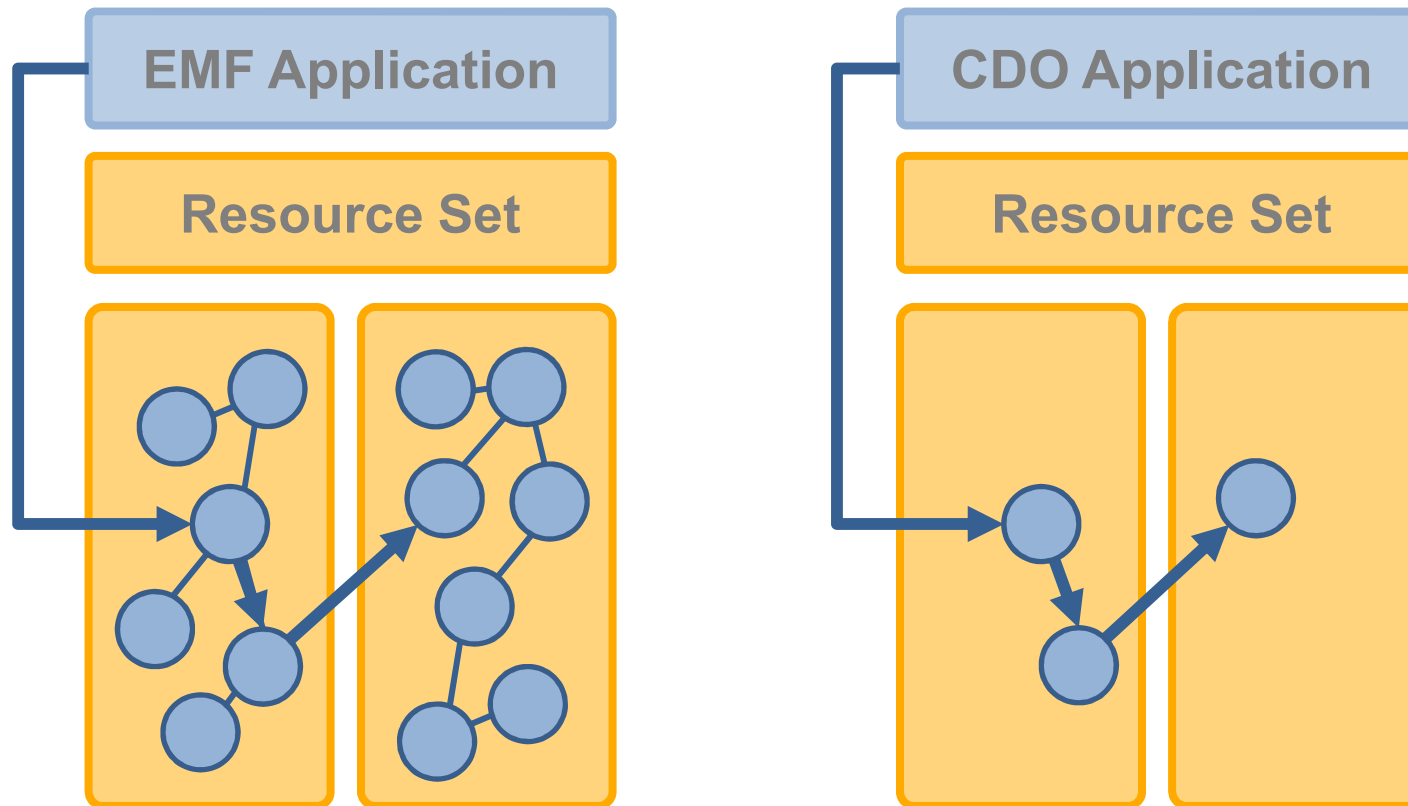## Orthogonal Aspects of Models
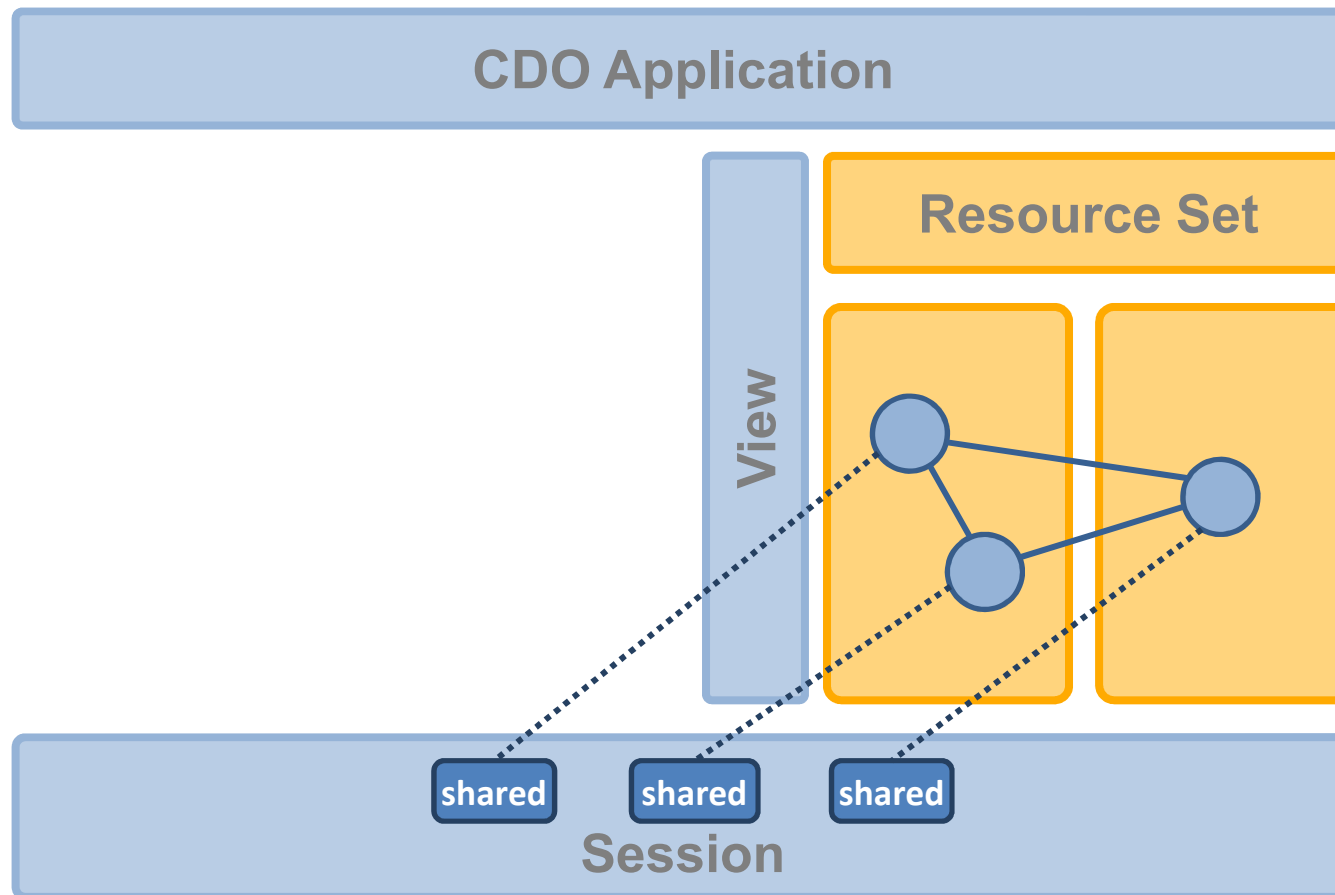
EclipseCon Europe, November 2, 2011

