Camera Tracking

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Demo Reel 2003
by Meats Meier

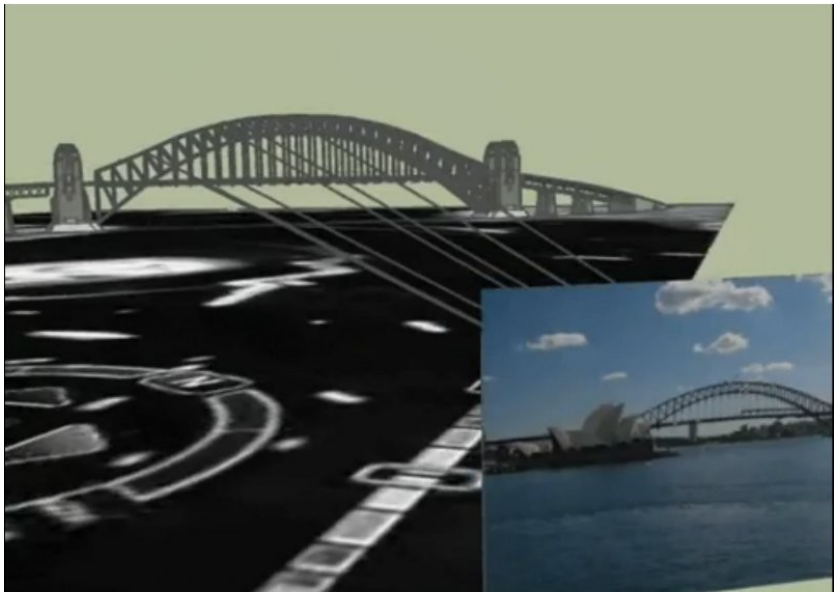
$$K = \begin{bmatrix} f_x & 0 & c_x \\ 0 & f_y & c_y \\ 0 & 0 & 0 \end{bmatrix}$$

$$P = K[R|t]$$

$$x = P\,X$$

$$F = K_2^{-T}\,[T]_x\,K_1^{-1}$$

$$X0\ F\ X1 = 0$$



Fundamental Matrix song
by Daniel Wedge

Usate i seguenti tasti:

p : record
s : stop
c : convert

NB: acquisite il video per il corto.


