

Development of Statistical Graphics under Qt

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1 Naming conventions

1.1 Naming functions and layers

As Hadley suggested:

- Each layer should be named according to its function: `brush_layer`, `identify_layer`, `points_layer` etc
- The drawing function should be named `XXX_draw`: `brush_draw`, `identify_draw`, `points_draw`
- Event callbacks should be named similarly: `brush_mouse_move`, `identify_key_press`

e.g.

```
> scene = qscene()
> ## the root layer
> root_layer = qlayer(scene)
> ## draw the brush and redraw the brushed elements
> brush_draw = function(item, painter) {
+   qdrawRect(painter, ...)
+   qdrawSegment(painter, ...)
+ }
> ## locating elements within the rectangle
> brush_mouse_move = function(layer, event) {
+   pos = event$pos()
+   idx = layer$locate(qrect(...))
+ }
> ## create a layer based on the drawing function and event callback
> brush_layer = qlayer(root_layer, brush_draw, mouseMove = brush_mouse_move)
```

1.2 Naming mutaframes

Create a mutaframe for dynamic graphics by `qmutaframe()`:

```
> ## example
> x = qmutaframe(iris, .color = "black", .brushed = FALSE)
> qparallel(x)
```

2 Examples, Hints & Tricks