

Conversion Tools - Bug #11974

Unknown frame element: TABLE when a shared frame is formed from a table name

10/12/2026 03:49 AM - Octavian Adrian Gavril

Status:	Internal Test	Start date:	
Priority:	Normal	Due date:	
Assignee:	Octavian Adrian Gavril	% Done:	100%
Category:		Estimated time:	0.00 hour
Target version:			
billable:	No	reviewer:	Constantin Asofiei
vendor_id:	GCD	production:	No
case_num:		env_name:	
version_reported:		topics:	Conversion
version_resolved:			
Description			

History

#1 - 10/12/2026 03:59 AM - Octavian Adrian Gavril

- topics Conversion added

The conversion fails when a table name is used as a frame element inside a FORM block.

Here is a test case:

start.p:

```
define new shared frame f1.  
  
form  
    frmtab  
with frame f1 width 80.
```

Associated .df file:

```
ADD TABLE "frmtab"  
    AREA "Schema Area"  
    DUMP-NAME "frmtab"  
  
ADD FIELD "code" OF "frmtab" AS character  
    FORMAT "x(8)"  
    INITIAL ""  
    LABEL "Code"  
    POSITION 2  
    MAX-WIDTH 16  
    ORDER 10  
  
ADD FIELD "descr" OF "frmtab" AS character  
ADD FIELD "qty" OF "frmtab" AS integer  
  
ADD INDEX "codeidx" ON "frmtab"  
    AREA "Schema Area"  
    UNIQUE  
    PRIMARY  
    INDEX-FIELD "code" ASCENDING
```

```
.
PSC
cpstream=1252
.
0000005407
```

In OE, this statement generates a form containing all fields of the table. However, during conversion, the following error is thrown:

