

Conversion Tools - Bug #5557

Direct Java conversion: incorrect method call argument conversion

07/21/2021 01:36 PM - Vladimir Tsichevski

Status:	Closed	Start date:	
Priority:	Normal	Due date:	
Assignee:	Constantin Asofiei	% Done:	100%
Category:		Estimated time:	0.00 hour
Target version:		case_num:	
billable:	No	version:	
vendor_id:	GCD		
Description			

History

#1 - 07/21/2021 01:48 PM - Vladimir Tsichevski

Example 4gl:

```
USING java.io.ByteArrayOutputStream FROM JAVA.  
DEFINE VARIABLE bos AS ByteArrayOutputStream.  
bos = new ByteArrayOutputStream(10000).
```

```
USING java.io.DataOutputStream FROM JAVA.  
DEFINE VARIABLE out AS DataOutputStream.  
out = new DataOutputStream(bos).
```

Converts to Java as:

```
...  
@LegacySignature(type = Type.VARIABLE, name = "bos")  
jobject<? extends ByteArrayOutputStream> bos = UndoableFactory.jobject(ByteArrayOutputStream.class);  
  
@LegacySignature(type = Type.VARIABLE, name = "out")  
jobject<? extends DataOutputStream> out = UndoableFactory.jobject(DataOutputStream.class);  
  
@LegacySignature(type = Type.MAIN, name = "test-java.p")  
public void execute()  
{  
    externalProcedure(TestJava.this, new Block((Init) () ->  
    {  
        ObjectOps.register(out, bos);  
    },  
    (Body) () ->  
    {  
        bos.assign(new java.io.ByteArrayOutputStream(10000));  
        out.assign(new java.io.DataOutputStream(bos));  
    }));  
}
```

ByteArrayOutputStream

Note an object of type jobject is passed to new java.io.DataOutputStream(bos) instead of a ByteArrayOutputStream instance. The correct conversion output here must be new java.io.DataOutputStream(bos.ref()).

#3 - 07/21/2021 02:07 PM - Constantin Asofiei

Please try this patch:

```
### Eclipse Workspace Patch 1.0
#P p2j
Index: rules/convert/variable_references.rules
=====
--- rules/convert/variable_references.rules      (revision 2943)
+++ rules/convert/variable_references.rules      (working copy)
@@ -901,6 +901,13 @@
     <rule on="false">not (this.indexPos == 1 and parent.type == prog.object_invocation)
       <action>lastid = closestPeerId</action>

+     <!-- java variables need a 'ref' if passed as an argument to a Java-style call -->
+     <rule>parent.type == prog.parameter and
+       evalLib("is_java_cls", this) and
+       evalLib("is_java_cls", parent.parent.parent)
+       <action>lastid = createJavaAst (java.method_call, "ref", lastid)</action>
+     </rule>
+
     <!-- emit variable/accessor -->
     <action>createPeerAst (methodType, methodTxt, lastid)</action>
```

#4 - 07/21/2021 02:13 PM - Vladimir Tsichevski

Constantin Asofiei wrote:

Please try this patch:
[...]

It works, thank you! Will you commit the patch?

#5 - 07/21/2021 02:29 PM - Constantin Asofiei

- Status changed from New to WIP
- % Done changed from 0 to 100
- Assignee set to Constantin Asofiei

Fixed in 3821c rev 12697.

#6 - 07/23/2021 05:12 PM - Vladimir Tsichevski

- *Status changed from WIP to Review*

#7 - 07/26/2021 08:12 AM - Greg Shah

- *Status changed from Review to Closed*