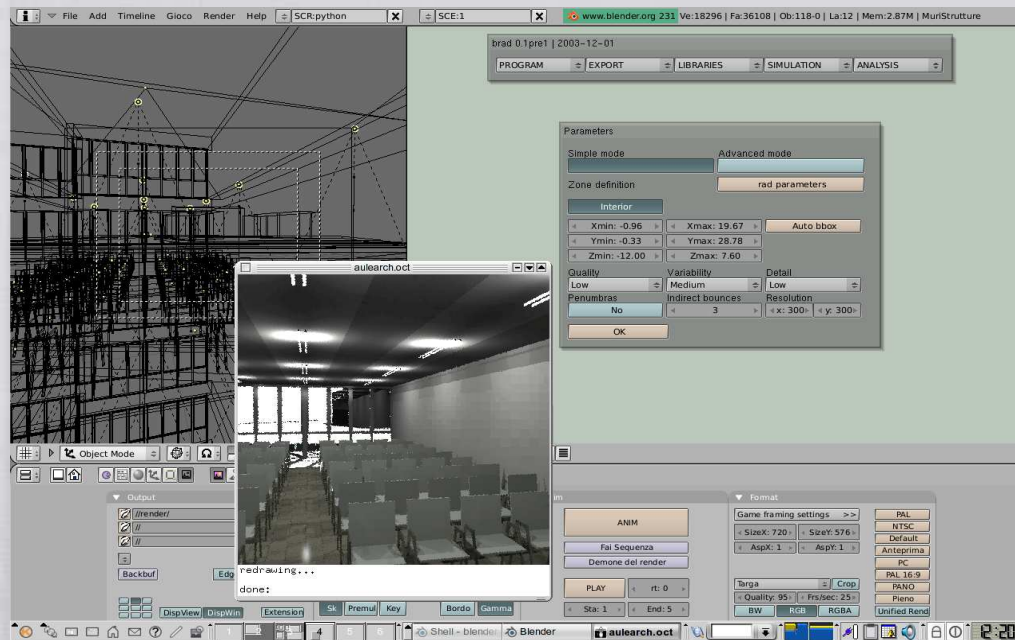


brad

[blender based graphical user interface for radiance]



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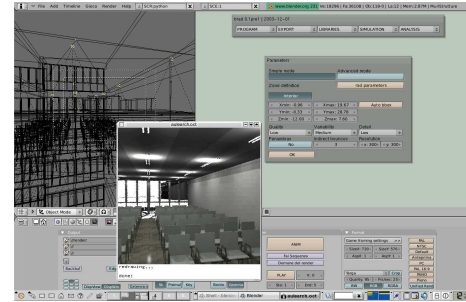


dream
dipartimento di ricerche
energetiche ed ambientali



brad

yet (!) another GUI for Radiance
(Blender module)



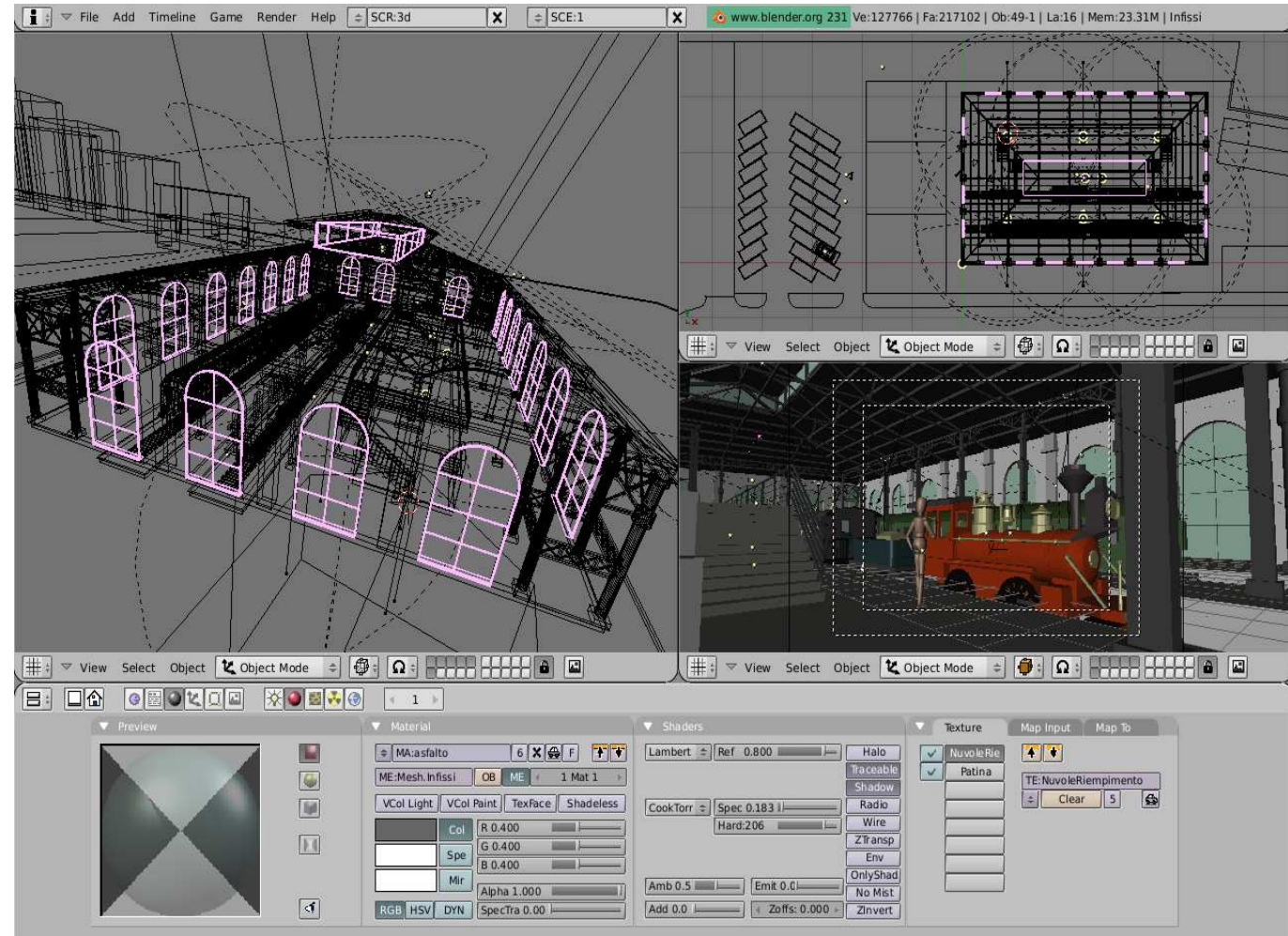
1. Blender
2. “brad” description
3. “brad” demo

