

User Interface - Bug #2844

Bug # 2677 (New): fix drawing and functional differences between P2J GUI and 4GL GUI

flat status area in web client

11/13/2015 09:10 AM - Greg Shah

Status:	Closed	Start date:	
Priority:	Normal	Due date:	
Assignee:		% Done:	100%
Category:		Estimated time:	0.00 hour
Target version:	GUI Support for a Complex ADM2 App	case_num:	
billable:	No		
vendor_id:	GCD		
Description			

History

#1 - 11/13/2015 09:12 AM - Greg Shah

Most of the time, the status area draws without the inset effect in the text portion. When the tinyInput() modal window is open, the main window's status area actually does render properly. But as soon as it is dismissed, the status area "goes flat" again. This can be recreated using ask-gui.p.

This is definitely a bug in the web client. It is not clear if it is a regression due to recent web client changes in 2677a or if it was a latent web client problem that was exposed by some of the Java-side common code changes (e.g. for 3D support).

#2 - 11/16/2015 11:13 AM - Greg Shah

Two interesting findings:

1. If you watch carefully, you can see that when the window is first displayed, the status area briefly draws a properly inset version but then it will redraw as flat. This correct version is like a quick "flash" before being overdrawn.

2. If you resize the window (using the mouse to drag the lower right corner), the status area will draw properly inset. This will continue to draw properly until some kind of reset occurs. In ask-gui.p, it is only after the message update returns that the status area will "go flat" again.

#3 - 12/04/2015 04:28 AM - Sergey Ivanovskiy

The hello.p JS client drawing logs proves that this bug is due to an incorrect last clipping region that is used for the status bar drawing. I have compared logs for two cases 3-D effect is on and off correspondingly.

3-D is on - correct drawing

```
PaintPrimitives.TRANSLATE_PUSH 1; x = 4; y = 515 !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
PaintPrimitives.SET_COLOR r = 212; g = 208; b = 200
lastClippedRegion(true) = {"x":4.5,"y":515.5,"width":408,"height":541} !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
lastClippedRegion(true) = {"x":4.5,"y":515.5,"width":408,"height":541}
lastClippedRegion(true) = {"x":4.5,"y":515.5,"width":408,"height":541}
lastClippedRegion(true) = {"x":4.5,"y":515.5,"width":408,"height":541}
PaintPrimitives.FILL_RECT x = 0; y = 0; width = 400; height = 22
PaintPrimitives.SET_COLOR r = 255; g = 255; b = 255
lastClippedRegion(true) = {"x":4.5,"y":515.5,"width":408,"height":541}
PaintPrimitives.DRAW_LINE x1 = 0; y1 = 0; x2 = 399; y2 = 0
PaintPrimitives.SET_COLOR r = 128; g = 128; b = 128
lastClippedRegion(true) = {"x":4.5,"y":515.5,"width":408,"height":541}
PaintPrimitives.DRAW_LINE x1 = 7; y1 = 3; x2 = 7; y2 = 18
```

```

lastClippedRegion(true) = {"x":4.5,"y":515.5,"width":408,"height":541}
PaintPrimitives.DRAW_LINE  x1 = 8; y1 = 3; x2 = 392; y2 = 3
PaintPrimitives.SET_COLOR  r = 255; g = 255; b = 255
lastClippedRegion(true) = {"x":4.5,"y":515.5,"width":408,"height":541}
PaintPrimitives.DRAW_LINE  x1 = 393; y1 = 3; x2 = 393; y2 = 3
lastClippedRegion(true) = {"x":4.5,"y":515.5,"width":408,"height":541}
PaintPrimitives.DRAW_LINE  x1 = 8; y1 = 18; x2 = 392; y2 = 18
PaintPrimitives.SET_COLOR  r = 0; g = 0; b = 0
PaintPrimitives.SET_FONT
PaintPrimitives.SET_FONT_STYLE
PaintPrimitives.TRANSLATE_PUSH  2; x = 9; y = 3
lastClippedRegion(false) = {"x":-13,"y":-518,"width":408,"height":541}
PaintPrimitives.CLIP  3; x = 0; y = 0; width = 384; height = 17
PaintPrimitives.DRAW_STRING  text = Procedure complete. Press space bar to continue.; x = 0; y = 16; centered
= true
PaintPrimitives.NO_CLIP  2
PaintPrimitives.TRANSLATE_POP  1; x = -9; y = -3
PaintPrimitives.SET_COLOR  r = 255; g = 255; b = 255
lastClippedRegion(true) = {"x":4.5,"y":515.5,"width":408,"height":541}

