SkySurveys

André Schaaff, Pierre Fernique, Vincent Kaestlé CDS

IVOA meeting, Pune, 16-21 October 2011







Purpose

- Remember Naples presentation: Smartphones, multitouch Internet tablets are everywhere, ... and people are used to manipulate with the fingers
- New feedback about a recent work
 - Surveys in your pocket

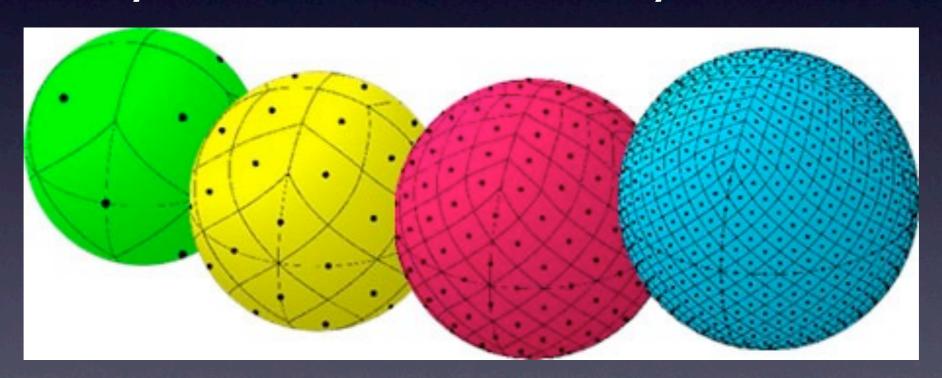
What is SkySurveys?

- An Aladin Allsky mode «Lite» for Android
 - Reuse of a set of Java classes from Aladin
 - GPS, accelerometer, compass to refresh the display in the pointing mode

• ...

How we do it?

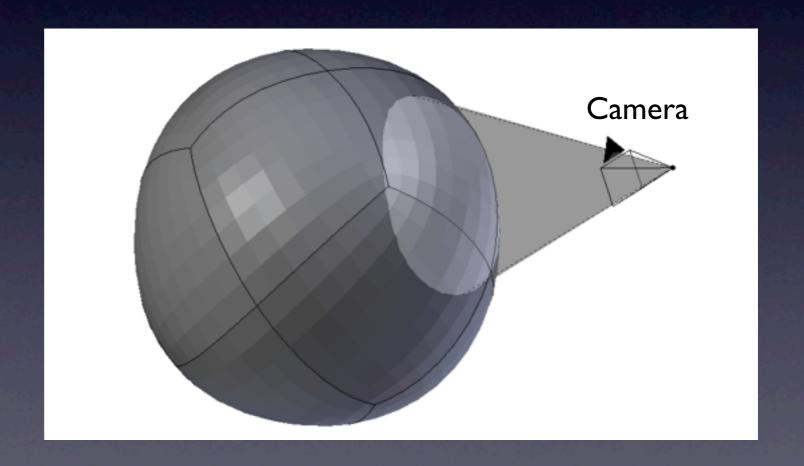
 It is based on HEALPix, so we use the same surveys than the Aladin Allsky mode



See http://healpix.jpl.nasa.gov/

How we do it? (2)

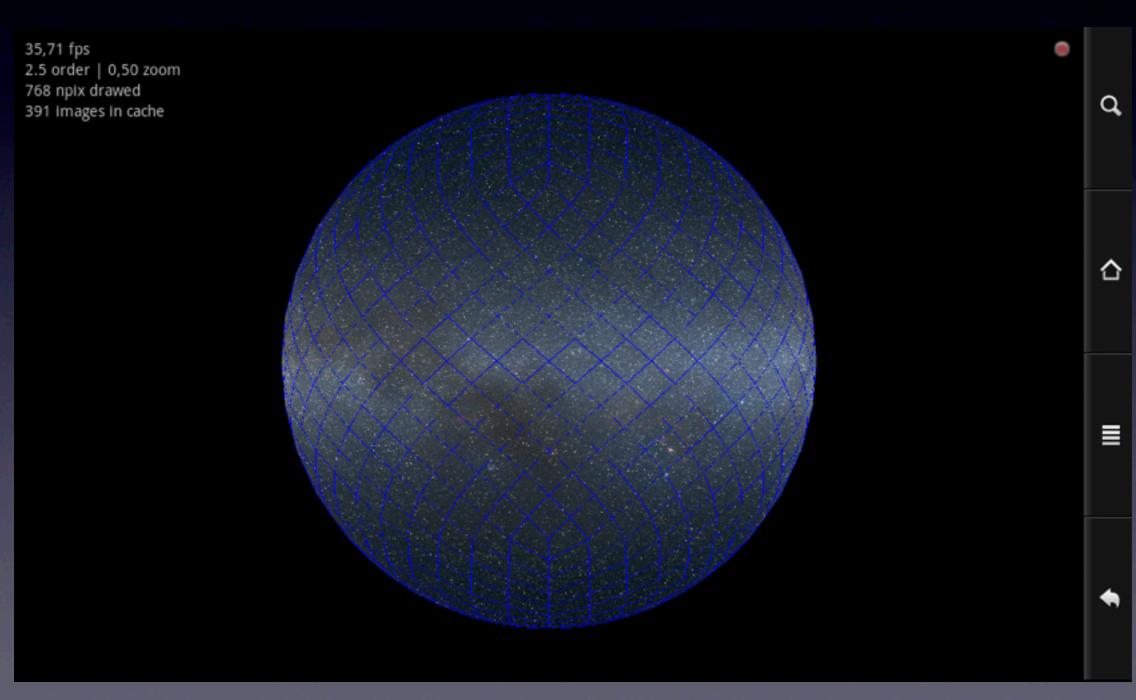
Restriction of the loaded images



How we do it? (3)

