

User Interface - Bug #4589

menu case sensitivity and conversion

03/18/2020 10:07 AM - Sergey Ivanovskiy

Status: Closed	Start date:
Priority: Normal	Due date:
Assignee: Sergey Ivanovskiy	% Done: 100%
Category:	Estimated time: 0.00 hour
Target version:	case_num:
billable: No	
vendor_id: GCD	
Description	
Related issues:	
Related to User Interface - Bug #4598: define shared menu statement is conver... New	

History

#2 - 03/18/2020 10:08 AM - Greg Shah

- Project changed from Bugs to User Interface
- Subject changed from Menu case sensitivity and conversion to menu case sensitivity and conversion
- Assignee set to Sergey Ivanovskiy

#3 - 03/18/2020 10:13 AM - Sergey Ivanovskiy

Compiling of testcases/uast/submenu_case-sensitive.p with 4231b (rev 11376) failed

compile:

```
[javac] Compiling 18 source files to /home/sbi/projects/testcases/uast/build/classes
[javac] /home/sbi/projects/testcases/uast/src/com/goldencode/testcases/SubmenuCaseSensitive.java:33: error
: cannot find symbol
[javac]         new logical(true).setSensitive();
[javac]                               ^
[javac] symbol:   method setSensitive()
[javac] location: class logical
[javac] 1 error
```

BUILD FAILED

/home/sbi/projects/testcases/uast/build.xml:190: Compile failed; see the compiler error output for details.

#4 - 03/18/2020 10:16 AM - Roger Borrello

If you change thissubmenu:SENSITIVE to ThisSUBMENU:SENSITIVE it will generate the correct results.

#5 - 03/18/2020 10:39 AM - Sergey Ivanovskiy

Thank you, I see it now.

#6 - 03/18/2020 11:23 AM - Sergey Ivanovskiy

According to this 4GL UI test:

```
define sub-menu ThisSUBMENU
  menu-item quitItem label "Quit".
define menu thisMenu menubar
  sub-menu ThisSUBMENU label "Menu".
define frame f1.

/*
do with frame f1:
  sub-menu thissubmenu:SENSITIVE = false.
end.
*/

menu-item quititem:SENSITIVE = false.

ASSIGN DEFAULT-WINDOW:MENUBAR
= MENU thismenu:HANDLE.

view frame f1.

wait-for close of this-procedure.
```

menu and menu item names are case insensitive.

#7 - 03/18/2020 11:27 AM - Roger Borrello

There isn't a frame scoping the menu in the new case. That is what the customer's code is doing, so we need to understand what is different when it's scoped to a frame.

#8 - 03/18/2020 11:31 AM - Sergey Ivanovskiy

I think that frame scoping is not connected with this issue because this example 4GL GUI works similarly on the native system

```
define sub-menu ThisSUBMENU
  menu-item quitItem label "Quit".
define menu thisMenu menubar
  sub-menu ThisSUBMENU label "Menu".
define frame f1.
```

```
do with frame f1:
  sub-menu thissubmenu:SENSITIVE = true.
  menu-item quititem:SENSITIVE = false.

end.

ASSIGN DEFAULT-WINDOW:MENUBAR
= MENU thismenu:HANDLE.

view frame f1.

wait-for close of this-procedure.
```

#9 - 03/18/2020 11:41 AM - Greg Shah

I cannot think of ANY names in the 4GL that are case-sensitive. Our conversion needs to treat all menu, sub-menu and menu-item names case-insensitively. Whether or not the widget is in a frame, it does not matter.

#10 - 03/18/2020 11:49 AM - Roger Borrello

Sergey Ivanovskiy wrote:

I think that frame scoping is not connected with this issue because this example 4GL GUI works similarly on the native system [...]

To that point, the 4GL works just fine, and "thismenu" doesn't equal "thisMenu" if you are case-sensitive. But 4GL is very happy to process it.

FWD, however, isn't:

```
[javac] /home/rfb/projects/VirtualBox-VMs/shared/projects/testcases/src/com/goldencode/testcases/SubmenuCa
seSensitive.java:35: error: cannot find symbol
[javac]         new logical(true).setSensitive();
[javac]                                ^
[javac]    symbol:   method setSensitive()
[javac]    location: class logical
[javac] /home/rfb/projects/VirtualBox-VMs/shared/projects/testcases/src/com/goldencode/testcases/SubmenuCa
seSensitive.java:36: error: cannot find symbol
[javac]         new logical(false).setSensitive();
[javac]                                ^
[javac]    symbol:   method setSensitive()
[javac]    location: class logical
[javac] 2 errors
```

#11 - 03/18/2020 03:21 PM - Sergey Ivanovskiy

- File 4589_1.patch added

Roger, I tested this diff with 4231b patched. It couldn't convert menu-item quititem:SENSITIVE = false. properly but it could convert sub-menu thissubmenu:SENSITIVE = true. May be some widget_references.rules must be added for menu-item.

#12 - 03/18/2020 03:39 PM - Roger Borrello

Sergey Ivanovskiy wrote:

Roger, I tested this diff with 4231b patched. It couldn't convert menu-item quititem:SENSITIVE = false. properly but it could convert sub-menu thissubmenu:SENSITIVE = true. May be some widget_references.rules must be added for menu-item.

I will apply and test.

Fortunately, the customer code only deals with sub-menu, so that is the only testcase I had. If you have a testcase for menu, we can check with Greg to see if it could be left as a TO-DO, or if he'd like you to continue on it.

I'll let you know how it fares against the customer code.

#13 - 03/18/2020 03:41 PM - Sergey Ivanovskiy

- File 4589_2.patch added

Thank you. Please use this patch. It seems that it fixed menu-item according to my test.

#14 - 03/18/2020 03:58 PM - Roger Borrello

Sergey Ivanovskiy wrote:

Thank you. Please use this patch. It seems that it fixed menu-item according to my test.

OK. Is that a patch applied to the patched files, or applied to the original files?

