Layout Manager

<<interface>>
abstract_rendering_surface

show(abstract_rendering_source)
renderer_done()

need_redraw(rect)
need_redraw()

get_rect()
get_global_topleft()

<<interface>>
abstract_rendering_source

redraw(screen_rect, abstract_window)

active_renderer

<<interface>>
abstract_window

need_redraw(screen_rect r)

<<interface>>
window_factory

new_window(..., abstract_rendering_source rgn)

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cocoa_window
m_view

cocoa_window_factory
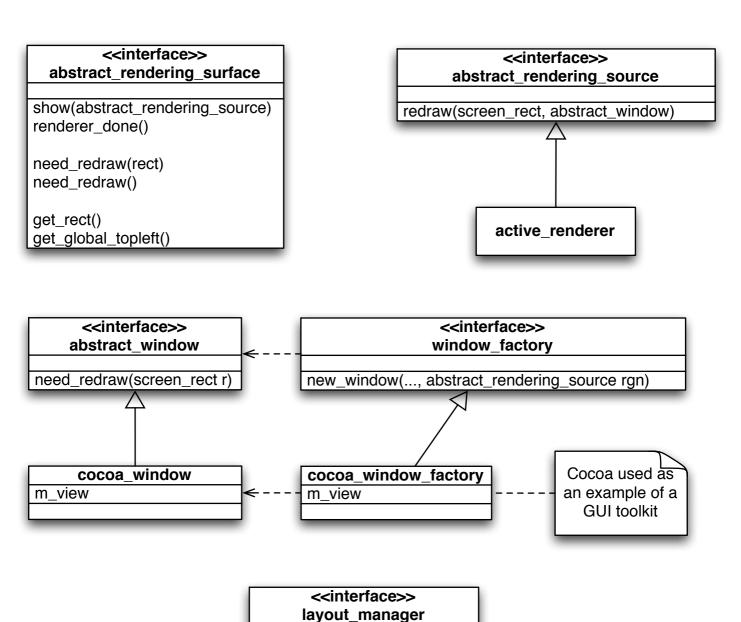m_view

Cocoa used as an example of a GUI toolkit

<<interface>>
layout_manager

get_rendering_surface(node)