```

3-D is off - incorrect drawing

```

START DRAWING CYCLE FOR WINDOW 1
lastClippedRegion(false) = undefined
PaintPrimitives.CLIP  1; x = 0; y = 0; width = 409; height = 542
lastClippedRegion(false) = {"x":0,"y":0,"width":409,"height":542}
PaintPrimitives.CLIP  2; x = 4; y = 515; width = 400; height = 22
PaintPrimitives.SET_COLOR  r = 212; g = 208; b = 200
lastClippedRegion(true) = {"x":4.5,"y":515.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":4.5,"y":515.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":4.5,"y":515.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":4.5,"y":515.5,"width":400,"height":22}
PaintPrimitives.FILL_RECT  x = 4; y = 515; width = 400; height = 22
PaintPrimitives.TRANSLATE_PUSH  1; x = 4; y = 515      ?????????????????????????????????????????????
PaintPrimitives.SET_COLOR  r = 212; g = 208; b = 200
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22} ?????????????????????????????????????????
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.FILL_RECT  x = 0; y = 0; width = 400; height = 22
PaintPrimitives.SET_COLOR  r = 255; g = 255; b = 255
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.DRAW_LINE  x1 = 0; y1 = 0; x2 = 399; y2 = 0
PaintPrimitives.SET_COLOR  r = 128; g = 128; b = 128
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.DRAW_LINE  x1 = 7; y1 = 3; x2 = 7; y2 = 18
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.DRAW_LINE  x1 = 8; y1 = 3; x2 = 392; y2 = 3
PaintPrimitives.SET_COLOR  r = 255; g = 255; b = 255
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.DRAW_LINE  x1 = 393; y1 = 3; x2 = 393; y2 = 3
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.DRAW_LINE  x1 = 8; y1 = 18; x2 = 392; y2 = 18
PaintPrimitives.SET_COLOR  r = 0; g = 0; b = 0
PaintPrimitives.SET_FONT
PaintPrimitives.SET_FONT_STYLE
PaintPrimitives.TRANSLATE_PUSH  2; x = 9; y = 3
lastClippedRegion(false) = {"x":-9,"y":-3,"width":400,"height":22}
PaintPrimitives.CLIP  3; x = 0; y = 0; width = 384; height = 17
PaintPrimitives.DRAW_STRING  text = Procedure complete. Press space bar to continue.; x = 0; y = 16; centered
= true
PaintPrimitives.NO_CLIP  2
PaintPrimitives.TRANSLATE_POP  1; x = -9; y = -3
PaintPrimitives.SET_COLOR  r = 255; g = 255; b = 255
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.FILL_POLYGON  xPoints: [379,394,394] yPoints: [19,19,4]
PaintPrimitives.SET_COLOR  r = 128; g = 128; b = 128
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.FILL_POLYGON  xPoints: [380,394,394] yPoints: [19,19,5]
PaintPrimitives.SET_COLOR  r = 212; g = 208; b = 200
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}

```

```

lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.FILL_POLYGON  xPoints: [382,394,394] yPoints: [19,19,7]
PaintPrimitives.SET_COLOR  r = 255; g = 255; b = 255
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.FILL_POLYGON  xPoints: [383,394,394] yPoints: [19,19,8]
PaintPrimitives.SET_COLOR  r = 128; g = 128; b = 128
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.FILL_POLYGON  xPoints: [384,394,394] yPoints: [19,19,9]
PaintPrimitives.SET_COLOR  r = 212; g = 208; b = 200
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.FILL_POLYGON  xPoints: [386,394,394] yPoints: [19,19,11]
PaintPrimitives.SET_COLOR  r = 255; g = 255; b = 255
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.FILL_POLYGON  xPoints: [387,394,394] yPoints: [19,19,12]
PaintPrimitives.SET_COLOR  r = 128; g = 128; b = 128
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.FILL_POLYGON  xPoints: [388,394,394] yPoints: [19,19,13]
PaintPrimitives.SET_COLOR  r = 212; g = 208; b = 200
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.FILL_POLYGON  xPoints: [390,394,394] yPoints: [19,19,15]
PaintPrimitives.SET_COLOR  r = 255; g = 255; b = 255
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.FILL_POLYGON  xPoints: [391,394,394] yPoints: [19,19,16]
PaintPrimitives.SET_COLOR  r = 212; g = 208; b = 200
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
lastClippedRegion(true) = {"x":8.5,"y":1030.5,"width":400,"height":22}
PaintPrimitives.FILL_POLYGON  xPoints: [392,394,394] yPoints: [19,19,17]
END DRAWING CYCLE FOR WINDOW 1

```

After a coordinates translation marked with ? the last clipping region becomes incorrect for the second case, but in the first case the clipping region is correct.

