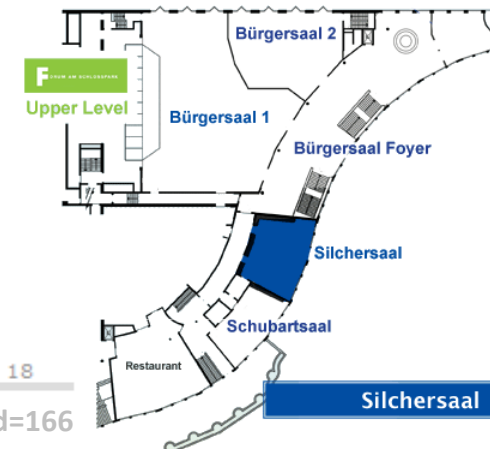**Eike Stepper**

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

ES-Computersysteme
Berlin, Germany

Ganymede Talks · Short
Wednesday, 15:25, 25 minutes | Silchersaal

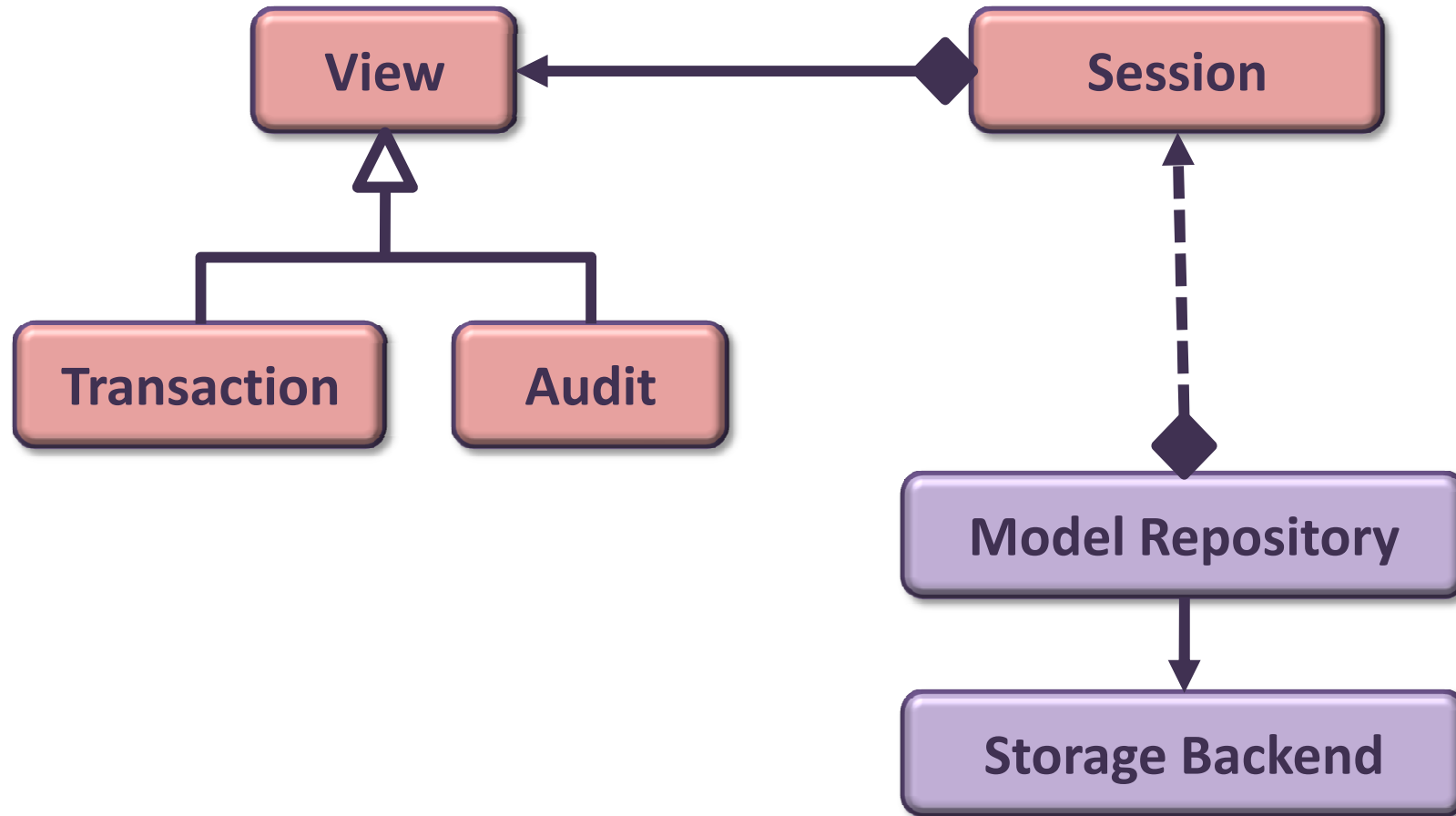7 · 8 · 9 · 10 · 11 · 12 · 13 · 14 · 15 · 16 · 17 · 18

