

Database - Bug #2237

wrong historical annotations in dynamic temp-tables

01/28/2014 09:38 AM - Ovidiu Maxiniuc

| | | | |
|------------------------|--|------------------------|------------|
| Status: | Closed | Start date: | 01/27/2014 |
| Priority: | Normal | Due date: | |
| Assignee: | Ovidiu Maxiniuc | % Done: | 100% |
| Category: | | Estimated time: | 0.00 hour |
| Target version: | Cleanup and Stablization for Server Features | case_num: | |
| billable: | No | | |
| vendor_id: | GCD | | |
| Description | | | |

History

#1 - 01/28/2014 09:43 AM - Ovidiu Maxiniuc

- Status changed from New to WIP

When creating dynamic temp-tables the field and table annotations are wrong. I could reproduce this in dynamic queries (methods find-first etc). The code:

```
create temp-table dt1.  
dt1:add-new-field("book-id", "integer").  
dt1:add-new-field("iSbn", "character").  
dt1:temp-table-prepare("tFile").
```

is converted in-memory at runtime to an AST like:

```
_temp [DATA_MODEL] @0:0  
(package=com.goldencode.p2j.persist.dynamic, path=com/goldencode/testcases/dmo/, permanent=false, peerid=1)  
  DynamicRecord1 [CLASS] @0:0  
    (peerid=2, historical=dt1, table=dt1)  
      id [PRIMARY] @0:0  
        (column=id, datatype=Long)  
        field1 [PROPERTY] @0:0  
          (peerid=3, column=field1, historical=field1, datatype=integer, label=book-id, fieldid=1)  
            initial [INITIAL] @0:0  
              0 [NUM_LITERAL] @0:0  
            field2 [PROPERTY] @0:0  
              (peerid=4, column=field2, historical=field2, datatype=character, label=iSbn, length=256, fieldid=2)  
                initial [INITIAL] @0:0  
                  [STRING] @0:0
```

The historical annotations are wrong (original values are lost), so they cannot be found later when needed by dynamic queries in P2OLookup.

#2 - 01/28/2014 09:49 AM - Ovidiu Maxiniuc

Here is a more complex sample case:

```
def var h1 as handle.
def var h2 as handle.
def var bh1 as handle.
def var bh2 as handle.

create temp-table h1.
h1:add-new-field("F-1", "character").
h1:temp-table-prepare("T#t").
bh1 = h1:default-buffer-handle.

create temp-table h2.
h2:add-new-field("I#1", "integer").
h2:temp-table-prepare("T#t").
bh2 = h2:default-buffer-handle.

...

bh1:find-first().
bh2:find-first().
```

Thanks to Stanislav for suggestion, I am working with this case, too.

#3 - 01/28/2014 01:42 PM - Ovidiu Maxiniuc

- File *om_upd20140128a.zip* added

Looks like this update fixes the issue.

The table legacy name is also added to in-memory AST. When TRPL (p2o.xml) is about to update the "historical" annotation for table/field/index, first it checks if there is not one in [this]. This will only happen for dynamic temp-tables so it will use that value, otherwise will save in this annotation the object name as it will be overwritten.

I was just about to send this note when I saw a

```
java.util.ConcurrentModificationException
    at java.util.HashMap$HashIterator.nextEntry(HashMap.java:806)
    at java.util.HashMap$KeyIterator.next(HashMap.java:841)
    at com.goldencode.p2j.persist.DynamicTablesHelper$Context.finished(DynamicTablesHelper.java:854)
```

I have fixed that (see DynamicTablesHelper.java:858) before uploading the update.

#4 - 02/07/2014 12:08 PM - Eric Faulhaber

I have fixed that (see DynamicTablesHelper.java:858) before uploading the update.

Why not use java.util.Set's <T> T[] toArray(T[] a) method here instead of doing the cast?

Otherwise, the update looks good.

#5 - 02/07/2014 01:01 PM - Ovidiu Maxiniuc

No 'strong' reason. Looking into AbstractCollection's source code, both methods share the same implementation except for the initial step of creating the returning array if its size is incorrect.

I will replace the method body with

```
Set<Class> keys = tables.keySet();
Class[] classes = new Class[keys.size()];
classes = keys.toArray(classes); // should return the same array object
for (Class dmoIface : classes)
{
    instance.dropTable(dmoIface);
}
```

Semantically, it's the same. I will put this new update to a full-test.

#6 - 02/14/2014 01:51 PM - Eric Faulhaber

Ovidiu, please post the final update you used for testing and check it in and distribute once it has passed.

#7 - 02/14/2014 01:58 PM - Ovidiu Maxiniuc

- File om_upd20140214a.zip added

This is the latest update that is not under testing.

It passed the conversion (I had to manually run the diff - there were no changes in generated code), however I am encountering difficulties with runtime test, not because of the code itself but seems like the server is a little overloaded as I got these exceptions a few times now:

```
[exec] Non-testing errors (CONNECT_FAILURE) occurred during test execution:
[exec] com.jcraft.jsch.JSchException: Auth fail
[exec]     at com.jcraft.jsch.Session.connect(Session.java:502)
```

```
[exec] at com.goldencode.harness.transport.SSH2Transport.connect (SSH2Transport.java:70)
[exec] at com.goldencode.harness.transport.TransportManager.connect (TransportManager.java:69)
[exec] at com.goldencode.harness.Driver.<init> (Driver.java:83)
[exec] at com.goldencode.harness.TestSet.run (TestSet.java:257)
[exec] at java.lang.Thread.run (Thread.java:744)
```

for both CTRL+C and main test suites.
In the worse case, I will try again tomorrow.

#8 - 02/14/2014 02:14 PM - Eric Faulhaber

Ovidiu, you modified p2o.xml and conversion testing has passed. The only other files that changed are new runtime classes that are not used by the regression testing environment, so I would not worry about runtime regression testing. If you are satisfied that this update fixes the issue, go ahead and check it in and distribute.

Before you do this, please correct the module name at the top of DynamicTablesHelper, which says P2JField.java.

#9 - 02/14/2014 02:51 PM - Ovidiu Maxiniuc

- File deleted (om_upd20140214a.zip)

#10 - 02/14/2014 02:53 PM - Ovidiu Maxiniuc

- File om_upd20140214b.zip added

Replaced the update with the new one with the small change.
It was committed to bzi in rev 10465 and distributed by mail.

#11 - 02/24/2014 11:19 AM - Eric Faulhaber

- % Done changed from 0 to 100
- Status changed from WIP to Closed

#12 - 11/16/2016 12:07 PM - Greg Shah

- Target version changed from Milestone 11 to Cleanup and Stabilization for Server Features

Files

| | | | |
|---------------------|---------|------------|-----------------|
| om_upd20140128a.zip | 39.7 KB | 01/28/2014 | Ovidiu Maxiniuc |
| om_upd20140214b.zip | 39.7 KB | 02/14/2014 | Ovidiu Maxiniuc |