Distribution

Persistence

Lazy Loading

Automatic Unloading
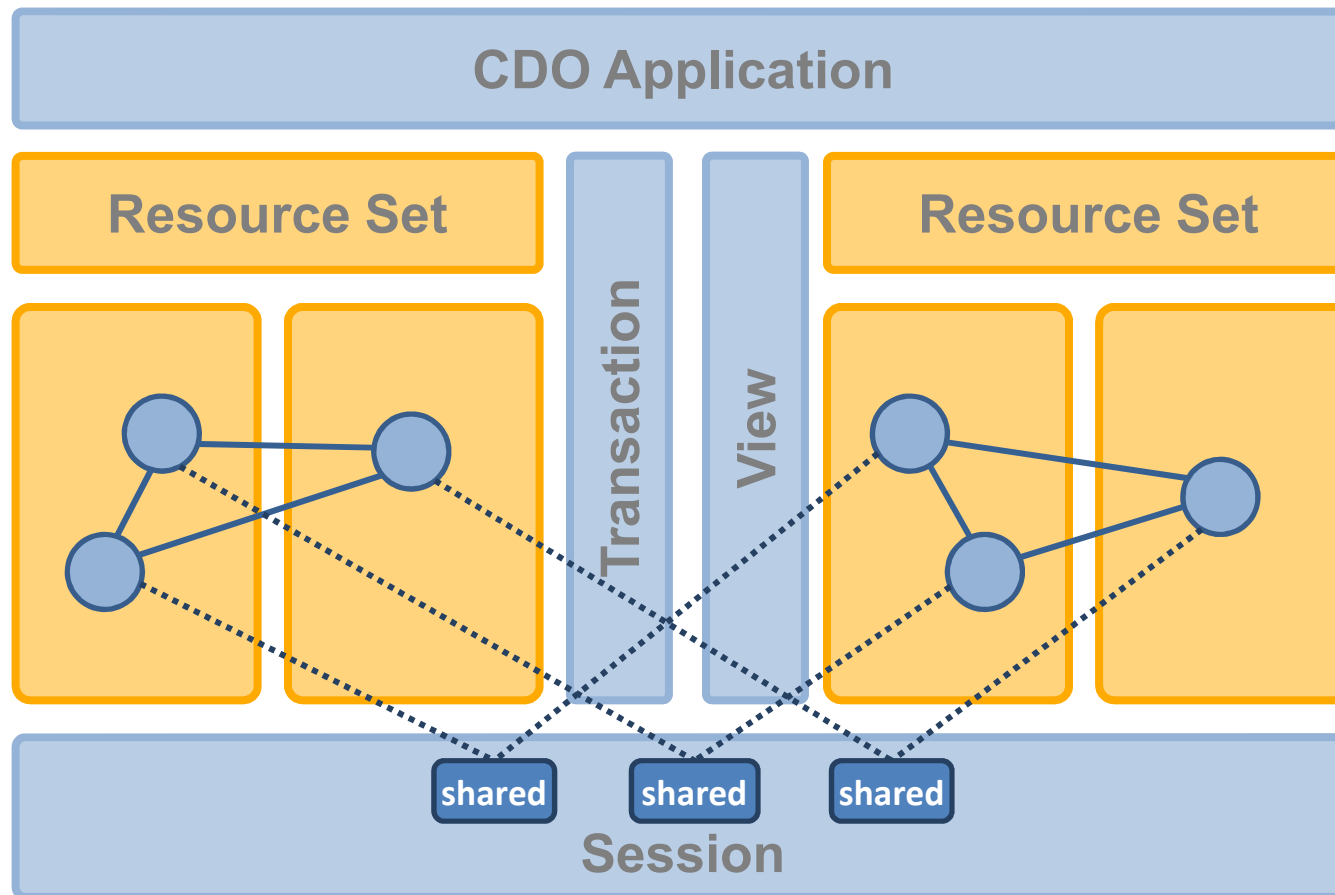