- We use OpenGL (Open Graphics Library)
 which is available on all the recent
 Smartphones and Internet Tablets
 - better usage of the graphics chipset
- Mandatory to have good performances
- Aladin can do the same without it because desktops and laptops are more powerful

Example with Mellinger Color



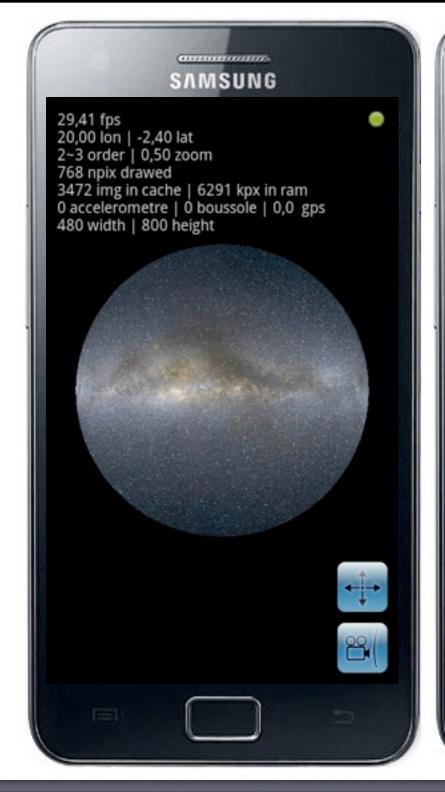
Remarks

- The use of OpenGL is not trivial
- Android tools must be tested on a large number of different devices (the fact that your Smartphone runs with Android 2.2 or 2.3 or etc. is not enough, and it is the same for the Internet tablets)

Which surveys?

- A first set to test the tool: Mellinger Color, Iris Color, DSS Color, Spitzer Color, Finkbeiner B/W
- It is easy to add/remove a survey (just an XML configuration file)
- Let's go for a few examples...

Mellinger Color







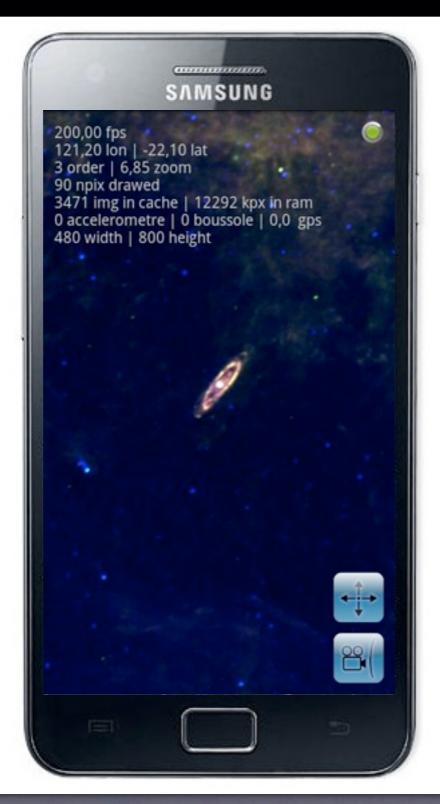
Iris Color







Iris Color (2)



DSS Color



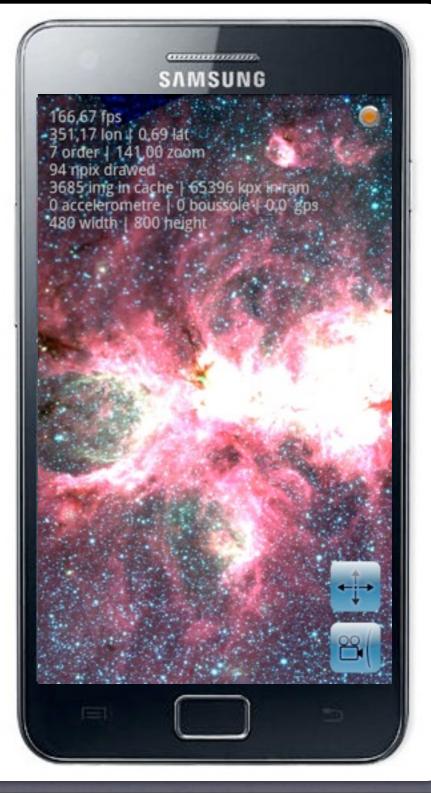




Spitzer







Finkbeiner B/W





That's all





Video clips

Demo

Roadmap

- Showing and selection of objects
- Use the feedback from the Android developments (OpenGL skills)
- HTML5 and WebGL