VOODOO camera tracker

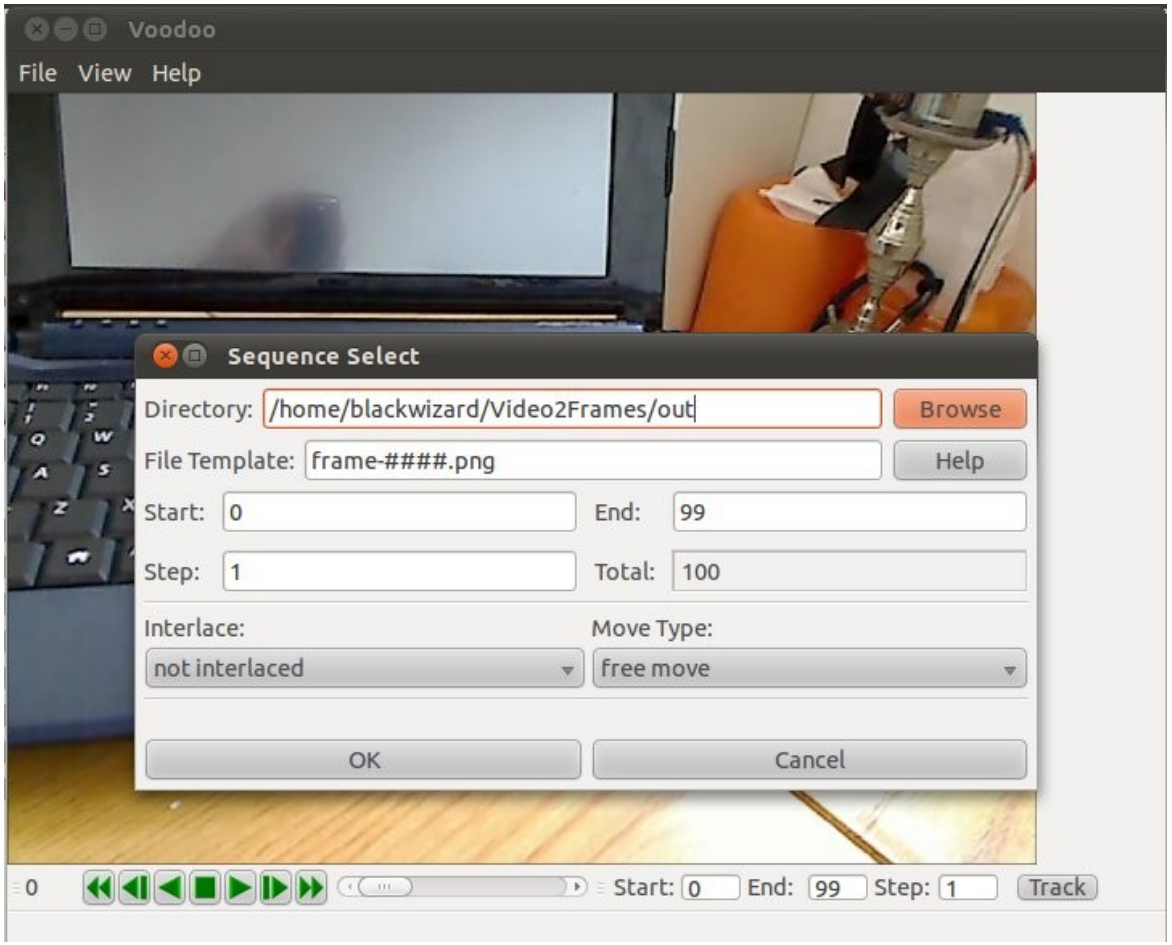
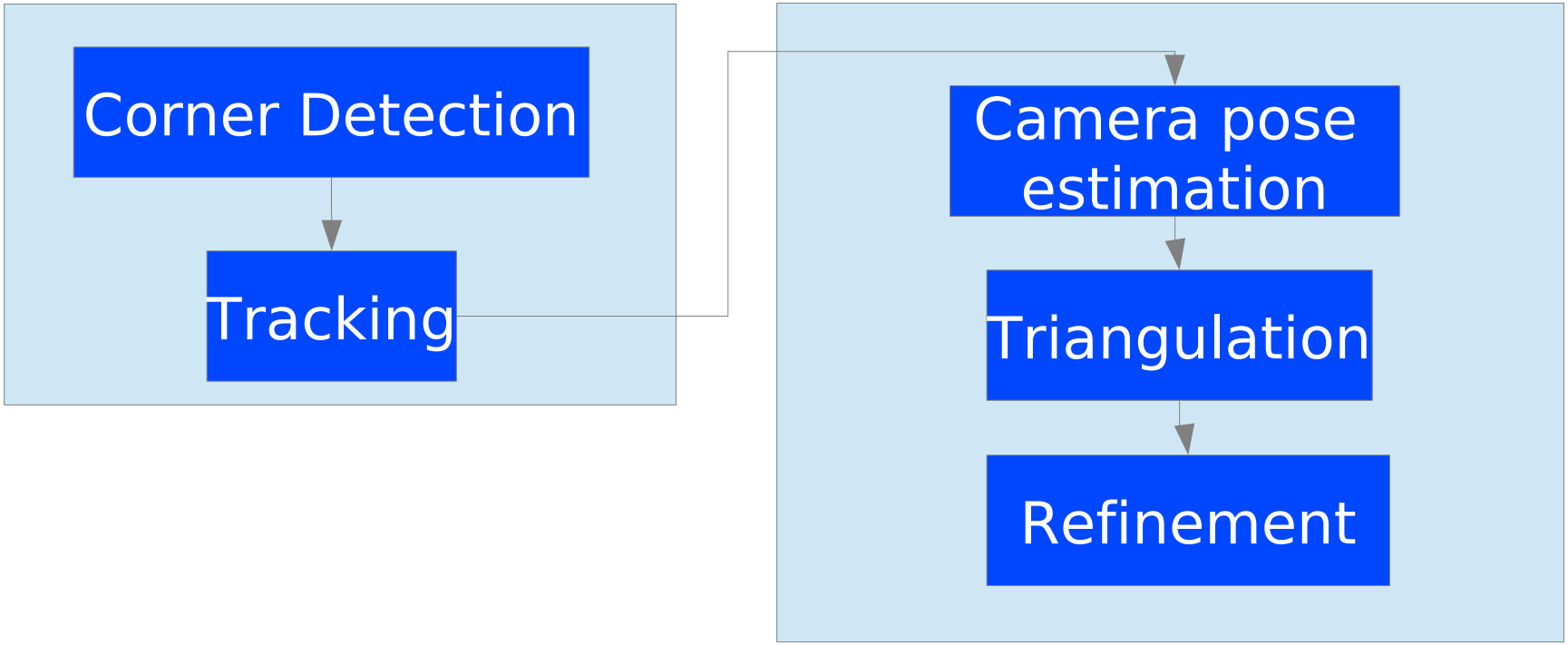