- trad
- Desktop Radiance
- Rayfront + 3DSolar
- rshow
- Conrad
- Octree
- Lichtplaner Light Studio Renderer
- Maya 2 Radiance tools
- static exporters from CA(A)D programs (dxf2rad, torad, radout, ...)
- ...

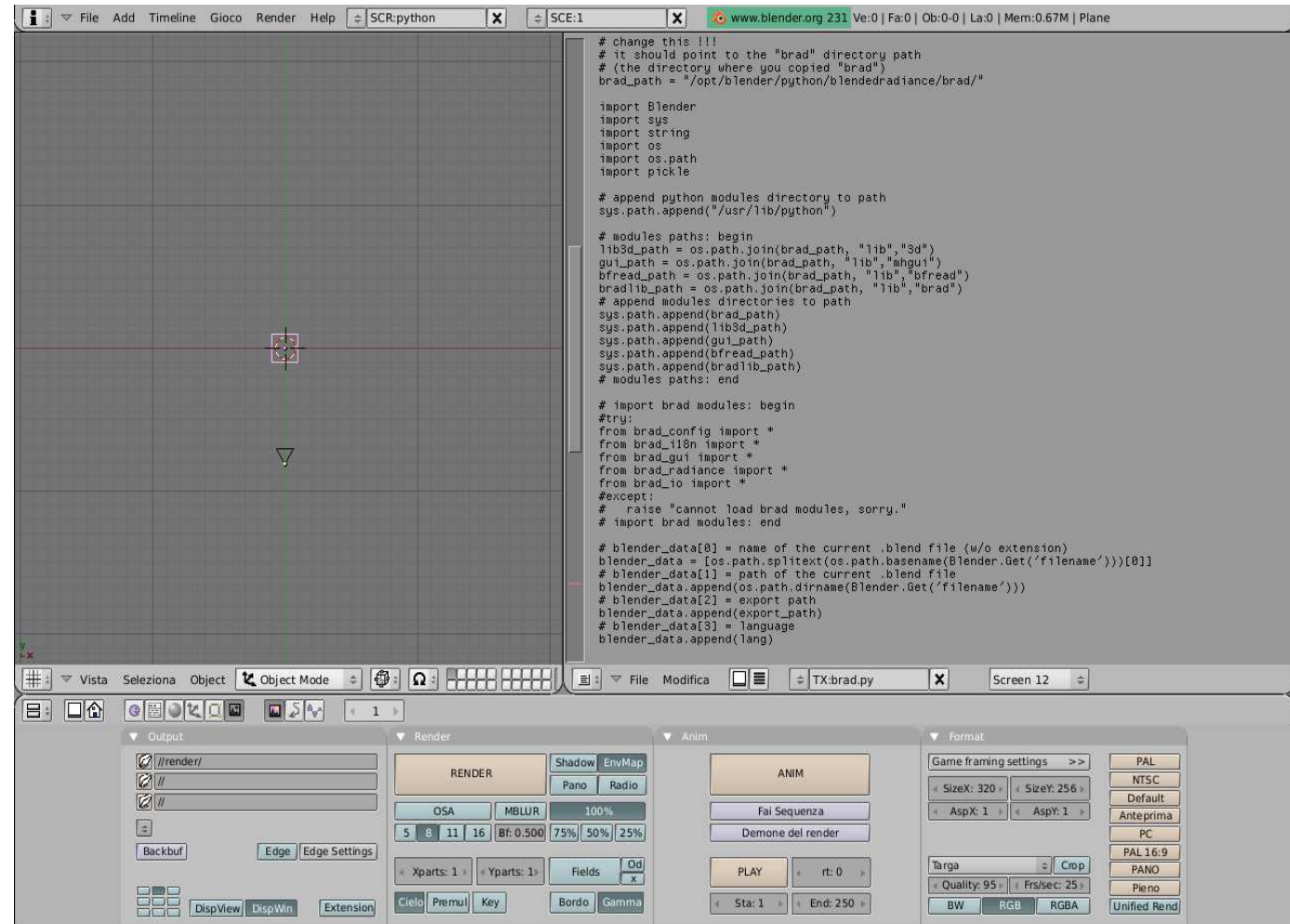
What about dynamic simulations?

