CDO
Orthogonal Aspects of Models
EclipseCon Europe, November 2, 2011
Distribution

EMF Application

EMF Application

EMF Application

Repository

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Lazy Loading
Automatic Unloading
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

```java
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

Repository
Failover Cluster
Offline Replication

The diagram illustrates the concept of Offline Replication. It shows a clone repository connected to an EMF Application, which then synchronizes with a master repository. The process involves transferring changes from the clone repository to the master repository, ensuring that the local application remains updated with the latest data from the central repository.
CSA: Autonomous Mobile Robots

Comsol: Multiphysics Simulation

UBS: Tool Landscape Vision

Model Mgmt

Model Repository

Data Type Factory
EMF

UML / SysML Tool
Papyrus

BPMN Tool
BPMN Modeler

M2M Transformations
EMF

M2T Transformations
EMF

T2M Transformations
Agility

CDO

Java
Cobol
XML
Documentation
DDL
...

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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