[ShowHide](#)

```
[java] -----
[java] Stable naming (File and Frame Names)
[java] -----
[java] TRPL global variable 'sortedKeys' (java.util.List) is not declared multiThreadAccess="true"
; each conversion thread will collect into its own copy of it and will not see the data collected by the other
rs
[java] TRPL global variable 'values' (java.util.ArrayList) is not declared multiThreadAccess="true"
; each conversion thread will collect into its own copy of it and will not see the data collected by the other
rs
[java] TRPL global variable 'ifaceSuffixMap' (java.util.Map) is not declared multiThreadAccess="true"
; each conversion thread will collect into its own copy of it and will not see the data collected by the other
rs
[java] TRPL global variable 'entry' (java.util.ArrayList) is not declared multiThreadAccess="true"
; each conversion thread will collect into its own copy of it and will not see the data collected by the other
rs
[java] TRPL global variable 'grouped' (java.util.Map) is not declared multiThreadAccess="true"
; each conversion thread will collect into its own copy of it and will not see the data collected by the other
rs
[java] TRPL global variable 'pathMap' (java.util.Map) is not declared multiThreadAccess="true"
; each conversion thread will collect into its own copy of it and will not see the data collected by the other
rs
[java] TRPL global variable 'entryList' (java.util.List) is not declared multiThreadAccess="true"
; each conversion thread will collect into its own copy of it and will not see the data collected by the other
rs
[java] TRPL global variable 'frameSuffixMap' (java.util.Map) is not declared multiThreadAccess="true"
; each conversion thread will collect into its own copy of it and will not see the data collected by the other
rs
[java] EXPRESSION EXECUTION ERROR:-----_formKey = create("
com.goldencode.p2j.uast.FrameAstKey"
, copy, frName)_
^ { java.lang.reflect.InvocationTargetException }-----
[java] ERROR! Active Rule:-----_ RULE REPORT _-----_Rule
Type : WALK_Source AST: [ form ] BLOCK/STATEMENT/KW_FORM/ @3:1 {12884901903
}_Copy AST : [ form ] BLOCK/STATEMENT/KW_FORM/ @3:1 {12884901903}_Condition : formKey = create("
com.goldencode.p2j.uast.FrameAstKey", copy, frName)_Loop : false_--- END RULE REPORT ---_
[java] com.goldencode.p2j.pattern.TreeWalkException: ERROR! Active Rule:
[java] -----
[java] RULE REPORT
[java] -----
[java] Rule Type : WALK
[java] Source AST: [ form ] BLOCK/STATEMENT/KW_FORM/ @3:1 {12884901903}
[java] Copy AST : [ form ] BLOCK/STATEMENT/KW_FORM/ @3:1 {12884901903}
[java] Condition : formKey = create("com.goldencode.p2j.uast.FrameAstKey", copy, frName)
[java] Loop : false
[java] --- END RULE REPORT ---
[java]
[java]
[java]
[java] at com.goldencode.p2j.pattern.PatternEngine.handleRunThrowable(PatternEngine.java:2024)
[java] at com.goldencode.p2j.pattern.AstProcessorJob.run(AstProcessorJob.java:259)
[java] at com.goldencode.p2j.pattern.AstProcessorThread.run(AstProcessorThread.java:140)
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:11 [KW_FORM id=
12884901903]
[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:1834)
[java] at com.goldencode.p2j.pattern.PatternEngine.processAst(PatternEngine.java:1718)
[java] at com.goldencode.p2j.pattern.AstProcessorJob.run(AstProcessorJob.java:255)
[java] ... 1 more
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:11
[java] at com.goldencode.expr.Expression.execute(Expression.java:507)
[java] at com.goldencode.p2j.pattern.Rule.apply(Rule.java:501)
```

```

[java] at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:792)
[java] at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:758)
[java] at com.goldencode.p2j.pattern.Rule.apply(Rule.java:538)
[java] at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:792)
[java] at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:758)
[java] at com.goldencode.p2j.pattern.Rule.apply(Rule.java:538)
[java] at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:792)
[java] at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:758)
[java] at com.goldencode.p2j.pattern.Rule.apply(Rule.java:538)