EMF Application

Resource Set

CDO Application
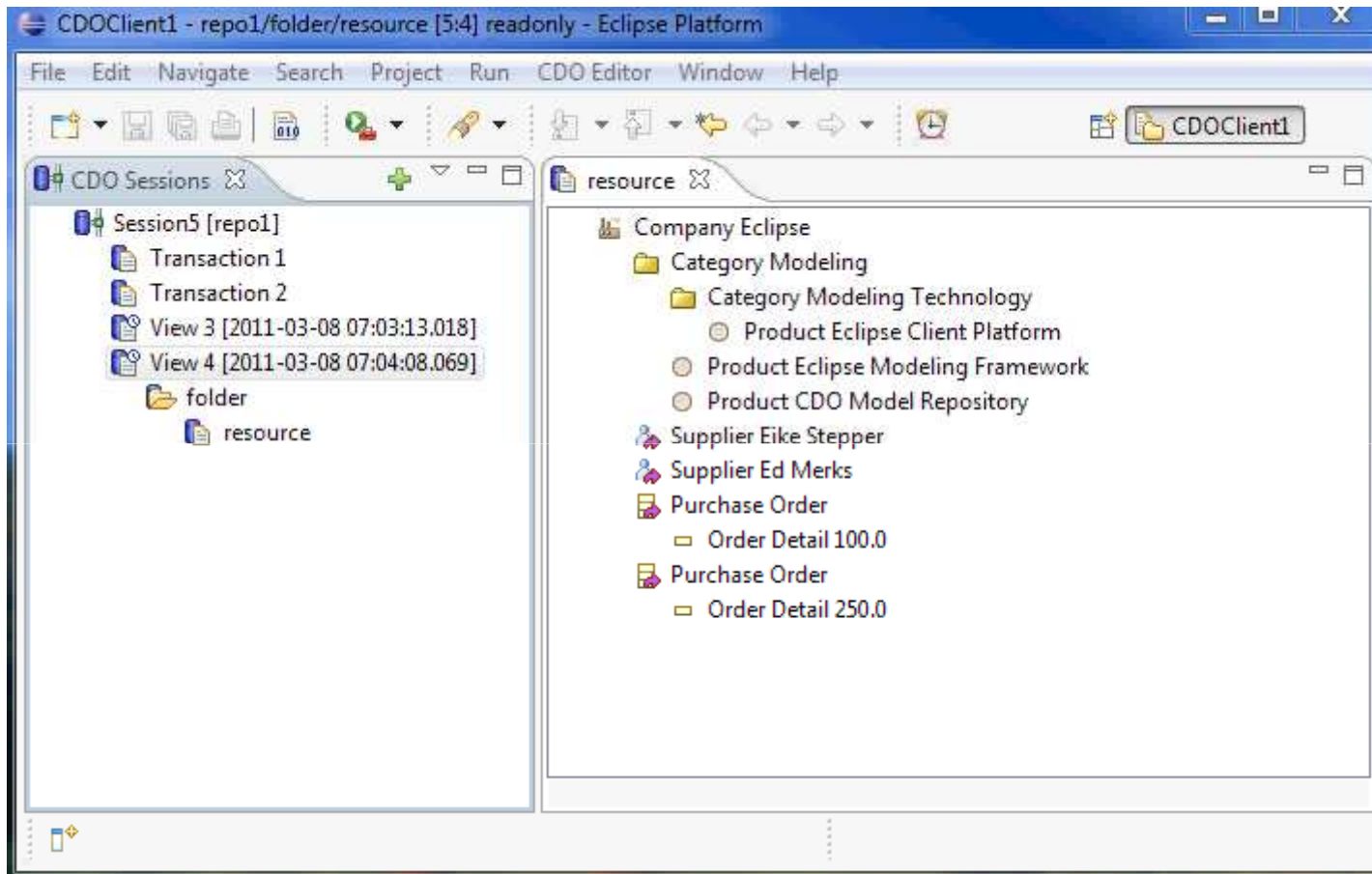
Resource Set