http://www.eclipsecon.org/summiteurope2008/sessions?id=166

Bürgersaal 2

Upper Level

Bürgersaal 1

Bürgersaal Foyer

Silchersaal

Schubartsaal

Restaurant

Silchersaal
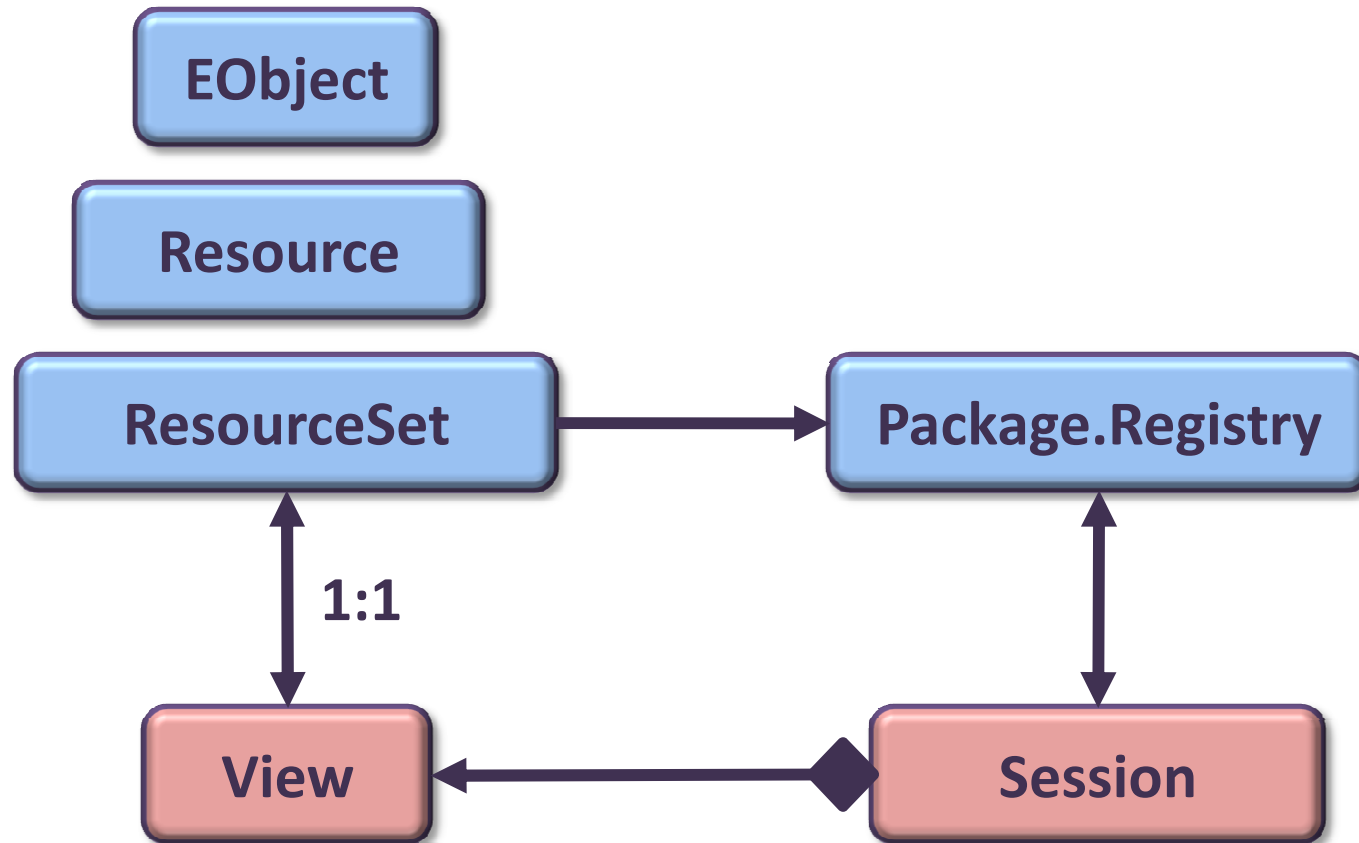
CDO Model Repository
An Update