#15 - 03/18/2020 04:06 PM - Greg Shah

Is this a complete fix for all known issues seen in this task?

#16 - 03/18/2020 04:46 PM - Roger Borrello

I don't think it fixes the issue. The Javaname is now lowercase, but not found. Shouldn't it be a converted name?

```
[javac] menuBarWWin.mngoto.getSelf().findMenuItem("mncreditnote").setSensitive(new logical(false));
[javac] ^
[javac] symbol: variable mngoto
[javac] location: variable menuBarWWin of type GstDhlMenuBarWWinMenu
[javac] 98 errors
```

I saw the testcase compile, but this is the customer code. I will see what's different.

#17 - 03/18/2020 05:12 PM - Roger Borrello

I updated the testcase to get the new failure:

```
define sub-menu ThisSUBMENU
  menu-item quitItem label "Quit".
define menu thisMenu menubar
  sub-menu ThisSUBMENU label "Menu".
define frame f1.

do with frame f1:
  sub-menu thissubmenu:SENSITIVE = true.
  menu-item quititem:SENSITIVE = false.
end.

MENU-ITEM quitItem:SENSITIVE IN MENU ThisSUBMENU = FALSE.
MENU thismenu:SENSITIVE = false.

view frame f1.

wait-for close of this-procedure.
```

The IN MENU mnGoTo emits javaname that is wrong:

```
[javac] /home/rfb/projects/VirtualBox-VMs/shared/projects/testcases/src/com/goldencode/testcases/SubmenuCaseSensitive.java:39: error: cannot find symbol
[javac] thisMenu.thissubmenu.getSelf().findMenuItem("quititem").setSensitive(new logical(false));
[javac] ^
[javac] symbol: variable thissubmenu
[javac] location: variable thisMenu of type SubmenuCaseSensitiveThisMenuMenu
[javac] 1 error
```

Previously it emitted:

```
thisMenu.thisSubmenu.getSelf().findMenuItem("quitItem").setSensitive(new logical(false));
```

#18 - 03/19/2020 03:04 AM - Sergey Ivanovskiy

It seems that the sub menu name from its definition should be here, but the converted name can use lower and upper cases. Obviously, it needs to prepare good set of test cases with usages of static and dynamic menu widgets.

#19 - 03/19/2020 05:25 AM - Sergey Ivanovskiy

I am investigating logs from my changes in rules/annotations/menu_scoping.rules because the rules are not clear for me.

#20 - 03/19/2020 08:54 AM - Roger Borrello

Sergey Ivanovskiy wrote:

I am investigating logs from my changes in rules/annotations/menu_scoping.rules because the rules are not clear for me.

There may be some useful notes from Constantin in <https://proj.goldencode.com/issues/4208#note-144>

#21 - 03/19/2020 09:02 AM - Sergey Ivanovskiy

Yes, I have similar questions.

I have only this way to collect all "javaname" annotations created for menus, submenus and menu items by variable_definitions.rules. Greg, could you explain the meaning of names.convert that is used by menu_scoping.rules? For an example,

```
<action>sm = names.convert(smRef.text.toLowerCase(), names.variable)</action>
```

It is implemented by NameConverterWorker.Library.convert. The question is due to smRef.text.toLowerCase() is a name of submenu given in lowercase. Is the returned value related to "javaname" annotation?

#22 - 03/19/2020 09:22 AM - Greg Shah

- 4GL names are always case-insensitive. Java names are always case-sensitive. So we must handle this at conversion time.
- 4GL names can include characters which are invalid in Java names. The hyphen - is an example.
- names is a reference to the NameConverterWorker which uses the NameConverter to convert 4GL names into valid Java names.
- There is a type of each conversion. Class names are camel-cased and start with a capital letter. Method names are camel-cased and start with a lowercased letter. You can look inside the NameConverter for details. In your example, the name will be converted as a variable name.

One thing that seems very wrong in the menu_scoping.rules is how often we are using the name converter. This makes no sense. Normally, we convert once at the place where the resource has a static definition (e.g. DEFINE VARIABLE or DEFINE MENU) and store it in the javaname annotation for later usage. If we need to refer to that javaname in other places, we normally do so by storing a refid annotation which links each usage location with the original definition, from which we can read the javaname.

#23 - 03/19/2020 04:03 PM - Sergey Ivanovskiy

- File 4589_4.patch added

It is interesting what tests from testcases/uast/menu/ should be passed with the trunc version now. I found that my conception didn't work with testcases/uast/menu/win_menu_bar_submenu_same.p because it is an example of menu item and sub menu with the same name.

#24 - 03/19/2020 05:38 PM - Roger Borrello

Sergey Ivanovskiy wrote:

It is interesting what tests from testcases/uast/menu/ should be passed with the trunc version now. I found that my conception didn't work with testcases/uast/menu/win_menu_bar_submenu_same.p because it is an example of menu item and sub menu with the same name.

Should I apply the patch to the 4231b reverted files? Greg, if the customer code does not have that use case Sergey mentioned of same name for menu-item and sub-menu, can we leave a TODO, or should Sergey continue looking?

#25 - 03/20/2020 01:57 AM - Sergey Ivanovskiy

Roger, the last changes fixed your test case but these changes to use low case identifier are not correct. There is another idea to create submenu or menu item keys using the knowledge about its parents if these data are collected at the moment. If I understand this issue correctly, then it needs to identify menu, submenu and menu items with its menu and submenu definitions, then it is possible to use javaname that was assigned by variable_definition rules. In the code there are some comments about unqualified submenus and menu items that needs to be followed.