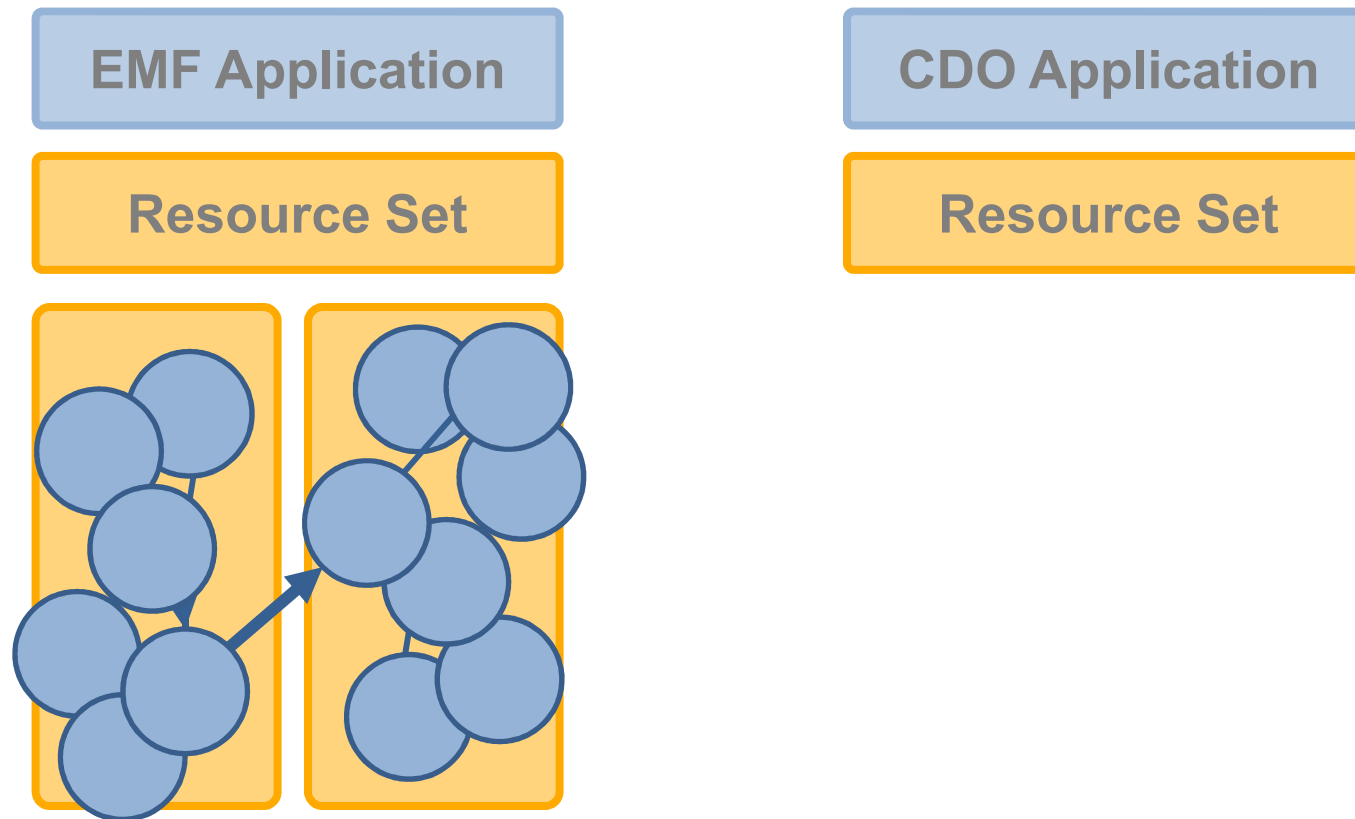
Read-Only Views
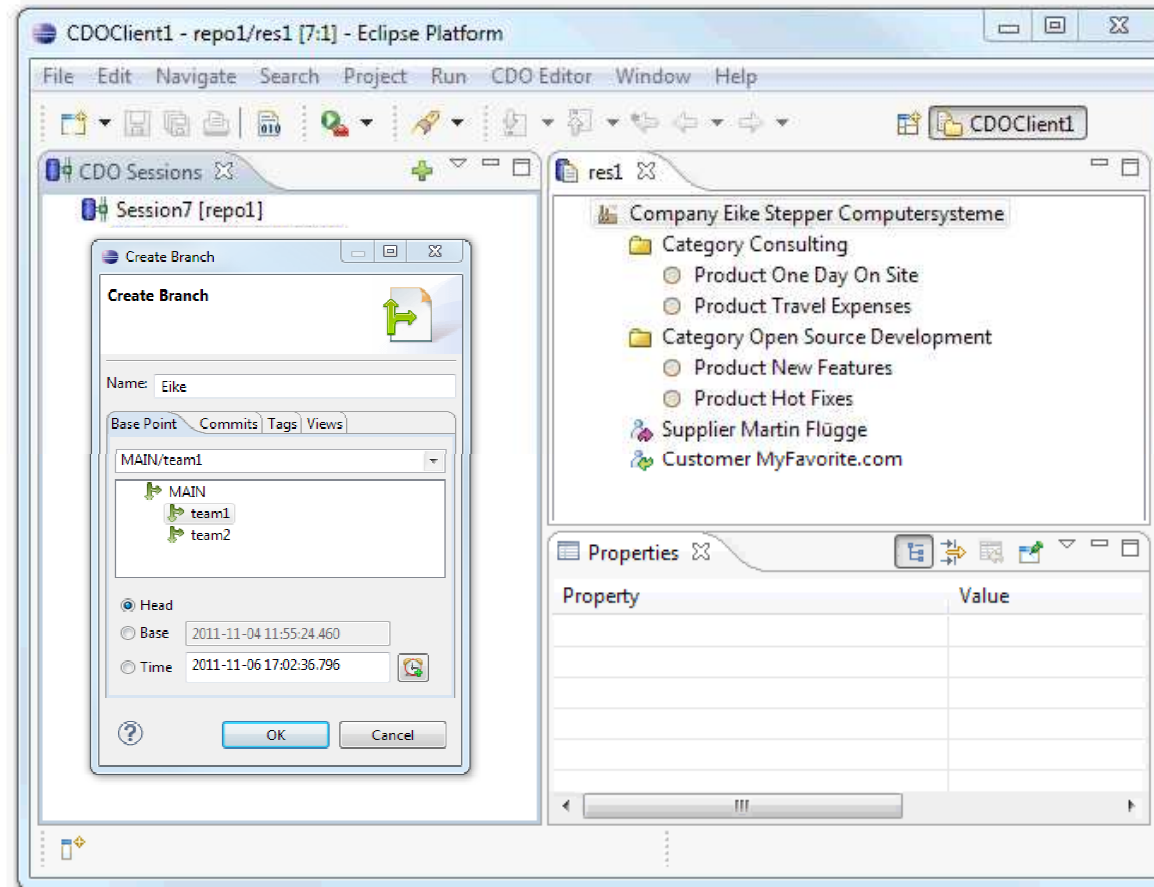
Transactions and Save Points