175 Bugzillas since Ganymede

204890 Implement detach 213369 Exception handling 248011 ProvideCDOID should not change the state of the object 248771 CDOObject id, state, view and revision are not properly updated after CDOResource.delete() 215688 Create save points 247382 ReferenceChunk isn't working with add/remove of list (CDOReferenceProxy) 248296 Manage the "isLoaded" property of CDOResource 248915 Resources fetched using CDOViewImpl.getResource(CDOID) not added to ResourceSet 250757 Persisted objects keeps references to detached objects through deltas 201366 Channels are messed up in remote connector 208689 Add resource queries 214487 [DB] Use prepared statements if appropriate 216586 Provide optional pooling of store accessors 226778 Implement getURIFragment and getEObject 230387 [Hibernate] Issues with package reference 230832 Make remote invalidation configurable 233273 [QUERY] Develop Query mechanism 233277 Automatic link persistence objects together 233314 Add CDOTransactionHandler.rollingbackTransaction() 233490 Change Subscription 237093 [UI] Persisting dynamic models fails 238242 Enable API Tooling 238251 Improve package installation: required libraries 238300 [Hibernate] CCE in TeneoHibernateMappingProvider 238382 [Hibernate] Nested ID jar should be built automatically 238410 [Hibernate] ID Library is inconsistent 238414 Merge simon_merge_238414 to HEAD 238567 [Hibernate] Hibernate session not set in thread context when reading a stored object 238702 Automate workspace installation 238822 Substitute nested JDBC jars by package imports 238889 [Hibernate] Hide internal code 238963 [Hibernate] Resource is empty after closing and restarting eclipse 239036 [Hibernate] Problem with CDOIDHibernateImpl.equals() 239046 [Hibernate] Leakage problem 239215 UnsupportedClassVersionErrors in PackageRegistryTest (R1_0_maintenance only) 239677 Adjust the build for un-nested p3rd party jars 240287 [Migrator] CDO.MF is put into the source, not the destination project 240343 [Hibernate] Exception: No annotated model element present for ISingleRefContainer for type EClass has its epackage been registered with Teneo? 