

## Database - Bug #5440

### finish DatabaseManager refactoring for implicit/explicit connections

06/13/2021 07:11 PM - Eric Faulhaber

<b>Status:</b>	New	<b>Start date:</b>	
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>		<b>% Done:</b>	0%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>		<b>case_num:</b>	
<b>billable:</b>	No	<b>version:</b>	
<b>vendor_id:</b>	GCD		
<b>Description</b>			
<b>Related issues:</b>			
Related to Database - Feature #3930: allow session level control over the dat...			<b>Closed</b>

### History

#### #1 - 06/13/2021 07:42 PM - Eric Faulhaber

Issue [#3930](#) added session level control over database connections (in the 4GL sense, not the JDBC sense). These connections are similar to explicit connections made by the 4GL CONNECT statement, but they occur implicitly when a session (i.e., user context) begins, and are terminated implicitly when that session ends. Explicit connections and disconnections are still possible, as before. In fact, these two types of connections should be the same in every sense, except their implicit/explicit nature.

The new implementation left behind an internal distinction between implicit and explicit connections which needs to be cleaned up. Both types of connections should be accounted for the same way internally, and should be cleaned up properly, whether the disconnect occurs:

- explicitly (via DISCONNECT statement);
- implicitly by session termination, whether or not the original connection was made implicitly or explicitly (the latter case may occur if application code does not properly pair a DISCONNECT statement with its corresponding CONNECT statement).

#### #2 - 06/13/2021 07:42 PM - Eric Faulhaber

- Related to Feature #3930: allow session level control over the database(s) which are auto-connected added

#### #3 - 12/06/2021 12:31 PM - Roger Borrello

I had been attempting to configure a project for multiple databases, and had (incorrectly) configured the directory with:

```
<node class="container" name="server">
  <node class="container" name="default">
    <node class="container" name="runtime">
      <node class="container" name="default">
        <node class="strings" name="database-connections.server">
          <node-attribute name="values" value="db1,db2,db3,db4,db5,db6,db7"/>
        </node>
      </node>
    </node>
  </node>
</node>
```

I received the below... we should probably handle more gracefully.

[12/06/2021 10:25:52 EST] (com.goldencode.p2j.persist.DatabaseManager:INFO) Connecting to [db1,db2,db3,db4,db5,db6,db7]

[12/06/2021 10:25:52 EST] (ErrorManager:SEVERE) {0000000E:00000027:projAS1} stack trace follows  
com.goldencode.p2j.persist.PersistenceException: java.lang.NullPointerException

Caused by: java.lang.NullPointerException

```
at com.goldencode.p2j.net.RouterSessionManager.connectVirtual(RouterSessionManager.java:426)
at com.goldencode.p2j.net.SessionManager.connectVirtual(SessionManager.java:730)
at com.goldencode.p2j.persist.ConnectionManager.makeConnection(ConnectionManager.java:3492)
at com.goldencode.p2j.persist.ConnectionManager.connect(ConnectionManager.java:3313)
at com.goldencode.p2j.persist.ConnectionManager.connectDbImpl(ConnectionManager.java:2994)
at com.goldencode.p2j.persist.ConnectionManager.connect_(ConnectionManager.java:663)
at com.goldencode.p2j.persist.ConnectionManager.connect(ConnectionManager.java:564)
at com.goldencode.p2j.persist.DatabaseManager.autoConnect(DatabaseManager.java:878)
at com.goldencode.p2j.util.Agent.prepare(Agent.java:2555)
at com.goldencode.p2j.util.Agent.listen(Agent.java:423)
at com.goldencode.p2j.util.AgentPool.start(AgentPool.java:551)
at com.goldencode.p2j.util.AppServerManager.startAppServer(AppServerManager.java:1482)
at com.goldencode.p2j.main.StandardServer.standardEntry(StandardServer.java:429)
at com.goldencode.p2j.main.StandardServerMethodAccess.invoke(Unknown Source)
at com.goldencode.p2j.util.MethodInvoker.invoke(MethodInvoker.java:156)
at com.goldencode.p2j.net.Dispatcher.processInbound(Dispatcher.java:783)
at com.goldencode.p2j.net.Conversation.block(Conversation.java:422)
at com.goldencode.p2j.net.Conversation.run(Conversation.java:232)
at java.lang.Thread.run(Thread.java:748)
```

[12/06/2021 10:25:52 EST] (com.goldencode.p2j.persist.ConnectionManager:SEVERE) CONNECT failed  
com.goldencode.p2j.util.ErrorConditionException: com.goldencode.p2j.persist.PersistenceException: java.lang.NullPointerException

Caused by: com.goldencode.p2j.persist.PersistenceException: java.lang.NullPointerException

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