Concurrency and Integrity

- **Default Locking Strategy**
  - Optimistic write locks during commit

- **Optional Explicit Locking**
  - Pessimistic read and write locks
  - Lock escalation
  - Long lasting write reservations

- **Referential Integrity**
  - Stale reference prevention
  - Containment cycle prevention

Auditing

Branching

Merging

```
CDOBranch branch =
    branchManager.getBranch("MAIN/team1");

CDOTransaction tx = session.openTransaction();

tx.merge(branch.getHead(),
            new DefaultCDOMerger());

tx.commit();
```
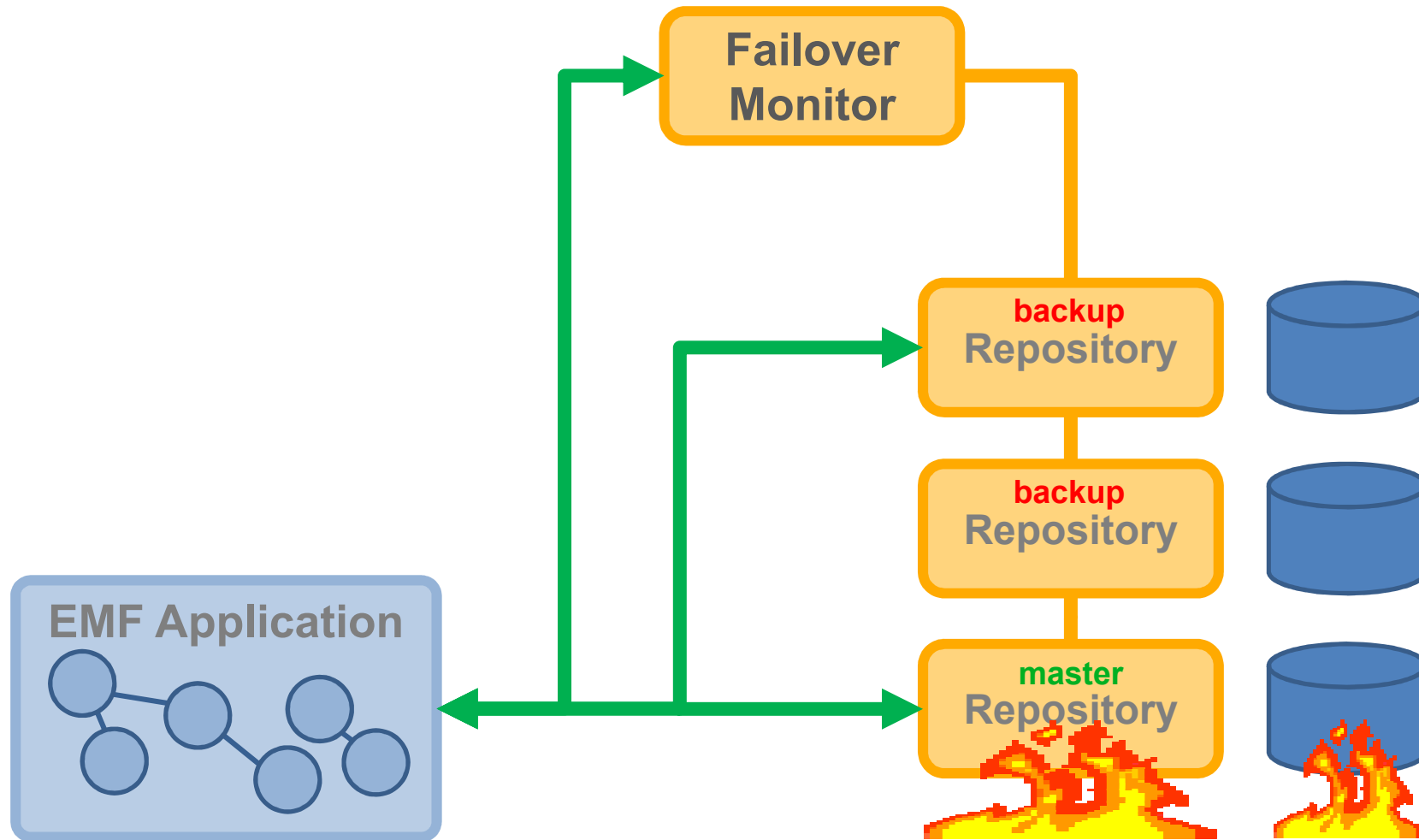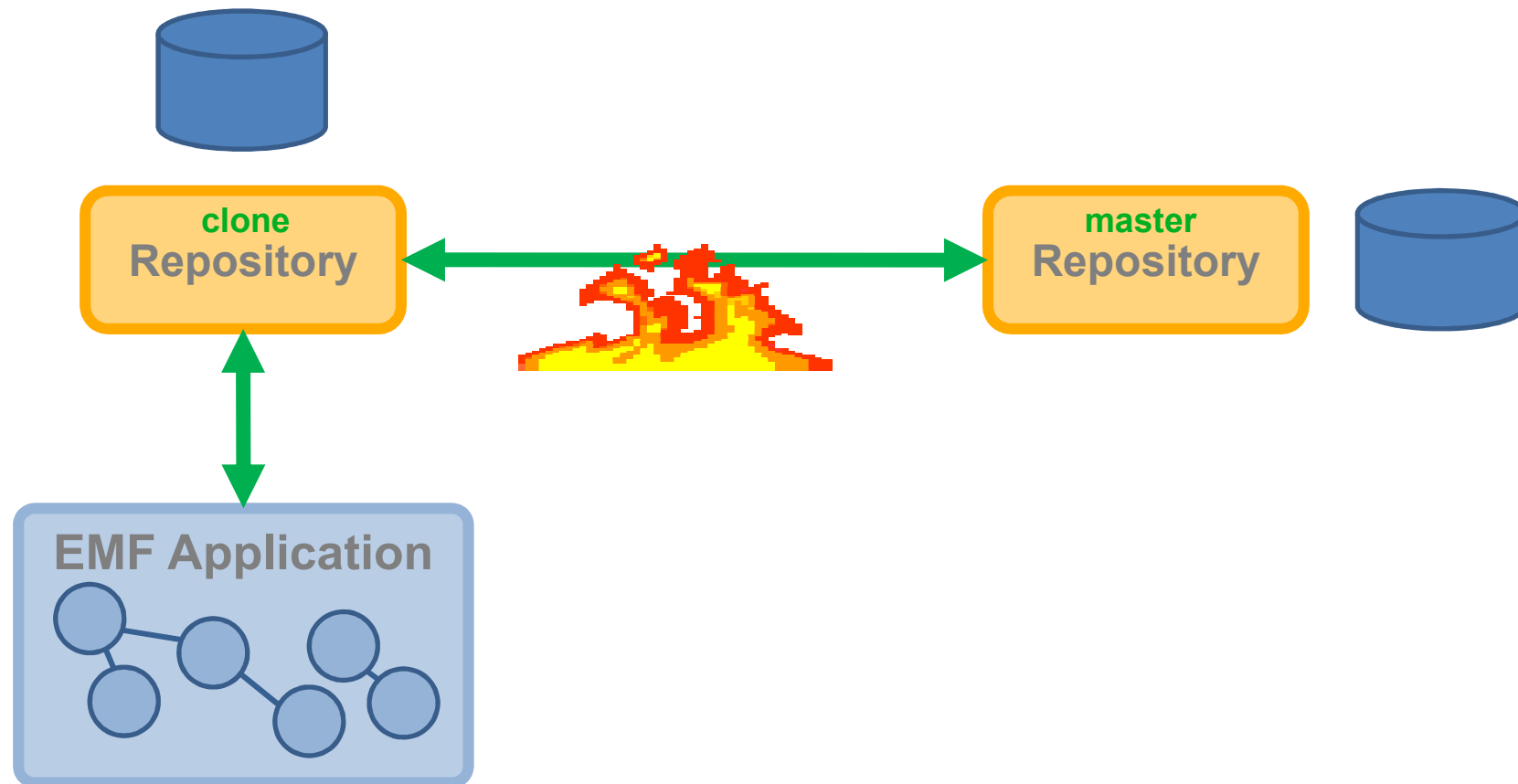
Querying

```