- varying sky conditions according to weather datasets
- moving camera
- moving/changing geometry and materials
- parametric objects (e.g. responsive to illuminance, ...)

- 3D modeling, animation and rendering tool
- open source
- cross platform (windows, linux, mac, ...)
- python API with access to 3D objects
- real-time 3D engine (3D navigation + videogames)



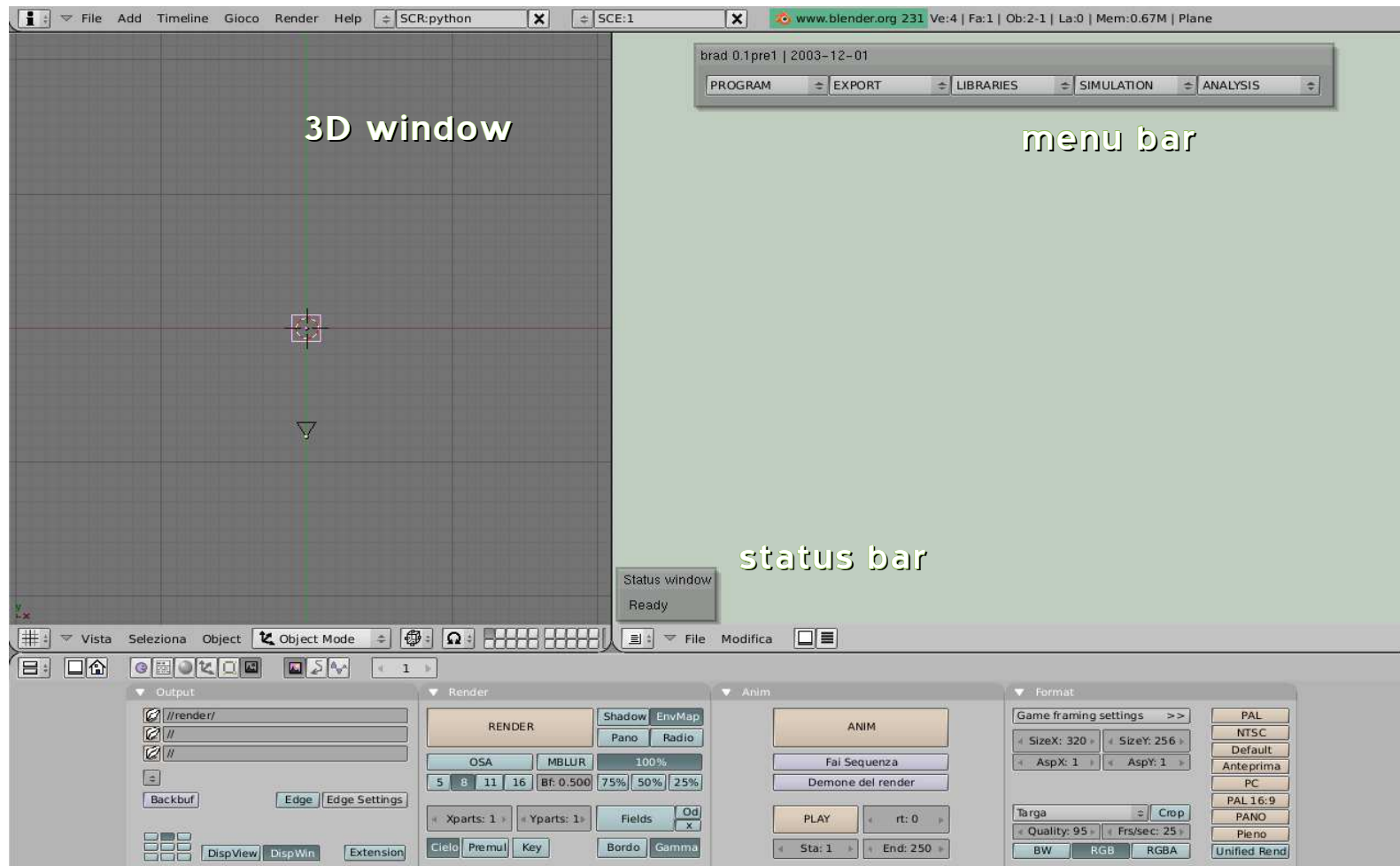
- non-standard GUI
- not a CAD program (yet!)