#4 - 12/04/2015 11:06 AM - Sergey Ivanovskiy

Found the root cause, each of the stacked clipping regions should be updated on translate/untranslate in order to save the coordinates consistency.

#5 - 12/04/2015 11:51 AM - Greg Shah

Good. Post a diff when you have a fix available.

#6 - 12/04/2015 12:18 PM - Sergey Ivanovskiy

- File *clipping_regions_1.txt* added

Greg, please review the clipping region changes, the reason is to transform all stacked clipping regions according to the new origin.

#7 - 12/04/2015 02:25 PM - Greg Shah

Code Review *clipping_regions_1.txt*

My primary concern with this change is that the each use of `adjustOrigin()` (which occurs during each `translate()` and `untranslate()`) will cause any intervening `replay()` (which occurs during `resize()`) to apply different values than were originally applied to the window.

In other words, is there ever a situation where in between a matched pair of `translate()` and `untranslate()` calls, there can be a call to `resize()`?

#8 - 12/04/2015 02:41 PM - Sergey Ivanovskiy

Code Review *clipping_regions_1.txt*

My primary concern with this change is that the each use of `adjustOrigin()` (which occurs during each `translate()` and `untranslate()`) will cause any intervening `replay()` (which occurs during `resize()`) to apply different values than were originally applied to the window.

In other words, is there ever a situation where in between a matched pair of `translate()` and `untranslate()` calls, there can be a call to `resize()`?

I think that the `resize` operation is performed only in the separate drawing circle because of `WindowGuiImpl.resizeTo(NativePoint origin, NativeDimension size, boolean raise)` implementation. If the target window is changed by the JS client, it can happen only after the drawing circle has been finished.

#9 - 12/04/2015 04:16 PM - Greg Shah

Please clean up the changes (e.g. please remove all the commented logging), add your history entry(s) and check it into task branch 1811t.

#10 - 12/05/2015 08:28 AM - Sergey Ivanovskiy

Done. Committed revision 10957.

#11 - 12/07/2015 08:33 AM - Greg Shah

The change looks good. What web GUI testcases have you checked with this?

#12 - 12/07/2015 08:57 AM - Sergey Ivanovskiy

I tested this fix with ./demo/demo_widgets.p, ./ask-gui.p, ./hello.p.

#13 - 12/07/2015 09:08 AM - Greg Shah

Please also test the following:

```
./toggle_box/gui/tbx_present.p
./combo_box/combo_box9_1.p
./rectangle/rect_test2.p
./image/image10_1.p
./button/gui_btn_test5.p
./demo/movie-ratings-dynamic.p
./window_parenting/waitfor_2wnd.p
./frame-z-order/zw1.p
```

And also test the customer's 454 testcase.

If all of these are no worse than in the trunk (and have the flat status fixed), then we will close this task.

#14 - 12/07/2015 09:52 AM - Sergey Ivanovskiy

I have started to check com.goldencode.testcases.toggle_box.gui.TbxPresent.execute with the current trunc version and found a new bug that can be reproduced by following these steps:

- 1) Resize the window to a smaller size until the scrollbars appear without thumbs and the window size is small enough to show only a one check box.
- 2) Click on any one of the displayed scrollbars buttons, then the window content disappears and there is some background browser processing that prevents any users action except close the web page!

#15 - 12/07/2015 05:30 PM - Sergey Ivanovskiy

Please also test the following:

```
./toggle_box/gui/tbx_present.p
./combo_box/combo_box9_1.p
./rectangle/rect_test2.p
./image/image10_1.p
./button/gui_btn_test5.p
./demo/movie-ratings-dynamic.p
./window_parenting/waitfor_2wnd.p
./frame-z-order/zw1.p
```

And also test the customer's 454 testcase.

If all of these are no worse than in the trunk (and have the flat status fixed), then we will close this task.

It seems that this fix don't add new bugs. The customer app is tested with OpenJDK8.

#16 - 12/07/2015 05:47 PM - Greg Shah

- Status changed from New to Closed
- % Done changed from 0 to 100

#17 - 11/16/2016 12:12 PM - Greg Shah

- Target version changed from Milestone 12 to GUI Support for a Complex ADM2 App

Files

clipping_regions_1.txt	3.73 KB	12/04/2015	Sergey Ivanovskiy
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