nklein
software development and consulting

GUIs with CL-OpenGL

(gl:enable :gui)

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Out of the Box

- CL-OpenGL, CL-GLU, and CL-GLUT provide:
  - CLOS window class with methods for: keyboard, mouse (presses, movement, wheel), joysticks, spaceballs, visibility changes, reshaping, ticks, and idle loops
  - 3D rendering primitives

If You Know OpenGL

```
glClear(GL_COLOR_BUFFER_BIT);
glColor3i( 1, 1, 1 );
gluLookAt( 0.0, 0.0, 5.0,
           0.0, 0.0, 0.0,
           0.0, 1.0, 0.0 );
glScalef( 1.0, 2.0, 1.0 );
glutWireCube( 1.0 );

(gl:clear :color-buffer-bit)
(gl:color 1 1 1)
(glu:look-at 0 0 5
             0 0 0
             0 1 0)
(gl:scale 1 2 1)
(glut:wire-cube 1)
```

The mapping to Lisp is pretty complete and really intuitive with nice wrappers

No Widgets, No Fonts

- Out of the box, there are no widgets at all
  - No buttons
  - No text fields
  - No menus
- Even worse, there are no fonts
  - You can render fonts to a texture
  - Or do fancy tricks with the stencil buffer

Woolly’s On The Way

```
;; more info on woolly here:
;;   http://nklein.com/software/woolly/

(let ((app (object :parents =app=))
      (win (object :parents =window=
                   :title “Woolly”))
      (quit (object :parents =button=
                    :label “Quit”)))
  (display-window win)
  (add win quit)
  (defreply clicked :after ((bb quit) mb xx yy)
    (exit-main-loop app))
  (main-loop app)
```