

Conversion Tools - Bug #5561

Direct Java interface: conversion crashes when an expression is passed as argument to Java call

07/22/2021 11:51 AM - Vladimir Tsichevski

Status:	Review	Start date:	
Priority:	High	Due date:	
Assignee:	Greg Shah	% Done:	100%
Category:		Estimated time:	0.00 hour
Target version:		case_num:	
billable:	No		
vendor_id:	GCD		
Description			

History

#1 - 07/22/2021 11:55 AM - Vladimir Tsichevski

The following fragment conversion crashes:

```
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).
```

```
DEFINE VARIABLE intVar AS INTEGER NO-UNDO.  
DO:  
    out:writeInt(intVar + 5).  
    CATCH EXC AS java.io.IOException:  
        END.  
END.
```

the error is:

```
[java] EXPRESSION EXECUTION ERROR:  
[java] -----  
[java] sig = sig.substring(sig.indexOf('(') + 1))  
[java]           ^ { java.lang.NullPointerException }  
[java] -----  
[java] ERROR:  
[java] com.goldencode.p2j.pattern.TreeWalkException: ERROR! Active Rule:  
[java] -----  
[java]           RULE REPORT  
[java] -----  
[java] Rule Type :    WALK  
[java] Source AST: [ + ] BLOCK/INNER_BLOCK/BLOCK/ASSIGNMENT/EXPRESSION/OBJECT_INVOCATION/OO_METH_VOID/PL  
US/ @12:29 {227633266799}  
[java] Copy AST  : [ + ] BLOCK/INNER_BLOCK/BLOCK/ASSIGNMENT/EXPRESSION/OBJECT_INVOCATION/OO_METH_VOID/PL  
US/ @12:29 {227633266799}  
[java] Condition : sig = sig.substring(sig.indexOf('(') + 1))  
[java] Loop      : false  
[java] --- END RULE REPORT ---  
[java]  
[java]  
[java] at com.goldencode.p2j.pattern.PatternEngine.run(PatternEngine.java:1070)  
[java] at com.goldencode.p2j.convert.TransformDriver.processTrees(TransformDriver.java:569)  
[java] at com.goldencode.p2j.convert.ConversionDriver.back(ConversionDriver.java:585)  
[java] at com.goldencode.p2j.convert.TransformDriver.executeJob(TransformDriver.java:948)  
[java] at com.goldencode.p2j.convert.ConversionDriver.main(ConversionDriver.java:1020)
```

```
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:25 [PLUS id=2276
33266799]
[java]     at com.goldencode.p2j.pattern.AstWalker.walk(AstWalker.java:275)
[java]     at com.goldencode.p2j.pattern.AstWalker.walk(AstWalker.java:210)
[java]     at com.goldencode.p2j.pattern.PatternEngine.apply(PatternEngine.java:1633)
[java]     at com.goldencode.p2j.pattern.PatternEngine.processAst(PatternEngine.java:1531)
[java]     at com.goldencode.p2j.pattern.PatternEngine.processAst(PatternEngine.java:1479)
[java]     at com.goldencode.p2j.pattern.PatternEngine.run(PatternEngine.java:1034)
[java]     ... 4 more
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:25
[java]     at com.goldencode.expr.Expression.execute(Expression.java:484)
[java]     at com.goldencode.p2j.pattern.Rule.apply(Rule.java:497)
[java]     at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:745)
[java]     at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:712)
[java]     at com.goldencode.p2j.pattern.Rule.apply(Rule.java:534)
[java]     at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:745)
[java]     at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:712)
[java]     at com.goldencode.p2j.pattern.Rule.apply(Rule.java:534)
[java]     at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:745)
[java]     at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:712)
[java]     at com.goldencode.p2j.pattern.Rule.apply(Rule.java:534)
[java]     at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:745)
[java]     at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:712)
[java]     at com.goldencode.p2j.pattern.Rule.apply(Rule.java:534)
[java]     at com.goldencode.p2j.pattern.RuleContainer.apply(RuleContainer.java:585)
[java]     at com.goldencode.p2j.pattern.RuleSet.apply(RuleSet.java:1)
[java]     at com.goldencode.p2j.pattern.RuleContainer.apply(RuleContainer.java:585)
[java]     at com.goldencode.p2j.pattern.RuleSet.apply(RuleSet.java:1)
[java]     at com.goldencode.p2j.pattern.AstWalker.walk(AstWalker.java:262)
[java]     ... 9 more
[java] Caused by: java.lang.NullPointerException
[java]     at com.goldencode.expr.CE18602.execute(Unknown Source)
[java]     at com.goldencode.expr.Expression.execute(Expression.java:391)
[java]     ... 27 more
```

If the line

```
out.writeInt(intVar + 5).
```

is changed to

```
out.writeInt(intVar).
```

then the conversion runs OK and produces presumably valid result.

#3 - 07/22/2021 03:06 PM - Greg Shah

- % Done changed from 0 to 100

- Assignee set to Greg Shah

- Status changed from New to Review

Fixed in branch 3821c revision 12708. We must exclude Java method calls from built-in OO 4GL method processing.

Constantin: Please review.