

## User Interface - Bug #3371

### NPE in AbstractGuiDriver in client log

11/17/2017 11:36 AM - Ovidiu Maxiniuc

<b>Status:</b>	Closed	<b>Start date:</b>	
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Ovidiu Maxiniuc	<b>% Done:</b>	100%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>		<b>case_num:</b>	
<b>billable:</b>	No	<b>version:</b>	
<b>vendor_id:</b>	GCD		
<b>Description</b>			

### History

#### #1 - 11/17/2017 11:45 AM - Ovidiu Maxiniuc

- Status changed from New to WIP

Found following exception in client log:

```
Caused by: java.lang.NullPointerException
    at com.goldencode.p2j.ui.client.gui.driver.AbstractGuiDriver.getTextWidths(AbstractGuiDriver.java:1665
)
    at com.goldencode.p2j.ui.client.gui.driver.AbstractGuiDriver.getTextWidths(AbstractGuiDriver.java:1688
)
    at com.goldencode.p2j.ui.client.gui.EditorGuiImpl.computeLineWidths(EditorGuiImpl.java:3329)
    at com.goldencode.p2j.ui.client.gui.EditorGuiImpl.maxLineWidthNative(EditorGuiImpl.java:3079)
    at com.goldencode.p2j.ui.client.gui.EditorGuiImpl.access$2500(EditorGuiImpl.java:129)
    at com.goldencode.p2j.ui.client.gui.EditorGuiImpl$EditorScrollContainer.getScrollDimension(EditorGuiIm
pl.java:3842)
    at com.goldencode.p2j.ui.client.gui.ScrollPaneGuiImpl.adjustScrollLayoutImpl(ScrollPaneGuiImpl.java:72
8)
    at com.goldencode.p2j.ui.chui.ThinClient.eventBracket(ThinClient.java:15416)
    at com.goldencode.p2j.ui.client.gui.ScrollPaneGuiImpl.adjustScrollLayout(ScrollPaneGuiImpl.java:226)
    at com.goldencode.p2j.ui.client.gui.EditorGuiImpl.processScrollPane(EditorGuiImpl.java:2972)
    at com.goldencode.p2j.ui.client.gui.EditorGuiImpl.afterConfigUpdate(EditorGuiImpl.java:1409)
    at com.goldencode.p2j.ui.client.gui.EditorGuiImpl.afterConfigUpdate(EditorGuiImpl.java:129)
    at com.goldencode.p2j.ui.ConfigSyncManager.markScopeEnd(ConfigSyncManager.java:298)
    at com.goldencode.p2j.ui.ConfigManager.syncConfigChanges(ConfigManager.java:549)
    at com.goldencode.p2j.ui.ConfigManager.replaceConfig(ConfigManager.java:436)
    at com.goldencode.p2j.ui.client.Frame.applyConfig(Frame.java:5530)
    at com.goldencode.p2j.ui.client.WidgetRegistry.reconstructWidget(WidgetRegistry.java:246)
    at com.goldencode.p2j.ui.client.WidgetRegistry.pushDefinition(WidgetRegistry.java:647)
    at com.goldencode.p2j.ui.chui.ThinClient.lambda$pushOneDef$22(ThinClient.java:8617)
    at com.goldencode.p2j.ui.chui.ThinClient.eventBracket(ThinClient.java:15416)
    at com.goldencode.p2j.ui.chui.ThinClient.eventDrawingBracket(ThinClient.java:15360)
    at com.goldencode.p2j.ui.chui.ThinClient.pushOneDef(ThinClient.java:8608)
    at com.goldencode.p2j.ui.chui.ThinClient.pushScreenDefinition(ThinClient.java:8551)
    at sun.reflect.GeneratedMethodAccessor9.invoke(Unknown Source)
    at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
    at java.lang.reflect.Method.invoke(Method.java:498)
    [...]
```

The client is returned to login screen.

#### Investigations:

The ew's is null when we are not in drawing bracket. If we look in the stack trace, there is one eventDrawingBracket in stack.

#### Solution:

I forced a dedicated eventDrawingBracket in ScrollPaneGuiImpl.adjustScrollLayout so the code looks now like this:

```

ThinClient tc = ThinClient.getInstance();
tc.eventBracket(true,
    () -> tc.eventDrawingBracket(this,
        this::adjustScrollLayoutImpl));

```

The screen does not crashes any more. Yet, I am not sure of the correctness of this patch.

## #2 - 11/20/2017 03:11 PM - Greg Shah

Code Review Task Branch 3369a Revision 11211

I generally OK with the changes. The one thing that is not clear to me is that the `TC.eventDrawingBracket()` already uses `TC.eventBracket()` in its core implementation. I wonder what is going on here that requires this approach.

