

Base Language - Bug #4423

Incorrect buffer scoping when same buffer name used as a parameter to internal procedure

11/22/2019 01:21 PM - Roger Borrello

Status:	Closed	Start date:	
Priority:	Normal	Due date:	
Assignee:	Roger Borrello	% Done:	100%
Category:		Estimated time:	8.00 hours
Target version:		case_num:	
billable:	No	version:	
vendor_id:	GCD		
Description			

History

#1 - 11/22/2019 01:49 PM - Roger Borrello

General

Conversion error occurs when dealing with a shared buffer name that also happens to be defined as a parameter within an internal procedure.

Update: We completed regression on the 4207a-11341 revision.

P2J Branch

This is being handled in Branch **4207a**

Testcase

Checked into testcase_repo as uast/shared-buffer/shared-buffer-internal-procedure.p. Make sure you have at least Rev 2019 for correct p2j_test.df file.

```
procedure whydoesthismatter:
  define parameter buffer mybuff for Person.
end procedure.
```

```
def new shared buffer mybuff for Person.
find first mybuff no-error.
site-id = 3.
message avail mybuff.
```

Artifacts

Execution Log

Code Conversion Annotations

```
Optional rule set [customer_specific_annotations_prep] not found.
./shared-buffer/shared-buffer-internal-procedure.p
Elapsed job time: 00:00:00.957
ERROR:
com.goldencode.p2j.pattern.TreeWalkException: ERROR! Active Rule:
```

RULE REPORT

```
Rule Type : WALK
Source AST: [ site-id ] BLOCK/ASSIGNMENT/ASSIGN/FIELD_INT/ @8:1 {455266533424}
```

```
Copy AST : [ site-id ] BLOCK/ASSIGNMENT/ASSIGN/FIELD_INT/ @8:1 {455266533424}
Condition : throwException(sprintf(spec, bufname, reftype), this)
Loop      : false
--- END RULE REPORT ---
```

```
at com.goldencode.p2j.pattern.PatternEngine.run(PatternEngine.java:1070)
at com.goldencode.p2j.convert.TransformDriver.processTrees(TransformDriver.java:542)
at com.goldencode.p2j.convert.ConversionDriver.back(ConversionDriver.java:562)
at com.goldencode.p2j.convert.TransformDriver.executeJob(TransformDriver.java:876)
at com.goldencode.p2j.convert.ConversionDriver.main(ConversionDriver.java:983)
Caused by: com.goldencode.p2j.pattern.CommonAstSupport$UserGeneratedException: Cannot find buffer named p2j_test.person_p2j_test.person for ref type 21! [FIELD_INT id <455266533424> 8:1]
at com.goldencode.p2j.pattern.CommonAstSupport$Library.throwException(CommonAstSupport.java:2817)
at com.goldencode.expr.CE6846.execute(Unknown Source)
at com.goldencode.expr.Expression.execute(Expression.java:373)
at com.goldencode.p2j.pattern.Rule.apply(Rule.java:497)
at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:745)
at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:712)
at com.goldencode.p2j.pattern.Rule.apply(Rule.java:534)
at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:745)
at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:712)
at com.goldencode.p2j.pattern.Rule.apply(Rule.java:534)
at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:745)
at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:712)
at com.goldencode.p2j.pattern.Rule.apply(Rule.java:534)
at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:745)
at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:712)
at com.goldencode.p2j.pattern.Rule.apply(Rule.java:534)
at com.goldencode.p2j.pattern.RuleContainer.apply(RuleContainer.java:585)
at com.goldencode.p2j.pattern.RuleSet.apply(RuleSet.java:98)
at com.goldencode.p2j.pattern.AstWalker.walk(AstWalker.java:262)
at com.goldencode.p2j.pattern.AstWalker.walk(AstWalker.java:210)
at com.goldencode.p2j.pattern.PatternEngine.apply(PatternEngine.java:1633)
at com.goldencode.p2j.pattern.PatternEngine.processAst(PatternEngine.java:1531)
at com.goldencode.p2j.pattern.PatternEngine.processAst(PatternEngine.java:1479)
at com.goldencode.p2j.pattern.PatternEngine.run(PatternEngine.java:1034)
... 4 more
```