240812 cdoResource() is not updated if containment changes 241122 Develop Template Tooling 241463 Make timeout in Connector.openChannel(IProtocol protocol) configurable 241464 Make timeouts in read-access requests configurable 241793 Provide screencast (create-a-model) 242349 Net4J PostgreSQL DBAdapter 242727 [DB] Error in MappingStrategy when reading resourcepath by ID 243152 [Documentation] PROP_SUPPORTING_REVISION_DELTAS undocumented 243279 Add caching properties to CDOSessionConfiguration 243282 java.lang.IllegalStateException with MEMStore 243287 Implement shortcut for transaction.getObject(object.cdoId()) 243310 NPE during Transaction.getObject(id, false) 243720 [Hibernate] Create HibernateStoreFactory 243860 provide a workspace setup (for CDO development) that works on linux, too 243987 Decouple Signal from IChannel 244006 Decouple IConnector from IManagedContainer 244029 Challenge Negotiator should throw an SecurityException if login failed 244801 Export resource to XMI 245016 Prevent subpackage read in CDOTransaction and add antlr plugin to runtime 245356 CDOReadIndications should not get IStoreReader 245654 Provide a "Tweak Performance" tutorial 245794 Provide memory sensitive revision cache 245795 Remove unnecessary traversals in CompletePackageClosure 245817 Fix for 245356 has broken DBStore.repairAfterCrash(*) 245944 Make MEMStore more configurable 245947 Provide a two level revision cache 245950 Change the default revision cache to TwoLevelRevisionCache 245956 [UI] Load resource in CreateResourceAction if it already exists 245966 CDOServer.product doesn't work out of box on OS-X 246442 ArrayIndexOutOfBoundsException when importing resoruces 246454 Optimize transfer of Package URIs 246456 NullPointerException in the revision cache 246465 [PERF] Optimize CDOTransactionImpl.AnalyzeNewPackage 246619 Support addition/removal of many resources 246620 Error occurs when getOrCreateResource is called 246622 CDOStore.set doesn't affect variable correctly (Could cause memory retention) 246630 Shouldn't override hasProxies and use default behavior in CDOObjectImpl. 