Constantin: thoughts?

## #3 - 11/20/2017 05:35 PM - Constantin Asofiei

Ovidiu, I would rather ensure that `EditorGuiImpl.computeLineWidths` has a window selected (i.e. is bracketed in `gd.selectWindow` and `gd.releaseWindow` calls). The locations from where `ScrollPaneGuiImpl.adjustScrollLayout` is called doesn't necessary need an explicit draw. Also, there are two methods `computeLineWidths`, I think both require the changes.

## #4 - 11/21/2017 08:33 AM - Ovidiu Maxiniuc

I tried to move the code in a `withSelectedWindow()`, but the widget is not fully reconstructed so the parent is not yet set. I'm getting this:

```

java.lang.IllegalStateException: Widget 995 is not attached to a Window instance.
    at com.goldencode.p2j.ui.client.widget.AbstractWidget.window(AbstractWidget.java:361)
    at com.goldencode.p2j.ui.client.gui.EditorGuiImpl.computeLineWidths(EditorGuiImpl.java:3310)
    at com.goldencode.p2j.ui.client.gui.EditorGuiImpl.maxLineWidthNative(EditorGuiImpl.java:3079)
    at com.goldencode.p2j.ui.client.gui.EditorGuiImpl.access$2500(EditorGuiImpl.java:129)
    at com.goldencode.p2j.ui.client.gui.EditorGuiImpl$EditorScrollContainer.getScrollDimension(EditorGuiImpl.java:3846)
    at com.goldencode.p2j.ui.client.gui.ScrollPaneGuiImpl.adjustScrollLayoutImpl(ScrollPaneGuiImpl.java:728)
    at com.goldencode.p2j.ui.chui.ThinClient.eventBracket(ThinClient.java:15416)
    at com.goldencode.p2j.ui.client.gui.ScrollPaneGuiImpl.adjustScrollLayout(ScrollPaneGuiImpl.java:226)
    at com.goldencode.p2j.ui.client.gui.EditorGuiImpl.processScrollPane(EditorGuiImpl.java:2972)
    at com.goldencode.p2j.ui.client.gui.EditorGuiImpl.initialize(EditorGuiImpl.java:259)
    at com.goldencode.p2j.ui.client.gui.EditorGuiImpl.initialize(EditorGuiImpl.java:129)
    at com.goldencode.p2j.ui.client.WidgetRegistry.reconstructWidget(WidgetRegistry.java:264)
    at com.goldencode.p2j.ui.client.WidgetRegistry.pushDefinition(WidgetRegistry.java:647)
    at com.goldencode.p2j.ui.chui.ThinClient.lambda$pushOneDef$22(ThinClient.java:8617)
    at com.goldencode.p2j.ui.chui.ThinClient.eventBracket(ThinClient.java:15416)
    at com.goldencode.p2j.ui.chui.ThinClient.eventDrawingBracket(ThinClient.java:15360)
    at com.goldencode.p2j.ui.chui.ThinClient.pushOneDef(ThinClient.java:8608)
    at com.goldencode.p2j.ui.chui.ThinClient.pushScreenDefinition(ThinClient.java:8551)

```

I can abort line widths computation if parent is not yet set, but in this case the line widths remain unset?

**#5 - 11/21/2017 08:41 AM - Constantin Asofiei**

Ovidiu, please try something: is EditorGuiImpl.processScrollPane called when i.e. the editor is drawn? I wonder if we just need to bypass this until the editor is realized.

**#6 - 11/21/2017 09:01 AM - Ovidiu Maxiniuc**

Constantin Asofiei wrote:

Ovidiu, please try something: is EditorGuiImpl.processScrollPane called when i.e. the editor is drawn? I wonder if we just need to bypass this until the editor is realized.

Yes, processScrollPane() is called at the end of each afterConfigUpdate() and this time the parent is already set. I suppose it's not an issue if line width are not computed at initialization. Also, from my quick investigations, parsedText is quite late set, after calling processScrollPane a dozen times (I guess this will be fixed by coalescing the config updates in a single message between server and client).

I am going to commit this change to 3369a.

**#7 - 11/23/2017 11:26 AM - Ovidiu Maxiniuc**

- Assignee set to Ovidiu Maxiniuc

- % Done changed from 0 to 90

The revision 11212 of 3369a makes sure the window is selected in EditorGuiImpl.computeLineWidths(). The exceptions are not visible in log any more.

**#8 - 11/27/2017 03:46 PM - Greg Shah**

- % Done changed from 90 to 100

- Status changed from WIP to Closed

Branch 3369a was merged to trunk as revision 11206.