#26 - 03/20/2020 07:01 AM - Sergey Ivanovskiy

- File 4589_5.patch added

The following 3 types of exceptions were encountered with the last attached diff.
These tests

```
#!/menu/chui_menu_bar_same.p
#!/menu/chui_menu_popup_same.p
#!/menu/empty_labels.p
#!/menu/win_menu_bar_same.p
#!/menu/win_menu_popup_same.p
```

failed with

```
[java] EXPRESSION EXECUTION ERROR:
[java] -----
[java] uiStrings.add(label)
[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: [ menu-item ] BLOCK/STATEMENT/DEFINE_SUB_MENU/KW_MENU_ITM/ @4:3 {103079215121}
[java] Copy AST  : [ menu-item ] BLOCK/STATEMENT/DEFINE_SUB_MENU/KW_MENU_ITM/ @4:3 {103079215121}
[java] Condition : uiStrings.add(label)
```

```

[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:563)
[java] at com.goldencode.p2j.convert.ConversionDriver.generateMenus (ConversionDriver.java:774)
[java] at com.goldencode.p2j.convert.ConversionDriver.back (ConversionDriver.java:581)
[java] at com.goldencode.p2j.convert.TransformDriver.executeJob (TransformDriver.java:906)
[java] at com.goldencode.p2j.convert.ConversionDriver.main (ConversionDriver.java:1022)
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:11 [KW_MENU_ITM
id=103079215121]
[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] ... 5 more
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:11
[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.RuleContainer.apply (RuleContainer.java:585)
[java] at com.goldencode.p2j.pattern.RuleSet.apply (RuleSet.java:98)
[java] at com.goldencode.p2j.pattern.AstWalker.walk (AstWalker.java:262)
[java] ... 10 more
[java] Caused by: java.lang.NullPointerException
[java] at java.util.TreeMap.compare (TreeMap.java:1294)
[java] at java.util.TreeMap.put (TreeMap.java:538)
[java] at java.util.TreeSet.add (TreeSet.java:255)
[java] at com.goldencode.expr.CE10578.execute (Unknown Source)
[java] at com.goldencode.expr.Expression.execute (Expression.java:391)
[java] ... 17 more

```

and these ones

```

#./menu/references.p
#./menu/shared_use.p
#./menu/submenus.p

```

failed with this exception type

```

compile:
[javac] Compiling 28 source files to /home/sbi/projects/testcases/uast/build/classes
[javac] /home/sbi/projects/testcases/uast/src/com/goldencode/testcases/menu/SharedUse.java:17: error: cann
ot find symbol
[javac]     SharedUseMmMenu mm = MenuWidget.importStaticSharedMenu (SharedUseMmMenu.class, "mm");
[javac]     ^
[javac]     symbol:   class SharedUseMmMenu
[javac]     location: class SharedUse
[javac] /home/sbi/projects/testcases/uast/src/com/goldencode/testcases/menu/References.java:30: error: can
not find symbol
[javac]         m.smd.getSelf().findSubMenu("sm").setLabel(m.smd.smd.getSelf().findSubMenu("sm"), new cha
racter("SSMM"));
[javac]                                     ^
[javac]     symbol:   variable smd
[javac]     location: variable smd of type ReferencesSmdSubMenu
[javac] /home/sbi/projects/testcases/uast/src/com/goldencode/testcases/menu/SharedUse.java:17: error: cann
ot find symbol
[javac]     SharedUseMmMenu mm = MenuWidget.importStaticSharedMenu (SharedUseMmMenu.class, "mm");
[javac]     ^
[javac]     symbol:   class SharedUseMmMenu
[javac]     location: class SharedUse
[javac] /home/sbi/projects/testcases/uast/src/com/goldencode/testcases/menu/Submenus.java:104: error: cann
ot find symbol
[javac]         registerTrigger(new EventList("menu-drop", mbar.move.getSelf().findSubMenu("topic"), mbar
.move.move.getSelf().findSubMenu("topic"), Submenus.this, new Trigger((Body) () ->

```



```
[javac]
^
[javac] symbol:   variable move
[javac] location: variable move of type SubmenusMoveSubMenu
[javac] 4 errors
```

BUILD FAILED

but these tests

```
#./menu/menu_title_color_attributes.p
#./menu/popup_menu_title_color_attributes.p
```

failed with this exception type

```
[java] ./menu/popup_menu_title_color_attributes.p
[java] Elapsed job time: 00:00:04.860
[java] EXPRESSION EXECUTION ERROR:
[java] -----
[java]   throwException(errmsg)
[java]   ^ { Unsupported method or attribute KW_TITL_BGC. [COLON id <214748365042> 41:19] }
[java] -----
[java] ERROR:
[java] com.goldencode.p2j.pattern.TreeWalkException: ERROR! Active Rule:
[java] -----
[java]           RULE REPORT
[java] -----
[java] Rule Type :   DESCENT
[java] Source AST: [ : ] BLOCK/ASSIGNMENT/ASSIGN/EXPRESSION/COLON/ @41:19 {214748365042}
[java] Copy AST  : [ : ] BLOCK/ASSIGNMENT/ASSIGN/EXPRESSION/COLON/ @41:19 {214748365042}
[java] Condition :   throwException(errmsg)
[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:563)
[java]   at com.goldencode.p2j.convert.ConversionDriver.back(ConversionDriver.java:590)
[java]   at com.goldencode.p2j.convert.TransformDriver.executeJob(TransformDriver.java:906)
[java]   at com.goldencode.p2j.convert.ConversionDriver.main(ConversionDriver.java:1022)
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:1 [COLON id=2147
48365042]
[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
```

and it looks expected.