246705 Support containment proxies 246844 Implement Resource.delete() 246899 Override CDOEditorInput.equals(), CDOSession.equals() and CDOView.equals() 247117 Remove NOOPStore 247143 Add detach object handling to CDOTransactionHandler 247174 [POLISH] Remove uniqueResourceContents 247227 [POLISH] Remove the CDOWeaver 247427 Explicit locking 247428 Prefix for EClass names in DBStore 247518 [DB] Implement DBStoreAccessor.detachObject(CDOID id) 247709 [Hibernate] Make it possible to override standard Teneo extensions 247764 [PERF] ModelUtil.getCDOFeature(eFeature, packageManager) 247795 [POLISH] Remove TransientContents list from CDOResourceImpl 247817 Develop configurable test bed 247960 [Hibernate] Problem with TeneoHibernateMapping on Apache Derby 247978 Feature ID not set when creating dynamic eClass with attributes 248017 Provide a CDOSession.setInitialReferenceChunkSize() 248062 Refactor CDOView.setLoadRevisionCollectionChunkSize 248112 ImportPackage missing in org.eclipse.emf.cdo.server.hibernate.teneo 248117 [QUERY] Give queries the ability to respect the current view 248124 CDOView.hasResource() is not aware of deleted resources 248134 Infinite loop found in org.eclipse.emf.cdo.server.internal.db.ClassMapping.java 248273 Deactivate Session when SessionManager is deactivated, CloseView in Session.doDeactivate 248325 Support CDOAudit.setTimeStamp() 248372 EMFUtil.ePackageToString(..) removes EPackage from its Resource 248515 IStoreReader isn't released for a query (example queryResources) 248588 PassiveUpdate = false doesn't detach object if refresh. 248589 SyncRevisionRequest/Indication needs to transfer the timestamp for each objects 248689 [Hibernate] FileHibernateMappingProvider unable to load declared mappingFile 248757 CDOViewImpl.deregisterObject() is broken 248997 Protect closed sessions and their views against illegal usage 249088 Use of qualified names property causes DB Exceptions due to truncation and table exists 249154 CDOResource.eAdapters should call super.didAdd() and super.didRemove() 249278 Provide interceptors at the server-side to run validation, filtering, ... 