



# softinex, inlib, ioda, g4view, wall, etc...



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http://softinex.lal.in2p3.fr

2007/2010 : Arrival of smartphones and tablets : iPhone, iPad, Android devices.  
2007/2010 : Arrival of the stores (AppleStore, AndroidMarket) that permit an easy world wide distribution of “apps”.  
2010 : Apple gave to LAL/SI four machines and eight screens for an “ARTS” (Apple Research and Technological Support) projet.

→ We reconsider the way we do graphics and GUI : **softinex**

**softinex** = inlib, exlib, ourex libraries  
+ applications as ioda, g4view, wall etc...

### inlib :

- central logic : have a scene graph manager built over **C++ and GL-ES** : inlib/sg.
- inlib/sg : a set of “nodes” ; shapes (inlib::sg::cube, inlib::sg::vertices), cameras (inlib::sg::ortho, perspective, frustum, lrbt), inlib::sg::matrix to position objects, containers (inlib::sg::separator, group). An assembly of containers and leaf nodes is a scene graph. inlib::sg::action : to “traverse” a scene graph for doing something specific. A central action is the “render\_GL” action that produces the GL-ES for doing the rendering. (inlib/sg is strongly inspired from the great OpenInventor).
- Various tools as histograms (inlib::histo::h1d), fitter, file reader/writer (.aida, .csv, .root), plotter, etc...
- Have a maximum of pure header code to ease the build of apps on most platforms.

### exlib :

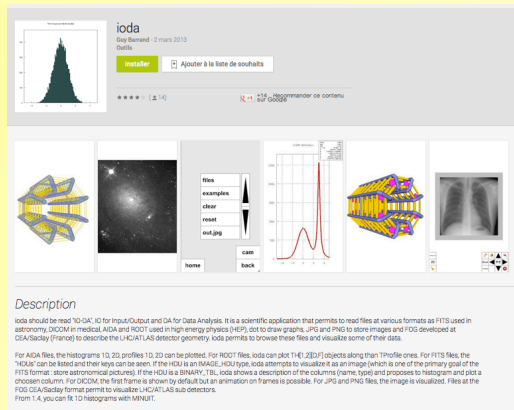
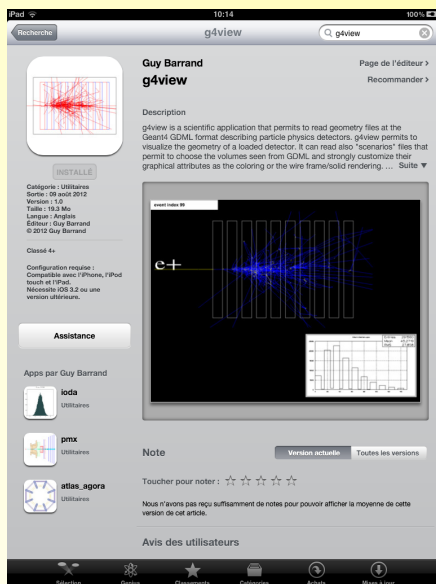
- set of pure header classes doing the bridge with external packages such as GL-ES, Android, iOS, Cocoa, X11, Win32, expat, jpeg, png, freetype, cfitsio, dcmtk, graphvis, Geant4, etc...

### ourex :

- in order to ensure a strong portability, the same comportement on all platforms, and to ease the “build and install” of apps ; we bring/master the external packages we need, such as expat, jpeg, png, etc... in the ourex library.

### GUI :

- We attempt to do it with inlib code (inlib::sg::button, etc...).
- It simplifies a lot of things and permit to build very compact applications.
- Since over GL-ES, we can embed buttons in (3D) scenes visualizing data.
- Today the look and feel is not so great but we have not said our last word...



### Multi screens and computers visualization system :



Ask for a tablet demo!