The other tests from testcases/uast/menu are converted and compiled:

```
./menu/alt.p
./menu/ambiguity.p
./menu/but_handle.p
./menu/cases.p
./menu/children.p
./menu/chui_menu_2_purpose.p
./menu/chui_menu_bar_accelerator.p
./menu/chui_menu_bar.p
./menu/chui_menu_bar_submenu_same.p
./menu/chui_menu_popup_accelerator.p
./menu/chui_menu_popup.p
./menu/chui_menu_popup_submenu_same.p
./menu/chui_menu_popup_test_like.p
./menu/delete.p
./menu/disabled_enabled.p
```

```
./menu/dynamic1.p
./menu/dynamic.p
./menu/dyn_parent.p
./menu/fmenu.p
./menu/frame.p
./menu/frames1.p
./menu/frames.p
./menu/gui_menubar_trigger.p
./menu/keycode.p
./menu/like_exm.p
./menu/like_m.p
./menu/like_simple.p
./menu/like_sm.p
./menu/menu1.p
./menu/menubar_no_endkey.p
./menu/menubar.p
./menu/menu_drop.p
./menu/menu_drop_woio.p
./menu/menuevents.p
./menu/menuitems1.p
./menu/menuitems.p
./menu/menu_mouse.p
./menu/menu_sizes.p
./menu/mix.p
./menu/mnemlast.p
./menu/mnemonic.p
./menu/npe.p
./menu/popup_ext.p
./menu/popup_simple_npe.p
./menu/popup_simple.p
./menu/reference1.p
./menu/semicolon.p
./menu/shared_new.p
./menu/simple_frame.p
./menu/simple_mi.p
./menu/simple.p
./menu/simple_sml.p
./menu/simple_sm.p
./menu/sm_mnemonic.p
./menu/togglebox.p
./menu/triggers.p
./menu/umbiguity.p
./menu/win_menu_2_purpose.p
./menu/win_menu_bar_accelerator.p
./menu/win_menu_bar.p
./menu/win_menu_bar_submenu_same.p
./menu/win_menu_popup_accelerator.p
./menu/win_menu_popup.p
./menu/win_menu_popup_submenu_same.p
```

Working to fix

```
#./menu/references.p
#./menu/shared_use.p
#./menu/submenus.p
```

#27 - 03/20/2020 09:20 AM - Roger Borrello

It seems like you are getting close. Keep up the good work. If you need a hand on anything, please post.

#28 - 03/20/2020 11:10 AM - Sergey Ivanovskiy

These files

```
./menu/references.p  
./menu/shared_use.p  
./menu/submenus.p
```

are converted with the trunc version incorrectly too:

```
compile:  
[javac] Compiling 28 source files to /home/sbi/projects/testcases/uast/build/classes  
[javac] /home/sbi/projects/testcases/uast/src/com/goldencode/testcases/menu/SharedUse.java:17: error: cannot find symbol  
[javac]     SharedUseMmMenu mm = MenuWidget.importStaticSharedMenu(SharedUseMmMenu.class, "mm");  
[javac]     ^  
[javac]     symbol:   class SharedUseMmMenu  
[javac]     location: class SharedUse  
[javac] /home/sbi/projects/testcases/uast/src/com/goldencode/testcases/menu/References.java:30: error: cannot find symbol  
[javac]     m.smd.getSelf().findSubMenu("sm").setLabel(m.smd.smd.getSelf().findSubMenu("sm"), new character("SSMM"));  
[javac]     ^  
[javac]     symbol:   variable smd  
[javac]     location: variable smd of type ReferencesSmdSubMenu  
[javac] /home/sbi/projects/testcases/uast/src/com/goldencode/testcases/menu/SharedUse.java:17: error: cannot find symbol  
[javac]     SharedUseMmMenu mm = MenuWidget.importStaticSharedMenu(SharedUseMmMenu.class, "mm");  
[javac]     ^  
[javac]     symbol:   class SharedUseMmMenu  
[javac]     location: class SharedUse  
[javac] /home/sbi/projects/testcases/uast/src/com/goldencode/testcases/menu/Submenus.java:104: error: cannot find symbol  
[javac]     registerTrigger(new EventList("menu-drop", mbar.move.getSelf().findSubMenu("topic"), mbar.move.move.getSelf().findSubMenu("topic")), Submenus.this, new Trigger((Body) () ->  
[javac]     ^  
[javac]     symbol:   variable move  
[javac]     location: variable move of type SubmenusMoveSubMenu  
[javac] 4 errors
```

BUILD FAILED

Thus my changes don't regress them.

I encountered a strange annotation generated for menu item

```
<annotation datatype="java.util.ArrayList" key="label">
  <listitem datatype="java.lang.String" value="&quot;&quot;"/>
</annotation>
```

in this ast

```
<ast col="4" id="12884901978" line="14" text="menu-item" type="KW_MENU_ITM">
  <annotation datatype="java.lang.String" key="name" value="empty2"/>
  <annotation datatype="java.lang.Long" key="type" value="430"/>
  <annotation datatype="java.util.ArrayList" key="label">
    <listitem datatype="java.lang.String" value="&quot;&quot;"/>
  </annotation>
  <annotation datatype="java.lang.Boolean" key="widdef" value="true"/>
  <annotation datatype="java.lang.String" key="javaname" value="empty2"/>
  <ast col="14" id="12884901980" line="14" text="empty2" type="SYMBOL"/>
  <ast col="21" id="12884901982" line="14" text="label" type="KW_LABEL">
    <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
    <ast col="27" id="12884901984" line="14" text="&quot;&quot;" type="STRING">
      <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
    </ast>
  </ast>
</ast>
```

