

Conversion Tools - Bug #5558

Direct Java interface: extra semicolon in converted Java breaks program logic

07/22/2021 09:51 AM - Vladimir Tsichevski

Status:	WIP	Start date:	
Priority:	High	Due date:	
Assignee:	Constantin Asofiei	% Done:	50%
Category:		Estimated time:	0.00 hour
Target version:			
billable:	No	case_num:	
vendor_id:	GCD	version:	
Description			

History

#1 - 07/22/2021 09:55 AM - Vladimir Tsichevski

The following 4gl:

```
DEFINE VARIABLE hQuery AS HANDLE NO-UNDO.

DO WHILE hQuery:GET-NEXT() :
    MESSAGE "Hello".
    CATCH EXC AS java.io.IOException:
    END.
END.
```

Produces the following Java output:

```
try
{
    loopLabel0:
    ;
    while ((hQuery.unwrapQuery().getNext()).booleanValue())
;
    {
        message("Hello");
    }
}
catch (java.io.IOException exc)
{
    processCatch(() ->
    {
    });
}
```

Note the extra semicolon after the while(...) line, which breaks the program logic.

Also, the catch(..) line indentation is incorrect.

#3 - 07/22/2021 11:43 AM - Constantin Asofiei

- Status changed from New to WIP
- Assignee set to Constantin Asofiei

Greg, please review this. I'm not sure how correct it is:

```
### Eclipse Workspace Patch 1.0
#P p2j
Index: rules/convert/brew.xml
=====
--- rules/convert/brew.xml      (revision 2944)
+++ rules/convert/brew.xml      (working copy)
@@ -448,6 +448,7 @@
     <rule>notCode.add(java.star_comment)</rule>
     <rule>notCode.add(java.skip)</rule>
     <rule>notCode.add(java.annotation)</rule>
+    <rule>notCode.add(java.label_def)</rule>

     <rule>!isRuntimeConfig()
         <rule>outputRoot = getConfigParameter("output-root")</rule>
@@ -761,7 +762,8 @@
         type != java.initializer    and
         type != java.star_comment   and
         type != java.indent_grp     and
-        (parent.type == java.block or parent.type == java.initializer          or
+        (type == java.kw_catch or
+        parent.type == java.block or parent.type == java.initializer          or
+        parent.type == java.bogus or parent.type == java.indent_grp          or
+        (parent.type == java.kw_switch and childIndex > 0 and type != java.then) or
         (type == java.kw_break       and
```

#4 - 07/22/2021 12:55 PM - Greg Shah

Code Review Patch [#5558-3](#)

I think it is correct. No objections.

#5 - 07/22/2021 01:08 PM - Constantin Asofiei

Greg Shah wrote:

Code Review Patch [#5558-3](#)

I think it is correct. No objections.

Thanks, the patch is in 3821c rev 12705.

#6 - 07/22/2021 01:15 PM - Greg Shah

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

#7 - 07/23/2021 10:47 AM - Vladimir Tsichevski

- % Done changed from 100 to 50
- Status changed from Test to WIP

The fix in rev 12705 removes the extra semicolon after a label, but does not remove the extra semicolon after the while(..) line, which is the real trouble.

#8 - 07/23/2021 12:21 PM - Constantin Asofiei

Can you work around this issue? This block doesn't convert properly, either:

```
if hquery <> then
do:
    MESSAGE "Hello".
    CATCH EXC AS java.io.IOException:
    END.
end.
```

#9 - 07/23/2021 12:26 PM - Constantin Asofiei

Actually, the test above converts OK (I was missing the <> ? right-side operand).

The question about if you can work around this still stands.

#10 - 07/23/2021 02:00 PM - Vladimir Tsichevski

Constantin Asofiei wrote:

The question about if you can work around this still stands.

Do you mean the extra semicolon after the while(..) ? I can only fix this manually in the converted Java to be able to debug other problems, but I cannot put the result into production.

#11 - 07/23/2021 02:09 PM - Constantin Asofiei

Vladimir Tsichevski wrote:

Do you mean the extra semicolon after the while(..) ? I can only fix this manually in the converted Java to be able to debug other problems, but I cannot put the result into production.

Yes, I mean to find a way to write the code in 4GL to avoid this problem.

#12 - 07/23/2021 02:20 PM - Constantin Asofiei

This seems to work:

```
DO WHILE hQuery:GET-NEXT() :  
  MESSAGE "Hello".  
  do:  
    // execute Java code here  
    CATCH EXC AS java.io.IOException:  
      undo, throw new progress.lang.apperror("failed").  
    END.  
  end.  
END.
```