Voodoo
File View Help
Sequence Select
Directory: /home/blackwizard/Video2Frames/out
Browse
File Template: frame-####.png
Help
Start: 0
End: 99
Step: 1
Total: 100
Interlace:
not interlaced
Move Type:
free move
OK
Cancel
0
Start: 0 End: 99 Step: 1
Track

Image Analisys

Geometric estimation

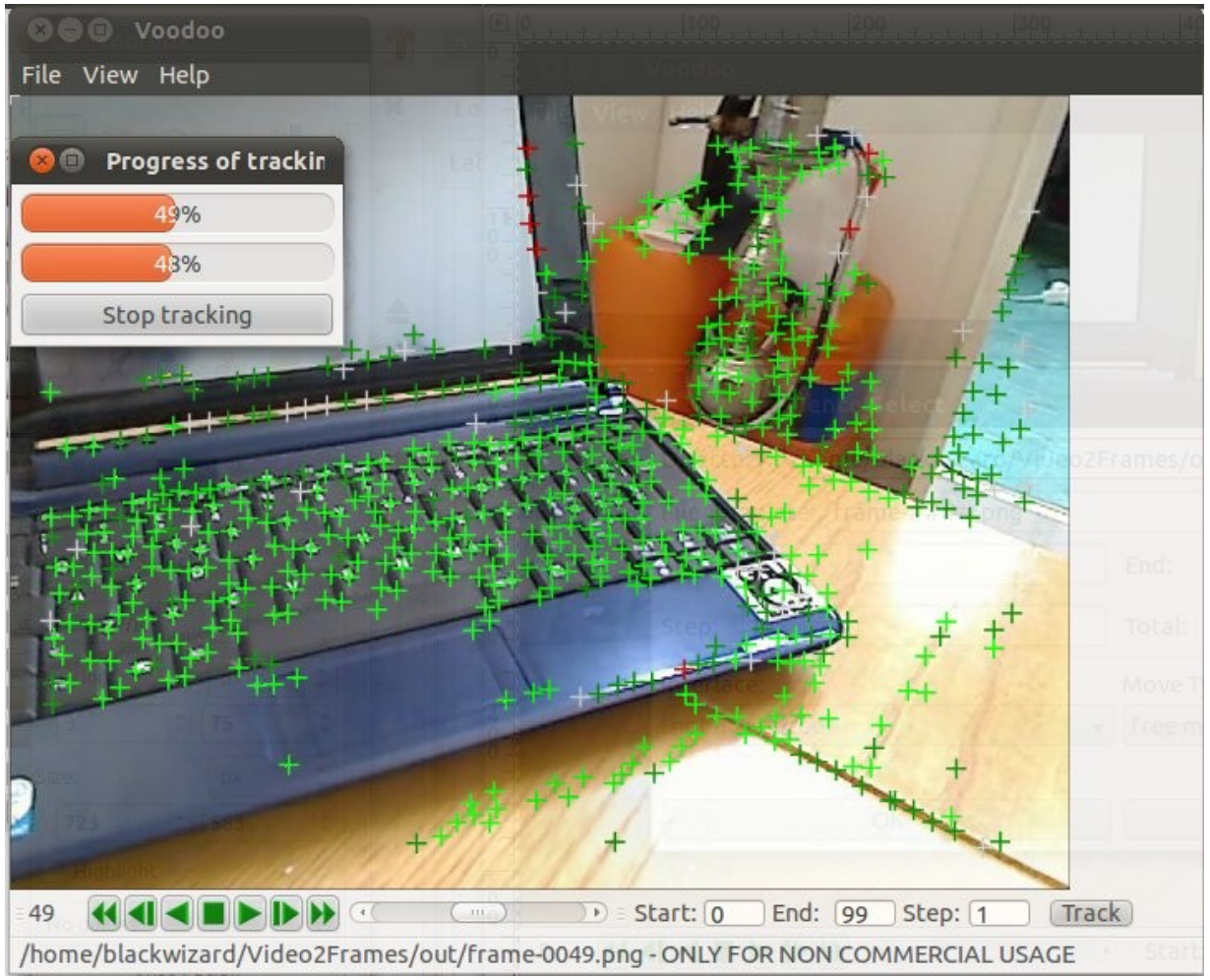