that produces this exception

```
[java] Frame Generator
[java] -----
[java]
[java] ./menu/win_menu_bar_same.p
[java] Elapsed job time: 00:00:00.390
[java]
[java] -----
[java] Menu Generator
[java] -----
[java]
[java] ./menu/win_menu_bar_same.p
[java] Creating separate file: WinMenuBarSameSameSubMenu ./menu/WinMenuBarSameSameSubMenu
[java] Elapsed job time: 00:00:00.081
[java] EXPRESSION EXECUTION ERROR:
[java] -----
[java] uiStrings.add(label)
[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: [ menu-item ] BLOCK/STATEMENT/DEFINE_SUB_MENU/KW_MENU_ITM/ @13:4 {12884901974}
[java] Copy AST : [ menu-item ] BLOCK/STATEMENT/DEFINE_SUB_MENU/KW_MENU_ITM/ @13:4 {12884901974}
[java] Condition : uiStrings.add(label)
[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:563)
[java] at com.goldencode.p2j.convert.ConversionDriver.generateMenus(ConversionDriver.java:774)
[java] at com.goldencode.p2j.convert.ConversionDriver.back(ConversionDriver.java:581)
[java] at com.goldencode.p2j.convert.TransformDriver.executeJob(TransformDriver.java:906)
[java] at com.goldencode.p2j.convert.ConversionDriver.main(ConversionDriver.java:1022)
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:11 [KW_MENU_ITM
id=12884901974]
[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] ... 5 more
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:11
[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.RuleContainer.apply(RuleContainer.java:585)
[java] at com.goldencode.p2j.pattern.RuleSet.apply(RuleSet.java:98)
[java] at com.goldencode.p2j.pattern.AstWalker.walk(AstWalker.java:262)
[java] ... 10 more
[java] Caused by: java.lang.NullPointerException
[java] at java.util.TreeMap.put(TreeMap.java:563)
[java] at java.util.TreeSet.add(TreeSet.java:255)
[java] at com.goldencode.expr.CE9272.execute(Unknown Source)
[java] at com.goldencode.expr.Expression.execute(Expression.java:391)
[java] ... 17 more
```

BUILD FAILED

Working on this part too.

#30 - 03/20/2020 02:09 PM - Sergey Ivanovskiy

- File 4589_6.patch added

This diff 4589_6.patch fixed these tests (see [#4589-28](#))

```
./menu/references.p
./menu/submenus.p
```

but

```
./menu/shared_use.p
```

has another root cause that is incorrect resolution of the shared menu name. Please look at these two simple tests: ./menu/shared_new.p and ./menu/shared_use.p.

May be this issue could be easily fixed?

Where the code of shared_new.p is this one

```
define new shared menu mm title "Menu title".  
  
run "shared_use.p"
```

and the code of shared_use.p is

```
define shared menu mm.  
  
message string(menu mm:title).
```

#31 - 03/20/2020 03:01 PM - Roger Borrello

Are you getting a conversion error or runtime?

I've made a change to the shared_new.p to make is easier to run on both Linux and Win32. It is checked in.

```
define new shared menu mm title "Menu title".  
  
def var path as char init "testcases/uast/menu/".  
def var pname as char init "shared_use.p".  
def var progname as char.  
progname = "z:/" + path + pname.  
if opsys = "unix" then  
    progname = "~" + path + progname.  
if opsys <> "win32" then  
    message opsys "is an unsupported OS".  
else  
    run value(progname).  
message "Done."
```

#32 - 03/20/2020 03:21 PM - Sergey Ivanovskiy

Committed revision 11381 (4231b) fixed case-insensitive issue for menu identifiers but the shared menu and labels issues are present in the trunc now. I am working to fix them [#4589-29](#) and [#4589-30](#).

Hynek, please review these changes 11381 (4231b) as you worked on the main menu conversion changes.

Roger Borrello wrote:

Are you getting a conversion error or runtime?

This is the menu generation issue for shared menus because `./menu/shared_new.p` and `./menu/shared_use.p` are converted respectively into

```
package com.goldencode.testcases.menu;

import com.goldencode.p2j.util.*;
import com.goldencode.p2j.ui.*;
import com.goldencode.testcases.ui.menu.*;

import static com.goldencode.p2j.util.BlockManager.*;

/**
 * Business logic (converted to Java from the 4GL source code
 * in menu/shared_new.p).
 */
public class SharedNew
{
    SharedNewMmMenu mm = MenuWidget.createStaticSharedMenu(SharedNewMmMenu.class, "mm");

    /**
     * External procedure (converted to Java from the 4GL source code
     * in menu/shared_new.p).
     */
    public void execute()
    {
        externalProcedure(SharedNew.this, new Block((Body) () ->
        {
            ControlFlowOps.invoke("shared_use.p");
        }));
    }
}
```

and

```
package com.goldencode.testcases.menu;

import com.goldencode.p2j.util.*;
import com.goldencode.p2j.ui.*;
import com.goldencode.testcases.ui.menu.*;

import static com.goldencode.p2j.util.BlockManager.*;
import static com.goldencode.p2j.util.Character.*;
import static com.goldencode.p2j.ui.LogicalTerminal.*;

/**
 * Business logic (converted to Java from the 4GL source code
 * in menu/shared_use.p).
 */
public class SharedUse
{
    SharedUseMmMenu mm = MenuWidget.importStaticSharedMenu(SharedUseMmMenu.class, "mm");

    /**
     * External procedure (converted to Java from the 4GL source code
     * in menu/shared_use.p).
     */
    public void execute()
    {
        externalProcedure(SharedUse.this, new Block((Body) () ->
        {
            message(valueOf(mm.getSelf().getTitle()));
        }));
    }
}
```

where SharedUseMmMenu.class should be SharedNewMmMenu.class. SharedUseMmMenu.java is not generated (correct because it is a menu reference of the shared menu defined in SharedNewMmMenu.java). Please correct if it is not true.

#34 - 03/20/2020 03:50 PM - Roger Borrello

I converted/compiled the customer code with your 4589_6.patch updates. Excellent! Did you remove all your debug printf\n statements before you checked in?

I spoke to Greg and he said for you to make a separate task for this last issue related to shared menus.

#35 - 03/23/2020 03:55 AM - Hynek Cihlar

Sergey Ivanovskiy wrote:

where SharedUseMmMenu.class should be SharedNewMmMenu.class. SharedUseMmMenu.java is not generated (correct because it is a menu reference of the shared menu defined in SharedNewMmMenu.java). Please correct if it is not true.

Did you confirm this in native 4GL?

#36 - 03/23/2020 05:19 AM - Sergey Ivanovskiy

Hynek Cihlar wrote:

Sergey Ivanovskiy wrote:

where SharedUseMmMenu.class should be SharedNewMmMenu.class. SharedUseMmMenu.java is not generated (correct because it is a menu reference of the shared menu defined in SharedNewMmMenu.java). Please correct if it is not true.