[java] at com.goldencode.p2j.pattern.RuleContainer.apply(RuleContainer.java:665)
[java] at com.goldencode.p2j.pattern.AstWalker.walk(AstWalker.java:262)
[java] ... 5 more
[java] Caused by: java.lang.reflect.InvocationTargetException
[java] at java.base/jdk.internal.reflect.NativeConstructorAccessorImpl.newInstance0(Native Method)
[java] at java.base/jdk.internal.reflect.NativeConstructorAccessorImpl.newInstance(NativeConstructorA
ccessorImpl.java:77)
[java] at java.base/jdk.internal.reflect.DelegatingConstructorAccessorImpl.newInstance(DelegatingCons
tructorAccessorImpl.java:45)
[java] at java.base/java.lang.reflect.Constructor.newInstanceWithCaller(Constructor.java:500)
[java] at java.base/java.lang.reflect.Constructor.newInstance(Constructor.java:481)
[java] at com.goldencode.p2j.pattern.CommonAstSupport$Library.create(CommonAstSupport.java:1373)
[java] at com.goldencode.p2j.pattern.CommonAstSupport$Library.create(CommonAstSupport.java:1258)
[java] at com.goldencode.expr.CE4269.execute(Unknown Source)
[java] at com.goldencode.expr.Expression.execute(Expression.java:410)
[java] ... 17 more
[java] Caused by: java.lang.RuntimeException: Unknown frame element: TABLE(4:5)
[java] form [KW_FORM]:12884901903 @3:1
[java] frmtab [TABLE]:12884901905 @4:5
[java] with [FRAME_PHRASE]:12884901907 @5:1
[java] frame [KW_FRAME]:12884901909 @5:6
[java] f1 [WID_FRAME]:12884901911 @5:12
[java] width [KW_WIDTH]:12884901913 @5:15
[java] 80 [NUM_LITERAL]:12884901915 @5:21
[java]
[java] at com.goldencode.p2j.ust.FrameAstKey.computeHash(FrameAstKey.java:474)
[java] at com.goldencode.p2j.ust.FrameAstKey.initialize(FrameAstKey.java:511)
[java] at com.goldencode.p2j.ust.FrameAstKey.<init>(FrameAstKey.java:162)
[java] ... 26 more
[java] Conversion worker thread failed
[java] com.goldencode.ast.AstException: Conversion failed while processing: ./cvt/a.p.ast
[java] at com.goldencode.p2j.pattern.PatternEngine.handleRunThrowable(PatternEngine.java:2041)
[java] at com.goldencode.p2j.pattern.AstProcessorJob.run(AstProcessorJob.java:259)
[java] at com.goldencode.p2j.pattern.AstProcessorThread.run(AstProcessorThread.java:140)
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:11 [KW_FORM id=
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[java] at com.goldencode.p2j.pattern.AstWalker.walk(AstWalker.java:275)
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[java] at com.goldencode.p2j.pattern.PatternEngine.apply(PatternEngine.java:1834)
[java] at com.goldencode.p2j.pattern.PatternEngine.processAst(PatternEngine.java:1718)
[java] at com.goldencode.p2j.pattern.AstProcessorJob.run(AstProcessorJob.java:255)
[java] ... 1 more
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:11
[java] at com.goldencode.expr.Expression.execute(Expression.java:507)
[java] at com.goldencode.p2j.pattern.Rule.apply(Rule.java:501)
[java] at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:792)
[java] at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:758)
[java] at com.goldencode.p2j.pattern.Rule.apply(Rule.java:538)
[java] at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:792)
[java] at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:758)
[java] at com.goldencode.p2j.pattern.Rule.apply(Rule.java:538)
[java] at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:792)
[java] at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:758)
[java] at com.goldencode.p2j.pattern.Rule.apply(Rule.java:538)
[java] at com.goldencode.p2j.pattern.RuleContainer.apply(RuleContainer.java:665)
[java] at com.goldencode.p2j.pattern.AstWalker.walk(AstWalker.java:262)
[java] ... 5 more
[java] Caused by: java.lang.reflect.InvocationTargetException
[java] at java.base/jdk.internal.reflect.NativeConstructorAccessorImpl.newInstance0(Native Method)
[java] at java.base/jdk.internal.reflect.NativeConstructorAccessorImpl.newInstance(NativeConstructorA
ccessorImpl.java:77)
[java] at java.base/jdk.internal.reflect.DelegatingConstructorAccessorImpl.newInstance(DelegatingCons
tructorAccessorImpl.java:45)
[java] at java.base/java.lang.reflect.Constructor.newInstanceWithCaller(Constructor.java:500)
[java] at java.base/java.lang.reflect.Constructor.newInstance(Constructor.java:481)