249282 Audit does not inhibit instantiation with timestamps prior to repo creation 249296 Provide the userID also for IChannel through IUserAware 249297 Provide the userID also for CDOProtocolSession through IUserAware 249332 NPE due to missing protocol in SignalActor.<init> 249383 Dynamic models in the global EPackage.Registry are not committed 249536 Provide a public view lock to protect clients against remote invalidation 249579 Provide INegotiatorAware and ITransportConfigAware interfaces 249585 Make it easier to configure authentication 249847 Store resources in a hierarchical structure 249937 Add a method to the test framework to purge the server caches 249988 IHTTPConnector is present in 2 bundles! 250034 New testcases for Transient features 250036 Invalidation doesn't work for EMap Feature 250064 CDOPackageRegistryImpl should offer delegation 250343 ReflectUtil.getID should be synchronized (infinite loop) 250411 [DB] Create DB indexes for mapped tables 250466 Problem with ReferenceMapping and generalization 250809 Enhance the way stores express their capabilities 250817 Deadlock in LRURevisionCache 250845 Decouple CDOClientRequests from IChannel 250910 IllegalArgumentException: created > revised 251087 NPE in ChangeSubscriptionManager.isPending() while subscribing a pending TRANSIENT-by-removal object 251263 EOpposite reference are not updated when I detach an object from a resource.(it should contains EObject not CDOID) 251334 LRURevisionCache affect wrong revised number to revision 251461 CDOResource with root=true returns eResource()==null 251530 Use of qualified names property makes it more likely to hit db table name limits 251537 [DB] Enhanced ComplexTest test cases fail 251544 Instance of list are not the same for the following transition transient/new persisted/transient resulting strange behavior (NPE) 251562 Some cdo plugin.xml files have not been properly updated 251752 While committing, error in CommitIndicationTransaction.indicating doesn't stop the commit process 251753 [DB] DBStore with MySql to be added in the testing framework. 