Did you confirm this in native 4GL?

Yes, if the propath is setup for this program shared_use.p, then shared_new.p is executed by Progress 4GL correctly (works properly)

```
define new shared menu mm title "Menu title".
```

```
run "shared_use.p"
```


#37 - 03/23/2020 07:51 AM - Sergey Ivanovskiy

Roger Borrello wrote:

I converted/compiled the customer code with your 4589_6.patch updates. Excellent! Did you remove all your debug printf\n statements before you checked in?

I spoke to Greg and he said for you to make a separate task for this last issue related to shared menus.

I committed rev 11384 (4231b) that fixed menu keys and labels null pointer exceptions for these test cases:

```
./menu/chui_menu_bar_same.p  
./menu/chui_menu_popup_same.p  
./menu/empty_labels.p  
./menu/win_menu_bar_same.p  
./menu/win_menu_popup_same.p
```

Now they are converted and compiled.

#38 - 03/23/2020 08:53 AM - Roger Borrello

I saw the Redmine entries about the regression, and I am grateful you found a better solution. The customer code still converts and compiles properly. Great work, thank you!

The shared menu is still broken, but secondary from my perspective, since the customer is not using shared menus.

#39 - 03/23/2020 09:03 AM - Greg Shah

As long as the regression in the other customer's application is also fixed, then any remaining issues can be moved into new tasks.

Sergey: Please create the needed tasks and link them here as related.

#40 - 03/23/2020 10:08 AM - Sergey Ivanovskiy

- Related to Bug #4598: define shared menu statement is converted using new name to reference the shared menu added

#41 - 03/24/2020 05:12 AM - Sergey Ivanovskiy

The code is still needed to fix ACCELERATOR assignments for menu. I added new test case test-accelerator-1.p into testcases/uast/menu. This test is broken now.

```
IF AVAILABLE acclrtrs THEN
```

The AST tree after applying annotation rules is

```

<ast col="0" id="12884902267" line="0" text="statement" type="STATEMENT">
  <ast col="1" id="12884902268" line="63" text="IF" type="KW_IF">
    <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
    <annotation datatype="java.lang.Long" key="peerid" value="120259084380"/>
    <ast col="0" id="12884902270" line="0" text="expression" type="EXPRESSION">
      <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
      <annotation datatype="java.lang.Long" key="peerid" value="120259084381"/>
      <ast col="4" id="12884902271" line="63" text="AVAILABLE" type="FUNC_LOGICAL">
        <annotation datatype="java.lang.Long" key="oldtype" value="531"/>
        <annotation datatype="java.lang.Boolean" key="builtin" value="true"/>
        <annotation datatype="java.lang.Boolean" key="returnsunknown" value="false"/>
        <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
        <annotation datatype="java.lang.Long" key="peerid" value="120259084382"/>
        <ast col="14" id="12884902273" line="63" text="acclrtrs" type="TEMP_TABLE">
          <annotation datatype="java.lang.String" key="schemaname" value="acclrtrs"/>
          <annotation datatype="java.lang.String" key="bufname" value="acclrtrs"/>
          <annotation datatype="java.lang.String" key="dbname" value=""/>
          <annotation datatype="java.lang.Long" key="recordtype" value="14"/>
          <annotation datatype="java.lang.Long" key="param_index" value="0"/>
          <annotation datatype="java.lang.String" key="bufrefkey" value="acclrtrs,acclrtrs,-1"/>
          <annotation datatype="java.lang.Long" key="bufreftype" value="21"/>
          <annotation datatype="java.lang.String" key="uniquename" value="acclrtrs_acclrtrs"/>
          <annotation datatype="java.lang.Long" key="refid" value="12884902309"/>
          <annotation datatype="java.lang.Long" key="peerid" value="120259084383"/>
        </ast>
      </ast>
    </ast>
  </ast>
  <ast col="23" id="12884902275" line="63" text="THEN" type="KW_THEN">
    <annotation datatype="java.lang.Long" key="peerid" value="120259084384"/>
    <ast col="0" id="12884902277" line="0" text="block" type="BLOCK">
      <annotation datatype="java.lang.Boolean" key="recordscoping" value="false"/>
      <annotation datatype="java.lang.Long" key="peerid" value="120259084385"/>
      <ast col="0" id="12884902278" line="0" text="assignment" type="ASSIGNMENT">
        <ast col="32" id="12884902279" line="64" text="=" type="ASSIGN">
          <annotation datatype="java.lang.Long" key="peerid" value="120259084386"/>
          <ast col="19" id="12884902282" line="64" text=":" type="COLON">
            <ast col="1" id="12884902283" line="64" text="MENU-ITEM" type="KW_MENU_ITM">
              <ast col="11" id="12884902285" line="64" text="m_Search" type="WID_MENU_ITM"/>
            </ast>
            <ast col="20" id="12884902286" line="64" text="ACCELERATOR" type="ATTR_CHAR">
              <annotation datatype="java.lang.Long" key="oldtype" value="936"/>
              <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
            </ast>
          </ast>
        </ast>
        <ast col="0" id="12884902287" line="0" text="expression" type="EXPRESSION">
          <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
          <ast col="34" id="12884902288" line="64" text="acclrtrs.func_key" type="FIELD_CHAR">
            <annotation datatype="java.lang.Long" key="oldtype" value="6"/>
            <annotation datatype="java.lang.String" key="schemaname" value="acclrtrs.func_key"/>
            <annotation datatype="java.lang.String" key="bufname" value="acclrtrs"/>
            <annotation datatype="java.lang.String" key="dbname" value=""/>
            <annotation datatype="java.lang.Long" key="recordtype" value="14"/>
            <annotation datatype="java.lang.String" key="name" value="acclrtrs.func_key"/>
            <annotation datatype="java.lang.Long" key="type" value="402"/>
            <annotation datatype="java.lang.Long" key="support_level" value="16400"/>
            <annotation datatype="java.lang.Boolean" key="is_meta" value="false"/>
            <annotation datatype="java.lang.String" key="fieldname" value="funcKey"/>
            <annotation datatype="java.lang.String" key="bufrefkey" value="acclrtrs,acclrtrs,-1"/>
            <annotation datatype="java.lang.Long" key="bufreftype" value="21"/>
            <annotation datatype="java.lang.String" key="uniquename" value="acclrtrs_acclrtrs"/>
            <annotation datatype="java.lang.Long" key="refid" value="12884902309"/>
            <annotation datatype="java.lang.String" key="methodtxt" value="getFuncKey"/>
            <annotation datatype="java.lang.Long" key="peerid" value="120259084387"/>
          </ast>
        </ast>
      </ast>
    </ast>
  </ast>
</ast>