```

```

[java] at com.goldencode.p2j.pattern.CommonAstSupport$Library.create(CommonAstSupport.java:1373)
[java] at com.goldencode.p2j.pattern.CommonAstSupport$Library.create(CommonAstSupport.java:1258)
[java] at com.goldencode.expr.CE4269.execute(Unknown Source)
[java] at com.goldencode.expr.Expression.execute(Expression.java:410)
[java] ... 17 more
[java] Caused by: java.lang.RuntimeException: Unknown frame element: TABLE(4:5)
[java] form [KW_FORM]:12884901903 @3:1
[java] frmtab [TABLE]:12884901905 @4:5
[java] with [FRAME_PHRASE]:12884901907 @5:1
[java] frame [KW_FRAME]:12884901909 @5:6
[java] f1 [WID_FRAME]:12884901911 @5:12
[java] width [KW_WIDTH]:12884901913 @5:15
[java] 80 [NUM_LITERAL]:12884901915 @5:21
[java]
[java] at com.goldencode.p2j.ust.FrameAstKey.computeHash(FrameAstKey.java:474)
[java] at com.goldencode.p2j.ust.FrameAstKey.initialize(FrameAstKey.java:511)
[java] at com.goldencode.p2j.ust.FrameAstKey.<init>(FrameAstKey.java:162)
[java] ... 26 more
[java]
[java] ./abl/a.p
[java] ./abl/fwd-embedded-driver.p
[java] ERROR:
[java] java.lang.RuntimeException: Failed to execute rule-set
[java] at com.goldencode.p2j.pattern.PatternEngine.run(PatternEngine.java:1186)
[java] at com.goldencode.p2j.convert.TransformDriver.processTrees(TransformDriver.java:740)
[java] at com.goldencode.p2j.convert.TransformDriver.processTrees(TransformDriver.java:677)
[java] at com.goldencode.p2j.convert.ConversionDriver.middle(ConversionDriver.java:484)
[java] at com.goldencode.p2j.convert.TransformDriver.executeJob(TransformDriver.java:1233)
[java] at com.goldencode.p2j.convert.ConversionDriver.main(ConversionDriver.java:1460)
[java] Caused by: java.lang.IllegalStateException: Conversion failed on a worker thread
[java] at com.goldencode.p2j.pattern.PatternEngine.awaitCompletion(PatternEngine.java:2717)
[java] at com.goldencode.p2j.pattern.PatternEngine.run(PatternEngine.java:1177)
[java] ... 5 more
[java] Caused by: com.goldencode.ast.AstException: Conversion failed while processing: ./cvt/a.p.ast
[java] at com.goldencode.p2j.pattern.PatternEngine.handleRunThrowable(PatternEngine.java:2041)
[java] at com.goldencode.p2j.pattern.AstProcessorJob.run(AstProcessorJob.java:259)
[java] at com.goldencode.p2j.pattern.AstProcessorThread.run(AstProcessorThread.java:140)
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:11 [KW_FORM id=
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[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:1834)
[java] at com.goldencode.p2j.pattern.PatternEngine.processAst(PatternEngine.java:1718)
[java] at com.goldencode.p2j.pattern.AstProcessorJob.run(AstProcessorJob.java:255)
[java] ... 1 more
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:11
[java] at com.goldencode.expr.Expression.execute(Expression.java:507)
[java] at com.goldencode.p2j.pattern.Rule.apply(Rule.java:501)
[java] at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:792)
[java] at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:758)
[java] at com.goldencode.p2j.pattern.Rule.apply(Rule.java:538)
[java] at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:792)
[java] at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:758)
[java] at com.goldencode.p2j.pattern.Rule.apply(Rule.java:538)
[java] at com.goldencode.p2j.pattern.Rule.executeActions(Rule.java:792)
[java] at com.goldencode.p2j.pattern.Rule.coreProcessing(Rule.java:758)
[java] at com.goldencode.p2j.pattern.Rule.apply(Rule.java:538)
[java] at com.goldencode.p2j.pattern.RuleContainer.apply(RuleContainer.java:665)
[java] at com.goldencode.p2j.pattern.AstWalker.walk(AstWalker.java:262)
[java] ... 5 more
[java] Caused by: java.lang.reflect.InvocationTargetException
[java] at java.base/jdk.internal.reflect.NativeConstructorAccessorImpl.newInstance0(Native Method)
[java] at java.base/jdk.internal.reflect.NativeConstructorAccessorImpl.newInstance(NativeConstructorA
ccessorImpl.java:77)
[java] at java.base/jdk.internal.reflect.DelegatingConstructorAccessorImpl.newInstance(DelegatingCons
tructorAccessorImpl.java:45)
[java] at java.base/java.lang.reflect.Constructor.newInstanceWithCaller(Constructor.java:500)
[java] at java.base/java.lang.reflect.Constructor.newInstance(Constructor.java:481)
[java] at com.goldencode.p2j.pattern.CommonAstSupport$Library.create(CommonAstSupport.java:1373)
[java] at com.goldencode.p2j.pattern.CommonAstSupport$Library.create(CommonAstSupport.java:1258)
[java] at com.goldencode.expr.CE4269.execute(Unknown Source)
[java] at com.goldencode.expr.Expression.execute(Expression.java:410)
[java] ... 17 more
[java] Caused by: java.lang.RuntimeException: Unknown frame element: TABLE(4:5)
[java] form [KW_FORM]:12884901903 @3:1

