

## EDIT - bug #7105

### potential dangerous use of factory.openSession()

12/04/2017 11:10 AM - Andreas Kohlbecker

<b>Status:</b>	New	<b>Start date:</b>	
<b>Priority:</b>	New	<b>Due date:</b>	
<b>Assignee:</b>	Andreas Müller	<b>% Done:</b>	50%
<b>Category:</b>	cdmlib	<b>Estimated time:</b>	0:00 hour
<b>Target version:</b>	Reviewed Next Major Release	<b>Found in Version:</b>	
<b>Severity:</b>	normal		

#### Description

in the cdmlib factory.openSession() is being used in three places.

- ./cdmlib-model/src/test/java/eu/etaxonomy/cdm/model/DatabaseInitialiser.java : **this is OK!!!**
- ./cdmlib-services/src/main/java/eu/etaxonomy/cdm/api/application/CdmRepository.java : **Problematic!#7106**
- ./cdmlib-persistence/src/main/java/eu/etaxonomy/cdm/persistence/dao/hibernate/common/DaoBase.java : **Problematic!#8169**

the usage of factory.openSession() in CdmRepository and DaoBase seem unnecessary and can potentially be dangerous since sessions should generally be managed through the HibernateTransactionManger only. factory.openSession() should only be uses in dedicated special cases, therefore the current implementation of getSession() in these classes seems as a error prone convenience hack:

In DaoBase and CdmRepository this occurs in:

```
protected Session getSession(){
    Session session ;
    try {
        session = factory.getCurrentSession();
    } catch (HibernateException e) {
        session = factory.openSession();
    }
    return session;
}
```

In CdmRepository using factory.openSession() is plain wrong, the HibernateTransactionManger should be used instead.

Instead of catching the HibernateException, the method should return null or throw the exception so that the caller needs to handle this case.

especially the usage in DaoBase is critical since this method is called from many places. Usually this is not a problem as long as the dao methods are called from a service method which are wrapped in a transactional context:

```
eu.etaxonomy.cdm.persistence.dao.hibernate.common.DaoBase.getSession()
eu.etaxonomy.cdm.persistence.dao.hibernate.common.PreferenceDaoImpl.count()
eu.etaxonomy.cdm.persistence.dao.hibernate.description.IdentificationKeyDaoImpl.count()
eu.etaxonomy.cdm.persistence.dao.hibernate.view.AuditEventDao.count()
eu.etaxonomy.cdm.persistence.dao.hibernate.description.IdentificationKeyDaoImpl.countByTaxonomicScope(UUID, Class<T>)
eu.etaxonomy.cdm.persistence.dao.hibernate.statistics.StatisticsDaoHibernateImpl.countNomenclatureReferences()
eu.etaxonomy.cdm.persistence.dao.hibernate.statistics.StatisticsDaoHibernateImpl.countTaxaInClassification(Class<? extends TaxonBase>, Classification)
eu.etaxonomy.cdm.persistence.dao.hibernate.view.AuditEventDao.exists(UUID)
eu.etaxonomy.cdm.persistence.dao.hibernate.common.PreferenceDaoImpl.find(TaxonNode, String)
eu.etaxonomy.cdm.persistence.dao.hibernate.view.AuditEventDao.findByDate(DateTime)
eu.etaxonomy.cdm.persistence.dao.hibernate.view.AuditEventDao.findById(Integer)
eu.etaxonomy.cdm.persistence.dao.hibernate.description.IdentificationKeyDaoImpl.findByTaxonomicScope(UUID, Class<T>, Integer, Integer, List<String>)
eu.etaxonomy.cdm.persistence.dao.hibernate.view.AuditEventDao.findByUuid(UUID)
eu.etaxonomy.cdm.persistence.dao.hibernate.common.DaoBase.flush()
eu.etaxonomy.cdm.persistence.dao.hibernate.common.PreferenceDaoImpl.get(PrefKey)
eu.etaxonomy.cdm.persistence.dao.hibernate.statistics.StatisticsDaoHibernateImpl.getAllChildNodeIds
```

```

s (UUID)
eu.etaxonomy.cdm.persistence.dao.hibernate.view.AuditEventDao.getAuditReader()
eu.etaxonomy.cdm.persistence.dao.hibernate.view.AuditEventDao.getNextAuditEvent(AuditEvent)
eu.etaxonomy.cdm.persistence.dao.hibernate.view.AuditEventDao.getPreviousAuditEvent(AuditEvent)
eu.etaxonomy.cdm.persistence.dao.hibernate.common.CdmEntityDaoBase.getSession()
eu.etaxonomy.cdm.persistence.dao.hibernate.common.PreferenceDaoImpl.list()
eu.etaxonomy.cdm.persistence.dao.hibernate.view.AuditEventDao.list(Integer, Integer, AuditEventSort)
eu.etaxonomy.cdm.persistence.dao.hibernate.description.IdentificationKeyDaoImpl.list(Integer, Integer, List<String>)
eu.etaxonomy.cdm.persistence.dao.hibernate.statistics.StatisticsDaoHibernateImpl.processQueries(List<String>, Map<String, Object>)
eu.etaxonomy.cdm.persistence.dao.hibernate.statistics.StatisticsDaoHibernateImpl.processQueriesWithIdDistinctListResult(List<String>, Map<String, Object>)
eu.etaxonomy.cdm.persistence.dao.hibernate.common.PreferenceDaoImpl.set(CdmPreference)

```

#### Subtasks:

bug # 7106: avoid factory.openSession() in CdmRepository  
bug # 8169: avoid factory.openSession() in DaoBase

**Closed**  
**New**

#### Associated revisions

##### Revision 71cf0ed1 - 12/18/2017 11:56 AM - Andreas Kohlbecker

ref #7105 logging the calls to factory.openSession() as error

#### History

##### #1 - 12/04/2017 11:16 AM - Andreas Kohlbecker

- Description updated

##### #2 - 12/04/2017 11:17 AM - Andreas Kohlbecker

- Description updated

##### #3 - 12/18/2017 11:52 AM - Andreas Kohlbecker

- Description updated

##### #4 - 02/02/2018 03:32 PM - Andreas Müller

- Target version changed from Unassigned CDM tickets to Release 4.14

##### #5 - 02/02/2018 03:34 PM - Andreas Müller

Strange, I can't change priority in this ticket. AK, can you change it to highest?

##### #6 - 02/15/2018 03:16 PM - Andreas Müller

- Target version changed from Release 4.14 to Release 5.0

##### #7 - 05/14/2018 11:30 PM - Andreas Müller

- Target version changed from Release 5.0 to Release 5.1

##### #8 - 06/27/2018 02:27 PM - Andreas Müller

- Target version changed from Release 5.1 to Release 5.2

##### #9 - 08/17/2018 03:44 PM - Andreas Müller

- Target version changed from Release 5.2 to Release 5.3

##### #10 - 09/06/2018 09:57 AM - Andreas Müller

- Target version changed from Release 5.3 to Release 5.4

##### #11 - 10/23/2018 11:29 AM - Andreas Müller

- Target version changed from Release 5.4 to Release 5.5

##### #12 - 02/14/2019 10:24 PM - Andreas Müller

- Target version changed from Release 5.5 to Release 5.6

**#13 - 02/19/2019 05:01 PM - Andreas Müller**

- Target version changed from Release 5.6 to Reviewed Next Major Release

**#14 - 03/07/2019 03:28 PM - Andreas Kohlbecker**

- Description updated