```

```
</ast>
</ast>
```

#42 - 03/24/2020 05:37 AM - Sergey Ivanovskiy

This code

```
MENU-ITEM m_Search:SENSITIVE = false.
```

is broken too. Working on this case too.

#43 - 03/24/2020 06:07 AM - Sergey Ivanovskiy

The AST of menu item in the assignment expression [#4589-41](#) missed <annotation datatype="java.lang.String" key="in_wid_menu" .../>

#44 - 03/24/2020 07:18 AM - Sergey Ivanovskiy

Sergey Ivanovskiy wrote:

The AST of menu item in the assignment expression [#4589-41](#) missed <annotation datatype="java.lang.String" key="in_wid_menu" .../>

Please review. It was fixed in rev 11387 (4231b) according to standalone tests from testcases/uast/menu.

#45 - 03/25/2020 07:53 AM - Hynek Cihlar

Sergey, I think I stepped on another error during <large_app> conversion caused by the menu changes.

```
[java] ./abl/skeleton/dotnet/ADODB/AffectEnum.cls
[java] Elapsed job time: 00:00:14.018
[java] EXPRESSION EXECUTION ERROR:
[java] -----
[java] proname = getNoteString("name").toLowerCase()
[java]                ^ { java.lang.NullPointerException }
[java] -----
[java] EXPRESSION EXECUTION ERROR:
[java] -----
[java] execLib("create_javaname")
[java] ^ { Expression execution error @1:33 }
[java] -----
[java] ERROR:
[java] com.goldencode.p2j.pattern.TreeWalkException: ERROR! Active Rule:
[java] -----
[java]         RULE REPORT
[java] -----
[java] Rule Type :    WALK
[java] Source AST: [ adAffectCurrent ] BLOCK/ENUM_DEF/BLOCK/DEFINE_ENUM/EQUALS/ENUM_VALUE/ @4:7 {1460288
88080}
[java] Copy AST  : [ adAffectCurrent ] BLOCK/ENUM_DEF/BLOCK/DEFINE_ENUM/EQUALS/ENUM_VALUE/ @4:7 {1460288
88080}
[java] Condition : proname = getNoteString("name").toLowerCase()
[java] Loop       : false
[java] --- END RULE REPORT ---
```

```

[java]
[java]
[java]
[java] at com.goldencode.p2j.pattern.PatternEngine.run(PatternEngine.java:1070)
[java] at com.goldencode.p2j.convert.TransformDriver.processTrees(TransformDriver.java:563)
[java] at com.goldencode.p2j.convert.ConversionDriver.back(ConversionDriver.java:565)
[java] at com.goldencode.p2j.convert.TransformDriver.executeJob(TransformDriver.java:906)
[java] at com.goldencode.p2j.convert.ConversionDriver.main(ConversionDriver.java:1022)
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:1 [ENUM_VALUE id
=146028888080]
[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 @1:1
[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.RuleContainer.apply(RuleContainer.java:585)
[java] at com.goldencode.p2j.pattern.RuleSet.apply(RuleSet.java:98)
[java] at com.goldencode.p2j.pattern.AstWalker.walk(AstWalker.java:262)
[java] ... 9 more
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:33
[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.NamedFunction.execute(NamedFunction.java:450)
[java] at com.goldencode.p2j.pattern.AstSymbolResolver.execute(AstSymbolResolver.java:712)
[java] at com.goldencode.p2j.pattern.CommonAstSupport$Library.execLib(CommonAstSupport.java:1678)
[java] at com.goldencode.expr.CE8336.execute(Unknown Source)
[java] at com.goldencode.expr.Expression.execute(Expression.java:391)
[java] ... 16 more
[java] Caused by: java.lang.NullPointerException
[java] at com.goldencode.expr.CE8337.execute(Unknown Source)
[java] at com.goldencode.expr.Expression.execute(Expression.java:391)
[java] ... 22 more

```

#46 - 03/25/2020 08:04 AM - Greg Shah

This is not a problem with menu conversion. The skeletons should never be converted. They are supposed to be excluded from conversion (in the ignore list). Make sure you convert with the blacklist.

#47 - 03/25/2020 08:13 AM - Hynek Cihlar

Hynek Cihlar wrote:

Sergey, I think I stepped on another error during <large_app> conversion caused by the menu changes.

Sorry, false alarm.

#48 - 03/25/2020 08:13 AM - Hynek Cihlar

Greg Shah wrote:

This is not a problem with menu conversion. The skeletons should never be converted. They are supposed to be excluded from conversion (in the ignore list). Make sure you convert with the blacklist.

Yes, this was the issue.

#49 - 03/25/2020 10:36 AM - Greg Shah

Code Review Task Branch 4231b Revision 11387

It seems wrong to use the javaname (even a lowercased one) as a key to the map of javanames for sub-menus. For menus it seems that we use the lowercased 4GL name as the key. This seems correct. The sub-menu approach seems wrong.