251864 [DB] ChunkReader not working with DBStore. 252115 Enable opening new channels on the same connector as a given channel 252118 SessionConfig 252147 [DB] cache miss on server leads to references not being read 252161 StackOverflow in CDOEditor.populateNewRoot() when sessino.packageRegistry contains a package not registered in the client machine 252163 Should CDOEditor allow the user to create CDOObjects instances? 252175 ServerInfo throws NPE in getDBID() for ModelElements of eresource.ecore 252214 NPE when calling audit.setTimeStamp() 252221 Provide proper RemoteException for signals 252311 [POLISH] Consolidate IStoreAccessor SPI 252362 session.refresh should not go through lock/thread invalidation 252420 Provide no timeout option for IConnector 252636 [DB] All DBStoreAccessors passivated to writers pool 252821 [UI] Hide missing local packages from "New Root" menu 252883 Objects not updated when CDOSessionInvalidationEvent is received 252909 [DB] NPE when trying to update objects 252982 [DB] exception when trying to commit changes 253010 [Query] Query should use the new exception handling 253049 Give the infrastructure of an IProtocol a parametric type 253054 [POLISH] Pass protocol and signalID in Signal constructor 253103 Revised revision for nothing when committing 253107 ResourceTest contains testcases related to Audit mode. 253664 [DB] Add JDBC connection wrappers 254489 [CDO] CDOTransaction.postCommit not adjusting the Transaction/View reference 255071 Session not removed from SessionManager when Channel goes down... 255094 [UI] Lock objects from CDOEditor (READ/WRITE) 255124 XATransaction doesn't release Accessor correctly 255337 [DB] Qualified table names still exceed db table limit 255395 [POLISH] Introduce InternalCDOSession, InternalCDOView, ... 213402 Support external references 213403 Support distributed transactions
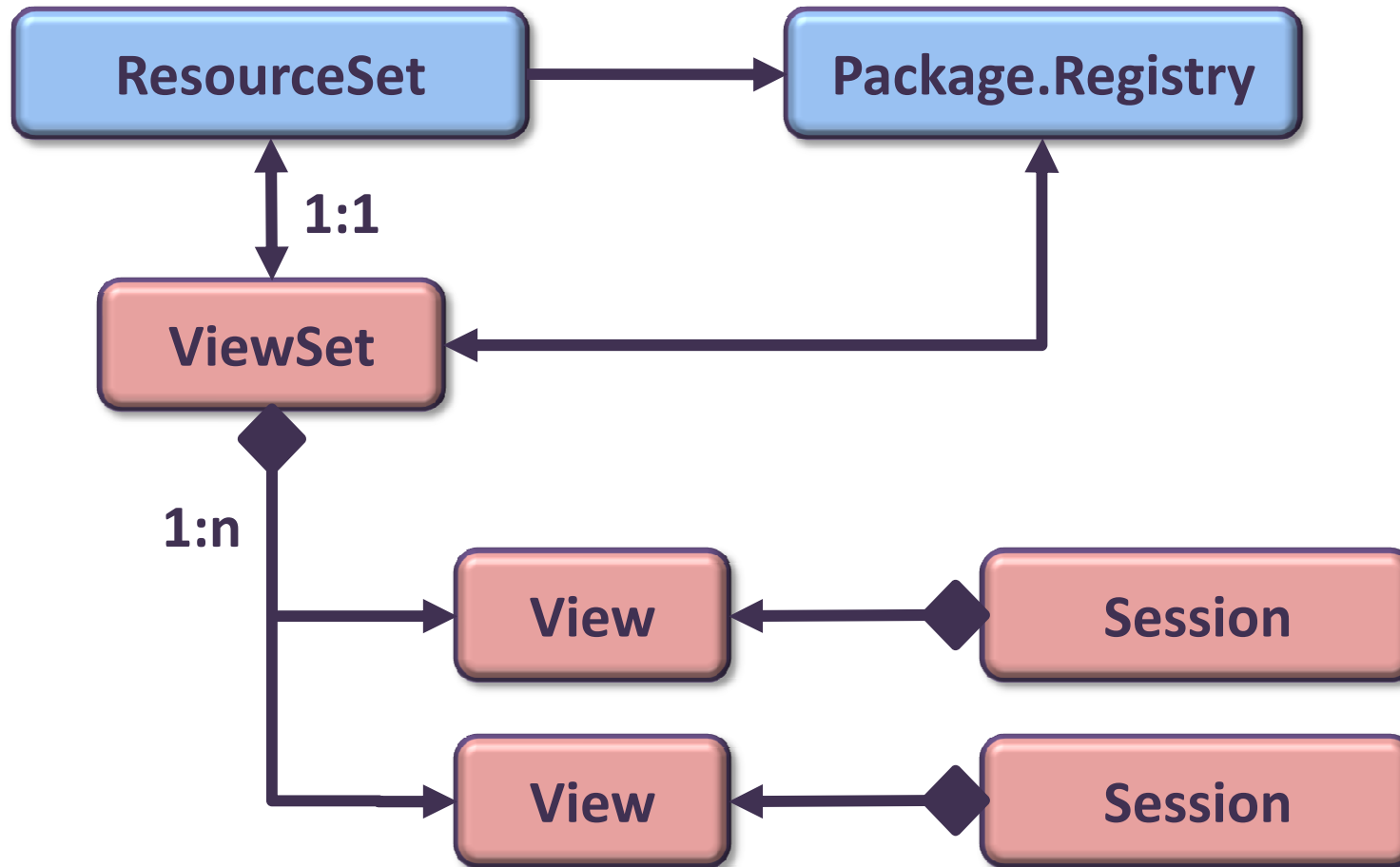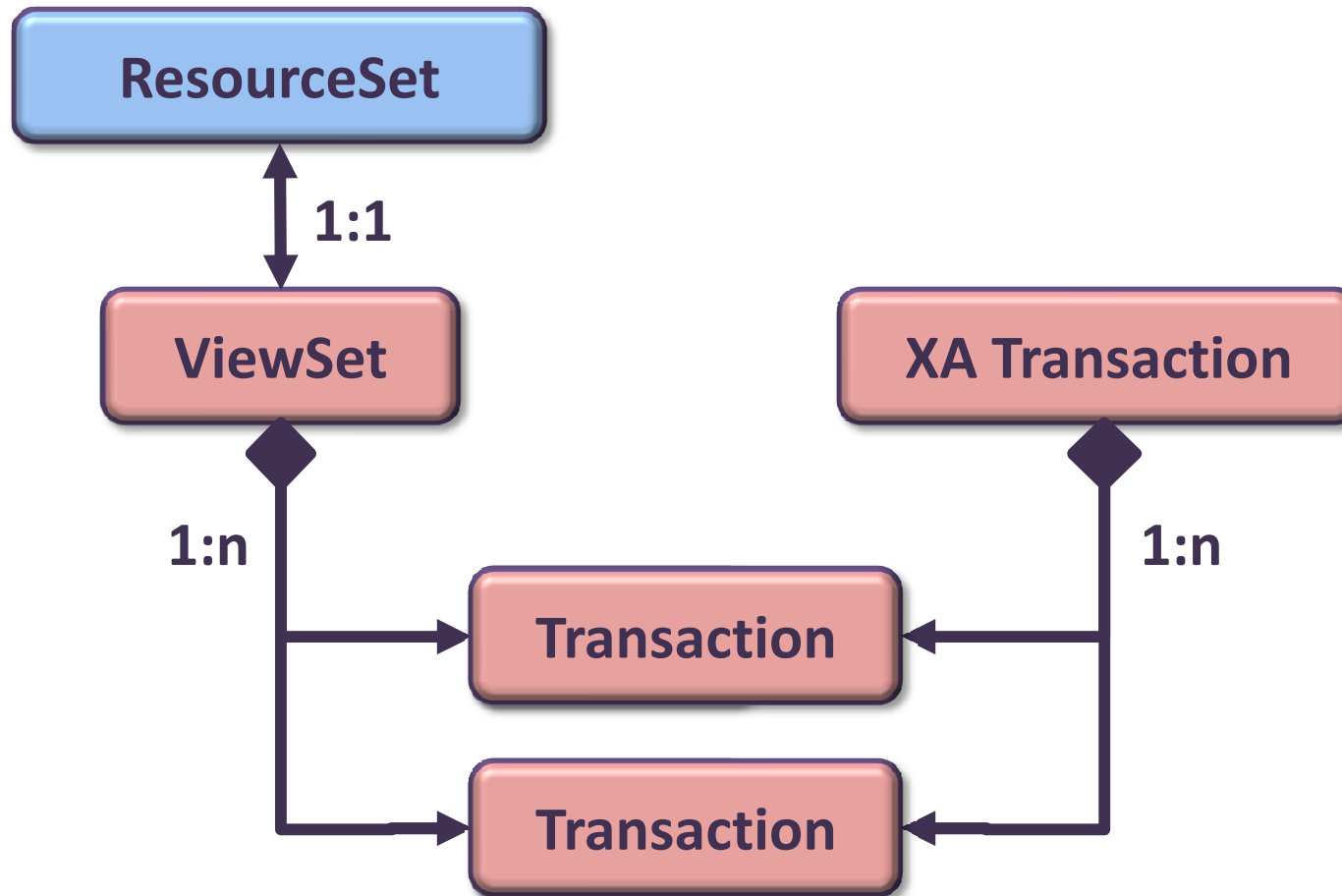
CDO Architecture