AST Snippet

```
<ast col="0" id="455266533420" line="0" text="assignment" type="ASSIGNMENT">
  <annotation datatype="java.lang.Boolean" key="reachable" value="true"/>
  <ast col="9" id="455266533421" line="8" text="" type="ASSIGN">
    <annotation datatype="java.lang.Boolean" key="reachable" value="true"/>
    <ast col="1" id="455266533424" line="8" text="site-id" type="FIELD_INT">
      <annotation datatype="java.lang.Long" key="oldtype" value="2781"/>
      <annotation datatype="java.lang.String" key="schemaname" value="p2j_test.person.site-id"/>
      <annotation datatype="java.lang.String" key="bufname" value="p2j_test.person"/>
      <annotation datatype="java.lang.String" key="dbname" value="p2j_test"/>
      <annotation datatype="java.lang.Long" key="recordtype" value="12"/>
      <annotation datatype="java.lang.String" key="name" value="site-id"/>
      <annotation datatype="java.lang.Long" key="type" value="410"/>
      <annotation datatype="java.lang.String" key="format" value="&quot;99&quot;"/>
      <annotation datatype="java.util.ArrayList" key="label">
        <listitem datatype="java.lang.String" value="&quot;Site ID&quot;"/>
      </annotation>
      <annotation datatype="java.lang.String" key="columnlabel" value="&quot;Site ID&quot;"/>
      <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
      <annotation datatype="java.lang.Boolean" key="reachable" value="true"/>
    </ast>
  <ast col="0" id="455266533425" line="0" text="expression" type="EXPRESSION">
    <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
    <annotation datatype="java.lang.Boolean" key="reachable" value="true"/>
    <ast col="11" id="455266533426" line="8" text="3" type="NUM_LITERAL">
      <annotation datatype="java.lang.Boolean" key="is-literal" value="true"/>
      <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
      <annotation datatype="java.lang.Boolean" key="reachable" value="true"/>
    </ast>
  </ast>
</ast>
</ast>
```

#2 - 11/22/2019 02:14 PM - Constantin Asofiei

The bufname annotation is incorrect:

```
<annotation datatype="java.lang.String" key="bufname" value="p2j_test.person"/>
```

instead of the correct one:

```
<annotation datatype="java.lang.String" key="bufname" value="p2j_test.mybuff"/>
```

This is a parser problem.

#3 - 11/22/2019 02:20 PM - Roger Borrello

Constantin Asofiei wrote:

The bufname annotation is incorrect:

[...]

instead of the correct one:

[...]

This is a parser problem.

Correct... we had a similar situation already, when there was a FORM or DEFINE FRAME preceding. See #4207#note-2 and below.

#4 - 11/22/2019 02:29 PM - Constantin Asofiei

Greg, the issue is with this code, in progress.g:procedure like 11198:

```
// internal procedures propagate  
sym.deleteSchemaScope(true);
```

This propagates the p2j_test.mybuff to the previous scope, and will prohibit the FIND to propagate the mybuff table buffer (and its fields).

#5 - 11/22/2019 02:45 PM - Greg Shah

I think it needs to do that for regular buffer definitions, but I suspect that buffer parameters should not be propagated.

Roger: you could try to set the 3rd parameter on line 13156 to true `r:record[promote, false, true]`. That is the `noProp` flag and when true it will NOT propagate.

#6 - 11/22/2019 03:07 PM - Roger Borrello

Greg Shah wrote:

I think it needs to do that for regular buffer definitions, but I suspect that buffer parameters should not be propagated.

Roger: you could try to set the 3rd parameter on line 13156 to true `r:record[promote, false, true]`. That is the `noProp` flag and when true it will NOT propagate.

That's line 13152 in my version. You may want to make sure you have 4207a checked out. In any case, testcase passes, and original customer code converts, too.

Any other testing I should do before checking that in?

#7 - 11/22/2019 03:11 PM - Greg Shah

It probably should only be set when this is a parameter.

This change is dangerous so it will need some regression testing. It is probably best to get this done early rather than waiting for the branch to be complete.

#9 - 12/09/2019 02:43 PM - Roger Borrello

- *Status changed from New to WIP*
- *% Done changed from 0 to 100*
- *Estimated time set to 2.00*

#10 - 12/09/2019 02:45 PM - Roger Borrello

- *Assignee set to Roger Borrello*
- *Estimated time changed from 2.00 to 8.00*

#11 - 12/31/2019 11:57 AM - Greg Shah

- *Status changed from WIP to Test*

#12 - 03/03/2020 02:38 PM - Roger Borrello

Task branch 4207a was merged to trunk as revision 11344.

#13 - 03/04/2020 10:28 AM - Greg Shah

- Status changed from Test to Closed