#50 - 03/25/2020 02:32 PM - Sergey Ivanovskiy

Greg, I compared the previous version and the current changes and found that this map used submenu = names.convert(text, names.variable) for submenu keys and the new changes shouldn't change it because the result of find_sm_menu is important to be javaname especially when it uses these compound patterns name1[name2][name3] for menu java names. For an example in this rule

```
<action>menu = execLib("find_sm_menu", names.convert(text.toLowerCase(), names.variable))</action>
<!--<action>println("%s = execLib('find_sm_menu', names.convert(%s, names.variable))", menu, text.to
LowerCase())</action-->
<rule>menu != null
  <action>putNote("first-menu-path", menu)</action>
  <action>putNote("in_wid_menu", menu)</action>
</rule>
```

Please look at this part of changes. These new changes continue to use javaname as menu and submenu keys

```

@@ -169,16 +190,17 @@
    <rule>type == prog.wid_sub_menu and
        parent.type == prog.kw_sub_menu

-        <action>submenu = names.convert(text, names.variable)</action>
-
+        <action>submenu = names.convert(text.toLowerCase(), names.variable)</action>
+        <!--<action>println("%s = names.convert(%s, names.variable)", submenu, text.toLowerCase())</action>
-->
+        <action>menukey = submenu.toLowerCase()</action>
    <rule>parent.parent != null and
        (parent.parent.type == prog.define_menu or
         parent.parent.type == prog.define_sub_menu) and
-        !sm_menus.containsKey(submenu)
+        !sm_menus.containsKey(menukey)
        <action>menu = parent.parent.getAnnotation("name")</action>
        <action>menu = names.convert(menu, names.variable)</action>
        <!--<action>println("adding %s to %s", submenu, menu)</action>-->
-        <action>sm_menus.put(submenu, menu)</action>
+        <!--<action>println("key %s, adding %s to %s", menukey, submenu, menu)</action>-->
+        <action>sm_menus.put(menukey, menu)</action>
    </rule>

</rule>
@@ -191,19 +213,30 @@

```

The following code are the find_sm_menu changes

```

@@ -119,12 find_sm_menu+126,18 @@
    <return name="cur" type="java.lang.String" />

    <rule>true
-        <action>parnt = sm_menus.get(sm)</action>
+        <action>menukey = sm.toLowerCase()</action>
+        <action>parnt = sm_menus.get(menukey)</action>
+        <!--<action>println("find_sm_menu-> %s = sm_menus.get(%s)", parnt, menukey)</action>-->
        <action>cur = parnt</action>
-        <while>parnt != null and sm_menus.containsKey(parnt)
-            <!--<action>println("parnt: %s, sm_menus.get(parnt): %s", parnt, sm_menus.get(parnt))</action>
-->
-            <action>cur = sprintf("%s.%s", sm_menus.get(parnt), parnt)</action>
-            <action>parnt = sm_menus.get(parnt)</action>
+        <while>parnt != null
+            <action>menukey = parnt.toLowerCase()</action>
+            <rule>sm_menus.containsKey(menukey)
+                <!--<action>println("parnt: %s, sm_menus.get(parnt): %s", parnt, sm_menus.get(menukey))</a
ction>-->
+                <action>cur = sprintf("%s.%s", sm_menus.get(menukey), parnt)</action>
+                <action>parnt = sm_menus.get(menukey)</action>
+                <action on="false">parnt = null</action>
+            </rule>
        </while>
    </rule>
</function>
@@ -135,7 +148,8 @@

```

#51 - 03/25/2020 03:21 PM - Greg Shah

If everything is working so far and there are no regressions, then I am OK with it.

#52 - 03/25/2020 03:33 PM - Sergey Ivanovskiy

The current changes were checked with testcases/uast/menu tests that passed except 4 known cases:

```
./menu/menu_title_color_attributes.p  
./menu/popup_menu_title_color_attributes.p
```

failed with this exception type

```
[java] ./menu/popup_menu_title_color_attributes.p  
[java] Elapsed job time: 00:00:04.860  
[java] EXPRESSION EXECUTION ERROR:  
[java] -----  
[java] throwException(errmsg)  
[java] ^ { Unsupported method or attribute KW_TITL_BGC. [COLON id <214748365042> 41:19] }  
[java] -----  
[java] ERROR:  
[java] com.goldencode.p2j.pattern.TreeWalkException: ERROR! Active Rule:  
[java] -----  
[java] RULE REPORT  
[java] -----  
[java] Rule Type : DESCENT  
[java] Source AST: [ : ] BLOCK/ASSIGNMENT/ASSIGN/EXPRESSION/COLON/ @41:19 {214748365042}  
[java] Copy AST : [ : ] BLOCK/ASSIGNMENT/ASSIGN/EXPRESSION/COLON/ @41:19 {214748365042}  
[java] Condition : throwException(errmsg)  
[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:563)  
[java] at com.goldencode.p2j.convert.ConversionDriver.back(ConversionDriver.java:590)  
[java] at com.goldencode.p2j.convert.TransformDriver.executeJob(TransformDriver.java:906)  
[java] at com.goldencode.p2j.convert.ConversionDriver.main(ConversionDriver.java:1022)  
[java] Caused by: com.goldencode.expr.ExpressionException: Expression execution error @1:1 [COLON id=2147  
48365042]  
[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
```

and for these ./menu/shared_new.p and ./menu/shared_use.p there was created [#4598](#).

#53 - 03/25/2020 03:42 PM - Greg Shah

The current changes were checked with testcases/uast/menu tests that passed except 4 known cases:

Roger is working on [#4393](#) which will resolve these.

#54 - 06/20/2020 12:11 PM - Greg Shah

- Status changed from New to Closed

- % Done changed from 0 to 100

Task branch 4231b has been merged to trunk as revision 11347.

Files

4589_1.patch	5.72 KB	03/18/2020	Sergey Ivanovskiy
4589_2.patch	6.88 KB	03/18/2020	Sergey Ivanovskiy
4589_4.patch	9.63 KB	03/19/2020	Sergey Ivanovskiy
4589_5.patch	10.1 KB	03/20/2020	Sergey Ivanovskiy
4589_6.patch	12.3 KB	03/20/2020	Sergey Ivanovskiy