EMF Integration

EMF Integration

EMF Integration

CDO 2.0

ResourceSet

1:1

ViewSet

XA Transaction

1:n

1:n

Transaction

Transaction

Open a CDO Session

```java
public void testSession() throws Exception
{
  OMPlatform.INSTANCE.addTraceHandler(PrintTraceHandler.CONSOLE);
  OMPlatform.INSTANCE.addLogHandler(PrintLogHandler.CONSOLE);
  OMPlatform.INSTANCE.setDebugging(true);

  IConnector connector = (IConnector)IPluginContainer.INSTANCE.
     getElement("org.eclipse.net4j.connectors", "tcp", "localhost");

  CDOSessionConfiguration config = CDOUtil.createSessionConfiguration();
  config.setConnector(connector);
  config.setRepositoryName("repo1");
  config.setLazyPackageRegistry();

  CDOSession session = config.openSession();
  // ...
}
```

Structured Resources / Queries

```java
public void testStructuredResources() throws Exception
{
  CDOSession session = openModel1Session();
  CDOView view = session.openView();

  for (CDOResourceNode node : view.queryResources(null, "my", false))
  {
    if (node instanceof CDOResourceFolder)
    {
      EList<CDOResourceNode> subNodes = ((CDOResourceFolder)node).getNodes();
    }
    else
    {
      EList<EObject> contents = ((CDOResource)node).getContents();
    }
  }

  session.close();
}
```

Explicit Locking

```java
public void testExplicitLocking() throws Exception
{
  CDOSession session = openModel1Session();
  CDOTransaction transaction = session.openTransaction();
  CDOResource resource = transaction.getOrCreateResource("/my/resource");
  resource.cdoWriteLock().lock();

  resource.getContents().add(Model1Factory.eINSTANCE.createCompany());
  resource.getContents().add(Model1Factory.eINSTANCE.createCompany());
  resource.getContents().add(Model1Factory.eINSTANCE.createCompany());

  transaction.setAutoReleaseLocksEnabled(true);
  transaction.commit();
  session.close();
}
```

Save Points

```java
public void testSavepoints() throws Exception
{
  CDOSession session = openModel1Session();
  CDOTransaction transaction = session.openTransaction();
  CDOResource resource = transaction.getOrCreateResource("/my/resource");

  resource.getContents().add(Model1Factory.eINSTANCE.createCompany());
  resource.getContents().add(Model1Factory.eINSTANCE.createCompany());

  CDOSavepoint savepoint = transaction.setSavepoint();
  resource.getContents().add(Model1Factory.eINSTANCE.createSupplier());
  resource.getContents().add(Model1Factory.eINSTANCE.createSupplier());
  transaction.rollback(savepoint);

  transaction.commit();
  session.close();
}
```

Passive Updates

```java
public void testPassiveUpdate() throws Exception
{
  CDOSession session = openModel1Session();
  CDOView view = session.openView();
  CDOResource resource = view.getResource("/my/resource");

  session.setPassiveUpdateEnabled(false);
  for (EObject object : resource.getContents())
  {
    Company company = (Company)object;
    // …
  }

  session.refresh();
  session.setPassiveUpdateEnabled(true);
}
```

Change Subscriptions

```java
public void testChangeSubscription() throws Exception
{
  CDOSession session = openModel1Session();
  CDOView view = session.openView();
  view.setChangeSubscriptionPolicy(CDOChangeSubscriptionPolicy.ONLY_CDO_ADAPTER);

  class ResourceAdapter extends AdapterImpl implements CDOAdapter
  {
    @Override
    public void notifyChanged(Notification msg)
    {
      System.out.println("Modified remotely: " + msg.getNotifier());
    }
  }

  CDOResource resource = view.getResource("/my/resource");
  resource.eAdapters().add(new ResourceAdapter());
}
```

Query Framework

```java
public void testQuerySupport() throws Exception
{
  CDOSession session = openModel1Session();
  CDOView view = session.openView();

  String sql = "SELECT cdoid FROM Company WHERE name LIKE ${name}";
  CDOQuery query = view.createQuery("SQL", sql);
  query.setParameter("name", "Foo%");

  CloseableIterator<Company> result = query.getResultAsync(Company.class);
  for (Iterator<Company> it = result; it.hasNext();)
  {
    Company company = it.next();
    System.out.println(company);
  }

  session.close();
}
```

Eike Stepper

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

ES-Computersysteme
Berlin, Germany

Thank You

http://wiki.eclipse.org/CDO