CDOView view = session.openView();
CDOQuery query = view.createQuery("ocl",
    "self.books->collect(b : Book | b.category"));
Iterator<String> iterator =
    query.getResultAsync(String.class);
```
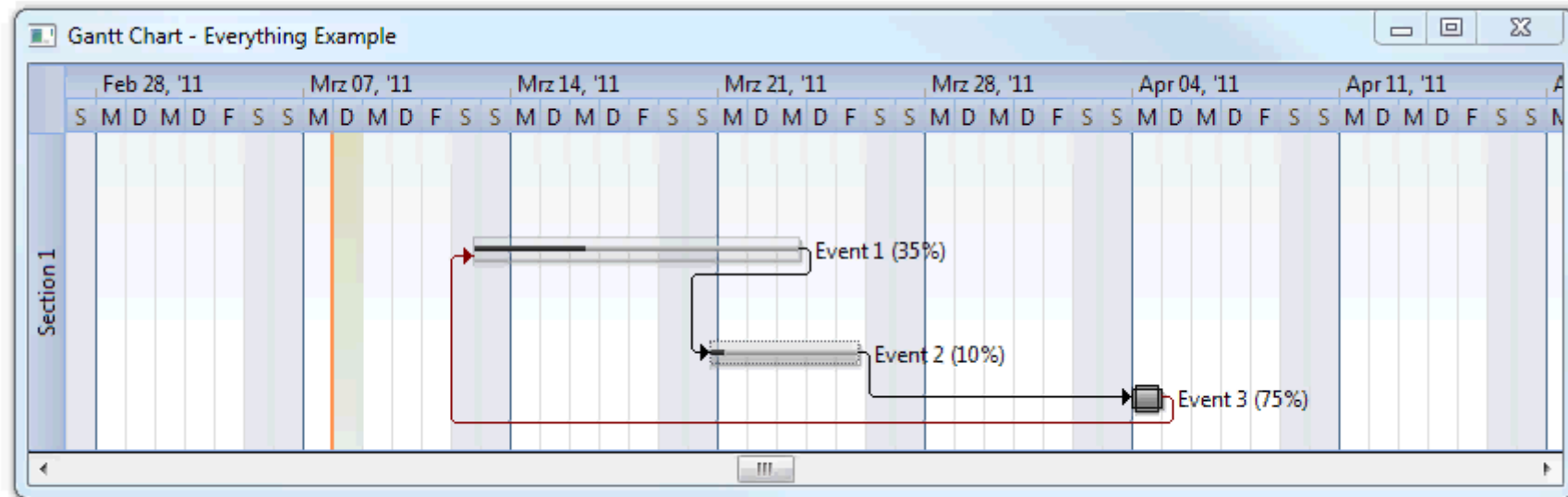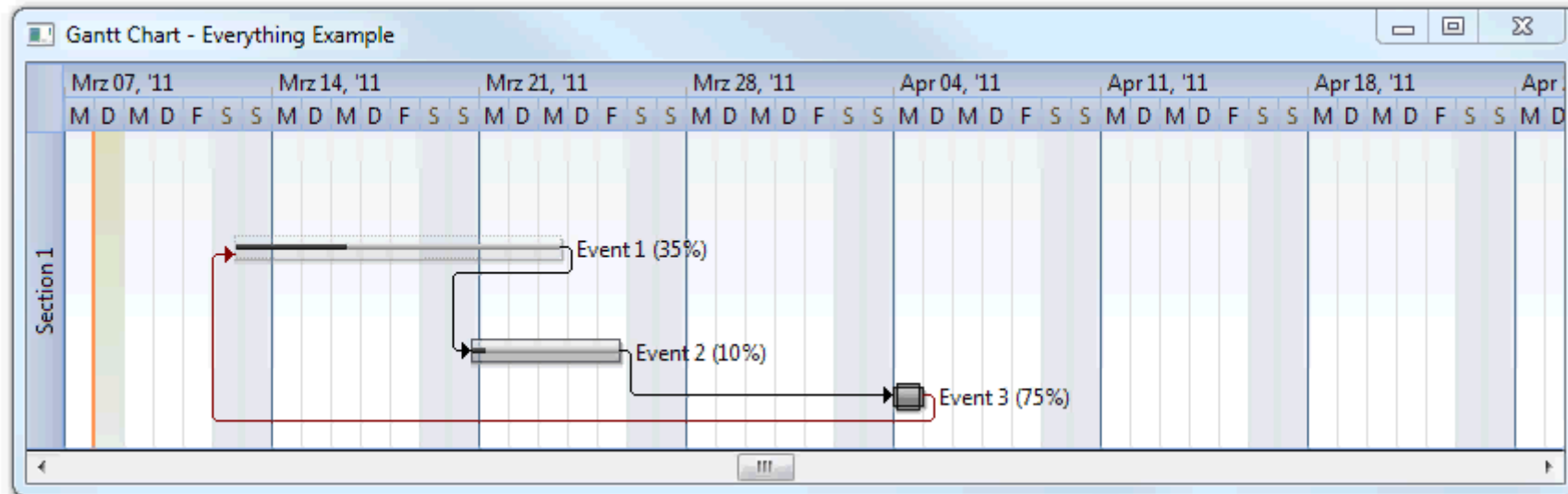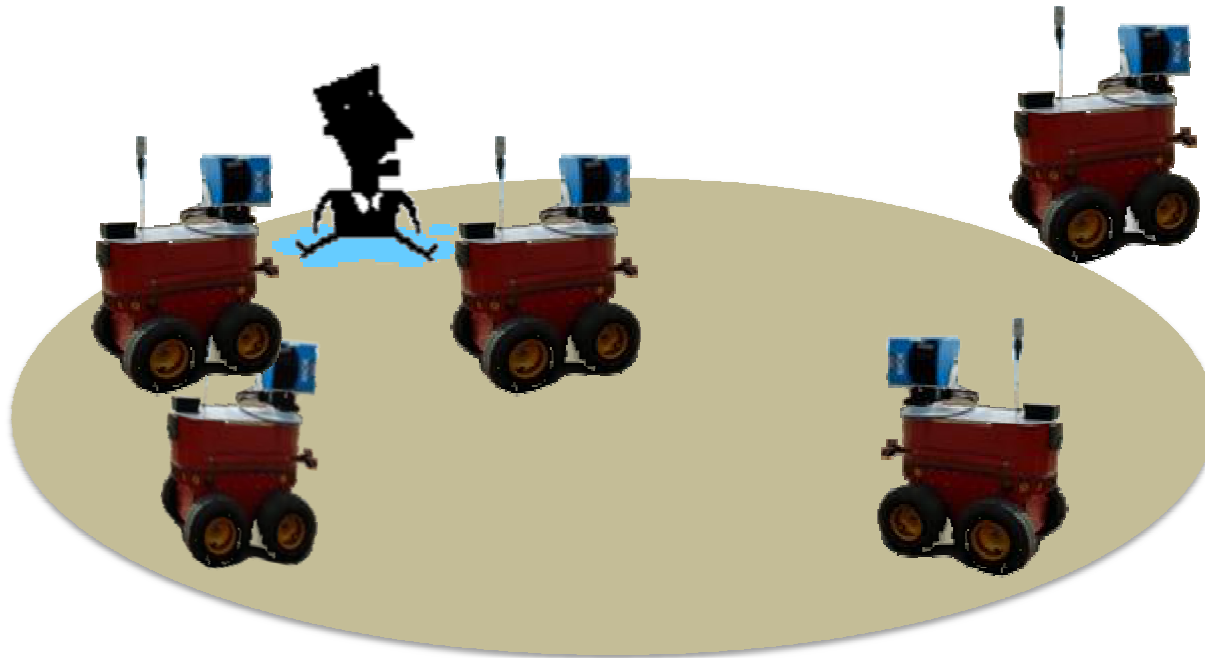
EMF Application