Detezione features:
Harris
Shi-Tomasi
Fast

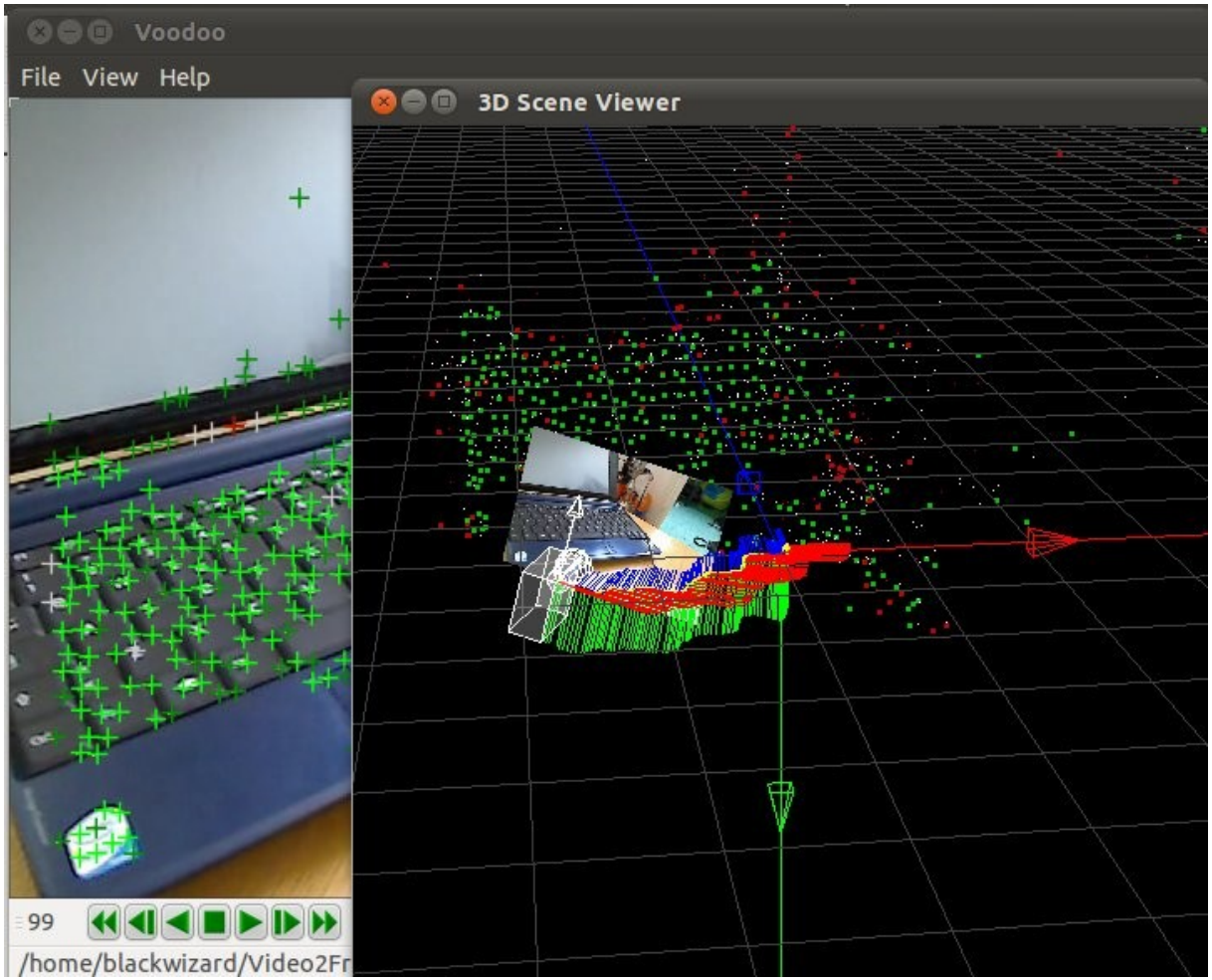
Tracking:

PKLT

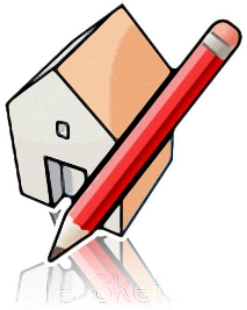
Outliers:
Sono i punti in rosso
per cui l'associazione è sbagliata



Processando i punti stimati nel passo procedente è possibile ricostruire la traiettoria della camera e un mappa sparsa di punti 3d