```

```
[java]      frmtab [TABLE]:12884901905 @4:5
[java]      with [FRAME_PHRASE]:12884901907 @5:1
[java]      frame [KW_FRAME]:12884901909 @5:6
[java]      f1 [WID_FRAME]:12884901911 @5:12
[java]      width [KW_WIDTH]:12884901913 @5:15
[java]      80 [NUM_LITERAL]:12884901915 @5:21
[java]
[java]      at com.goldencode.p2j.uast.FrameAstKey.computeHash(FrameAstKey.java:474)
[java]      at com.goldencode.p2j.uast.FrameAstKey.initialize(FrameAstKey.java:511)
[java]      at com.goldencode.p2j.uast.FrameAstKey.<init>(FrameAstKey.java:162)
[java]      ... 26 more
[java]
```

#2 - 10/12/2026 04:07 AM - Octavian Adrian Gavril

- Status changed from New to WIP
- Assignee set to Octavian Adrian Gavril

The root cause of this issue is that `FrameAstKey.equals()` silently skips the `TABLE` node, whereas `computeHash()` throws an exception.

I'm currently preparing a fix for this.

#3 - 10/12/2026 04:51 AM - Octavian Adrian Gavril

- Status changed from WIP to Review
- % Done changed from 0 to 100
- reviewer Constantin Asofiei added

Created task branch **11974a**.

I've committed the fix in **11974a/16796**. I added support for the `TABLE` node inside the `equals()`, `computeHash()`, and `getNextSignificantNode()` methods.

I noticed that Constantin worked in this area as well, so Constantin, please review the changes.

#4 - 10/12/2026 05:11 AM - Constantin Asofiei

- Status changed from Review to Internal Test

Octavian Adrian Gavril wrote:

Created task branch **11974a**.

I've committed the fix in **11974a/16796**. I added support for the TABLE node inside the equals(), computeHash(), and getNextSignificantNode() methods.

I noticed that Constantin worked in this area as well, so Constantin, please review the changes.

The changes makes sense. Please post how the AST looks like for the test in first note.

#5 - 10/12/2026 05:55 AM - Octavian Adrian Gavril

Constantin Asofiei wrote:

The changes makes sense. Please post how the AST looks like for the test in first note.

Here is how the associated AST looked at the moment of failure:

```
<ast col="0" id="12884901902" line="0" text="statement" type="STATEMENT">
  <ast col="1" id="12884901903" line="3" text="form" type="KW_FORM">
    <annotation datatype="java.lang.String" key="support_level-byrule" value="
gaps/gap_analysis_marking.xml:436"/>
    <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
    <ast col="5" id="12884901905" line="4" text="frmtab" type="TABLE">
      <annotation datatype="java.lang.String" key="db_signature" value="char|char|int%UP^codeidx^0|char"/>
      <annotation datatype="java.lang.String" key="schemaname" value="fwd.frmtab"/>
      <annotation datatype="java.lang.Long" key="recordtype" value="12"/>
      <annotation datatype="java.lang.String" key="dbname" value="fwd"/>
      <annotation datatype="java.lang.String" key="bufname" value="fwd.frmtab"/>
    </ast>
    <ast col="1" id="12884901907" line="5" text="with" type="FRAME_PHRASE">
      <ast col="6" id="12884901909" line="5" text="frame" type="KW_FRAME">
        <annotation datatype="java.lang.String" key="support_level-byrule" value="
gaps/gap_analysis_marking.xml:436"/>
        <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
        <ast col="12" id="12884901911" line="5" text="f1" type="WID_FRAME"/>
      </ast>
      <ast col="15" id="12884901913" line="5" text="width" type="KW_WIDTH">
        <annotation datatype="java.lang.String" key="support_level-byrule" value="
gaps/gap_analysis_marking.xml:436"/>
        <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
        <ast col="21" id="12884901915" line="5" text="80" type="NUM_LITERAL">
          <annotation datatype="java.lang.String" key="support_level-byrule" value="
gaps/gap_analysis_marking.xml:436"/>
          <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
        </ast>
      </ast>
    </ast>
  </ast>
</ast>
```

#6 - 10/12/2026 05:57 AM - Constantin Asofiei

Thanks, looks good.

#7 - 10/12/2026 05:58 AM - Octavian Adrian Gavril

Should I start conversion regression testing for a few apps?

#8 - 10/12/2026 05:59 AM - Constantin Asofiei

Octavian Adrian Gavril wrote:

Should I start conversion regression testing for a few apps?

Yes, please.

#10 - 10/13/2026 08:15 AM - Octavian Adrian Gavril

I tested full conversions for **Hotel ChUI**, **Hotel GUI**, **ChUI regression testing app**, **OO app**, and **ETF**. There are no generated output differences for any of these projects. The testcase and the module from #10566 are fixed as well.

I haven't tested any large GUI customer apps yet. Is that necessary, or is the current testing sufficient?

#11 - 10/13/2026 09:09 AM - Constantin Asofiei

Octavian Adrian Gavril wrote:

I haven't tested any large GUI customer apps yet. Is that necessary, or is the current testing sufficient?

Please run that also.

#12 - 10/13/2026 09:12 AM - Octavian Adrian Gavril

Constantin Asofiei wrote:

Octavian Adrian Gavril wrote:

I haven't tested any large GUI customer apps yet. Is that necessary, or is the current testing sufficient?

Please run that also.

Sure. I'll get back to you with the results as soon as the conversion is done.