collect(b : Book

Repository

Failover Cluster
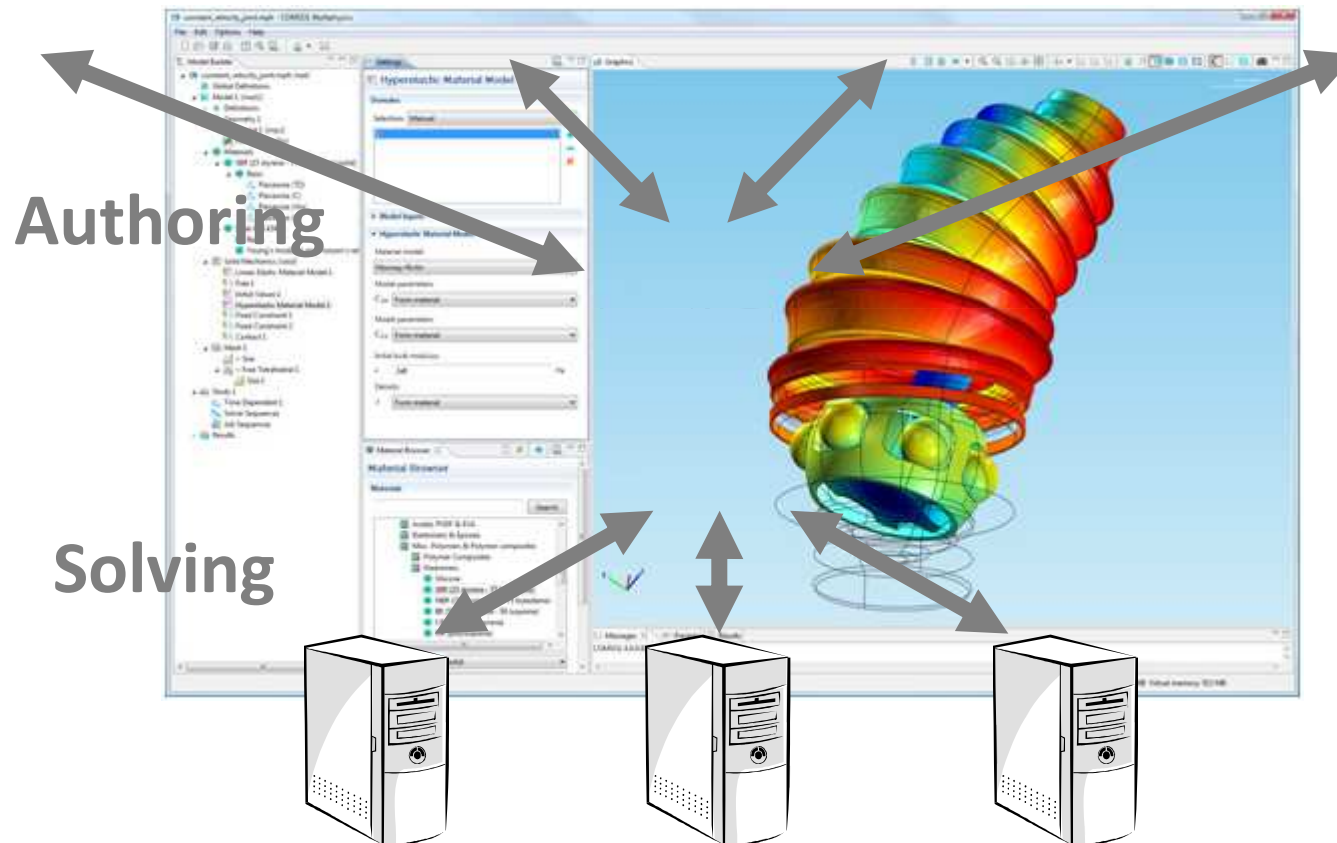
Offline Replication

NASA: Distributed Plan Editing

CSA: Autonomous Mobile Robots

Comsol: Multiphysics Simulation

Authoring

Solving

Photos taken from http://www.comsol.de/press/news/article/648

UBS: Tool Landscape Vision
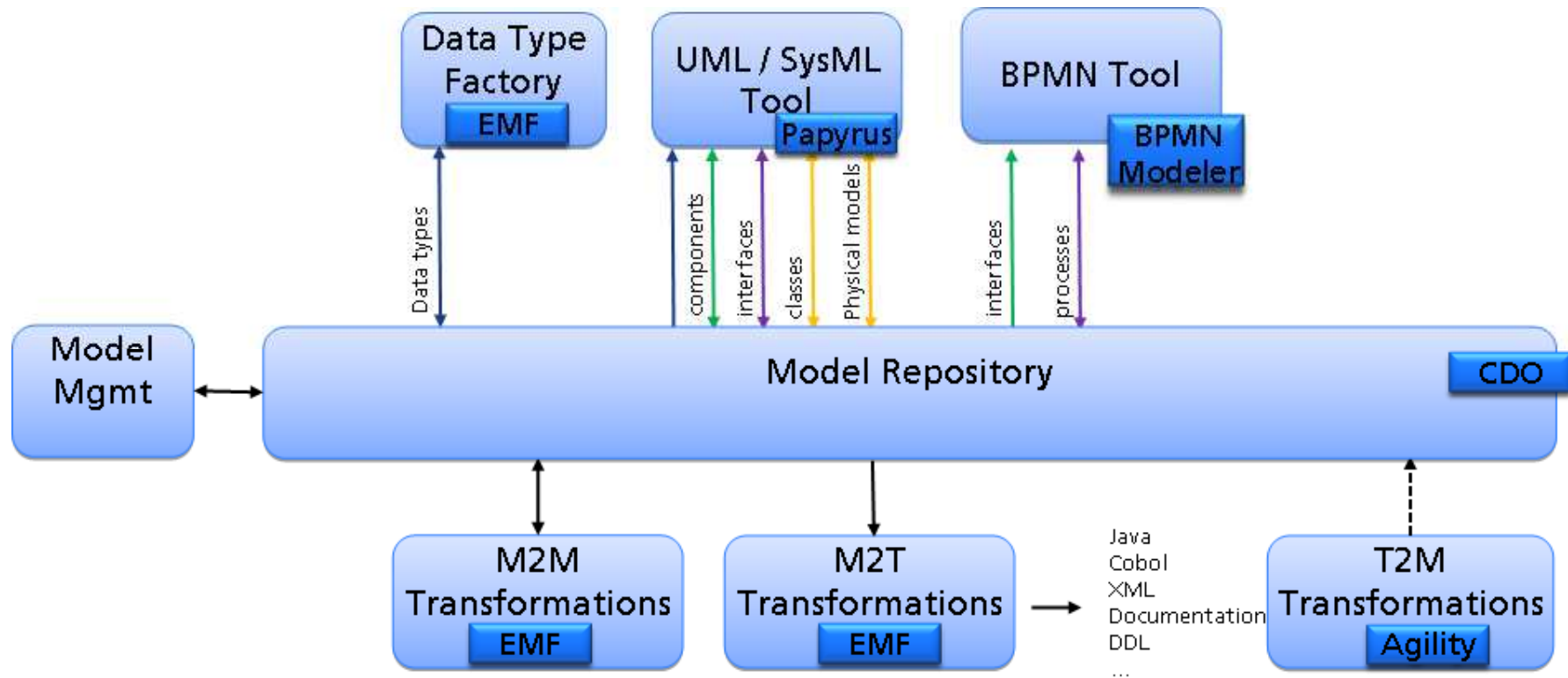
More Success Stories

- **RUAG: Homeland Security**
- **Thales: Systems Engineering Modeler**
- **Obeo: Obeo Designer**
- **NoMagic: MagicDraw + Team Server**
- **Paranor: Xtext Builder Optimization**
- **Benchmark Consulting: Software Modernization**
- **Open Canarias: Transforms of Cobol ASTs**
- **RBCCM: Software Provisioning**
- **WIPFLi: Product Model Workbench**
- **Bombardier: Railway Station Designer**
- **MobilePeople: Search Services**

CDO 3D
See you Friday
11:30 - 12:00
Room: Theater

Thank You