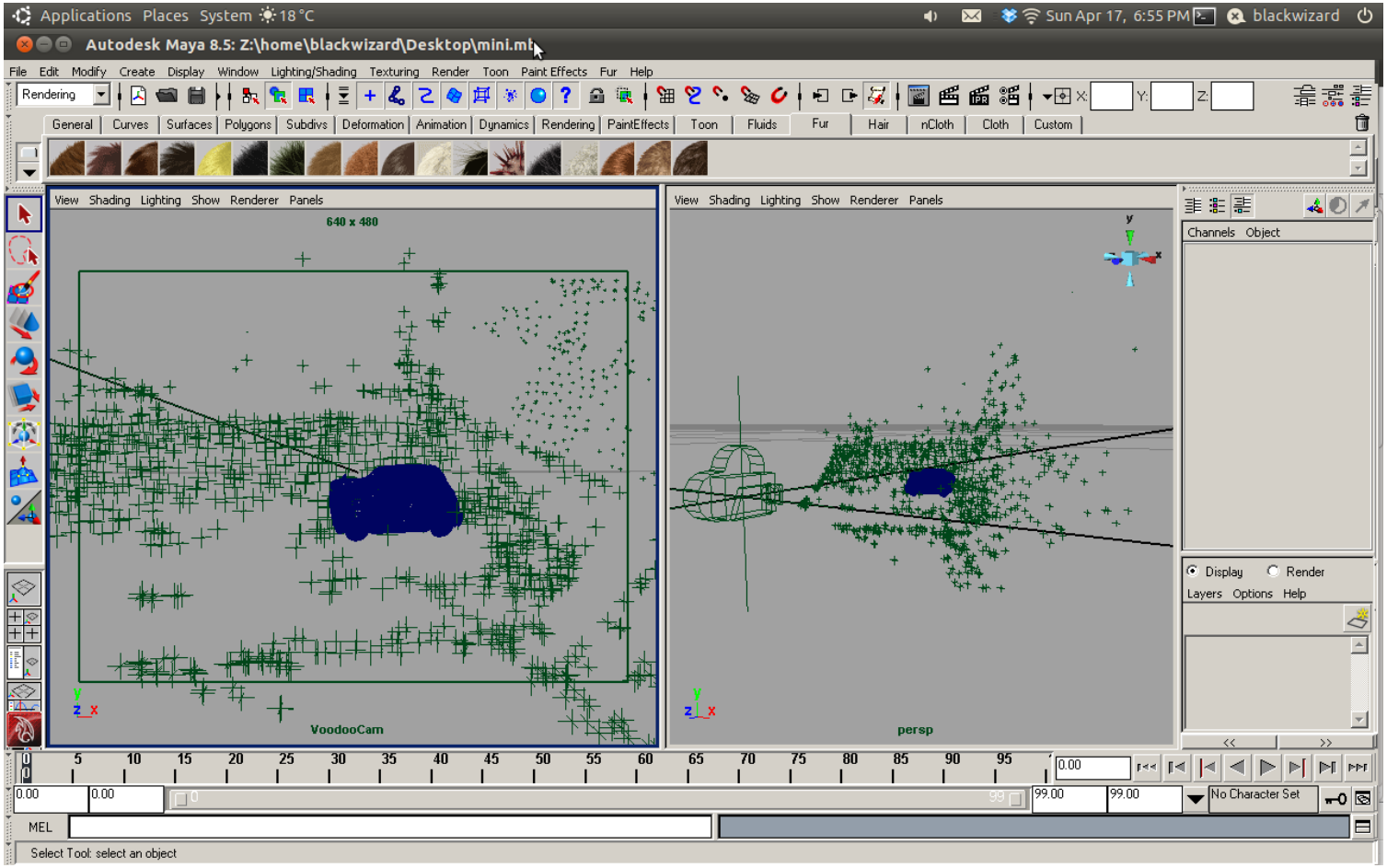


Modelli della comunità Sketchup: Sketchup



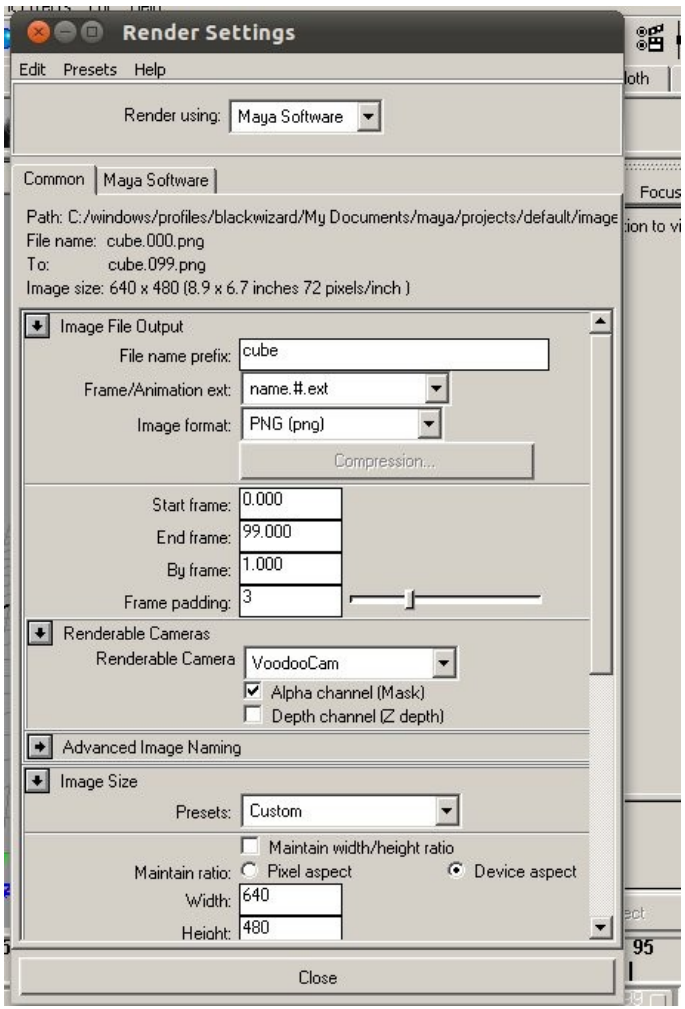
Convertire i modelli in altri formati: Babel3d

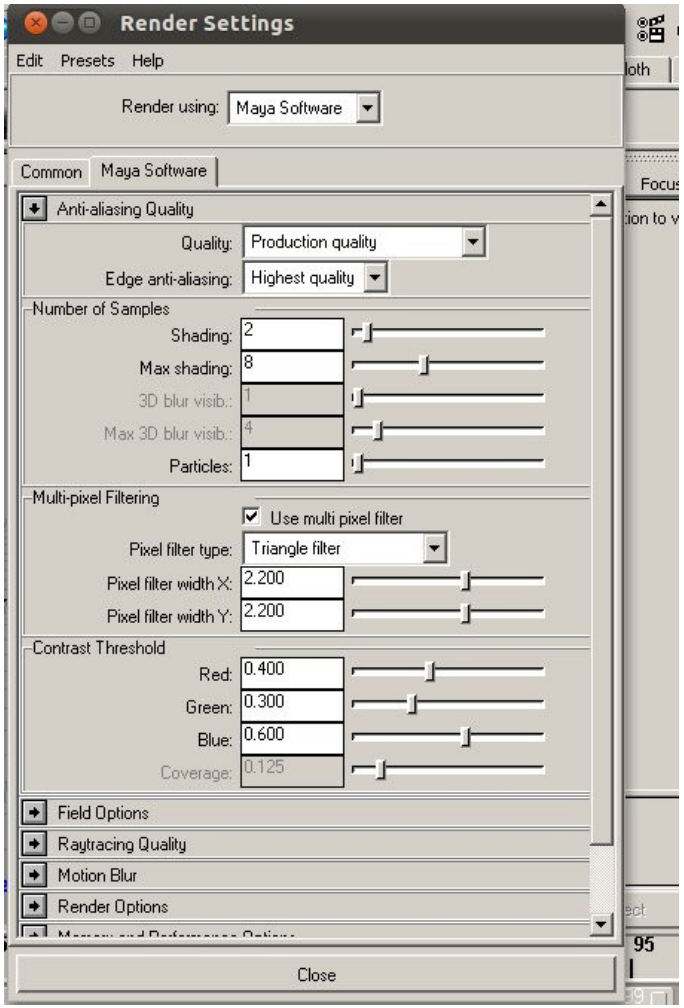
Maya: import model and camera animation



Per lanciare il rendering vero e proprio:

Render → Batch Render





Rendering da Maya

Immagine iniziale

Compositing finale

PTAMM
by Oxford University

Images retrieval

Augmented navigation

Realizzare un cortometraggio usando la tecnica vista a lezione.

Realizzare i seguenti occhiali 3d,seguendo il tutorial scaricabile nella sezione lezioni.

Durata massima 15/20 sec.