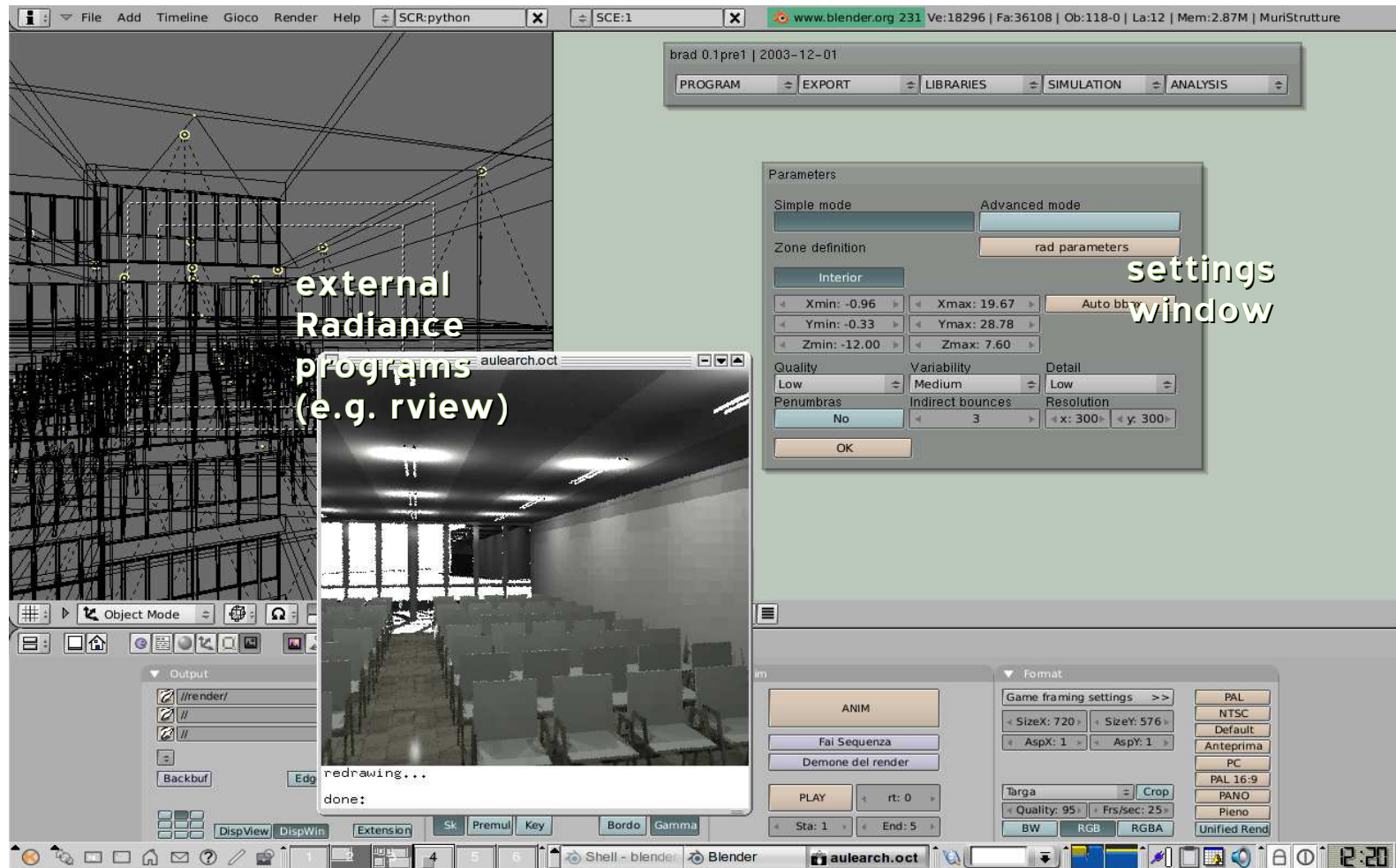


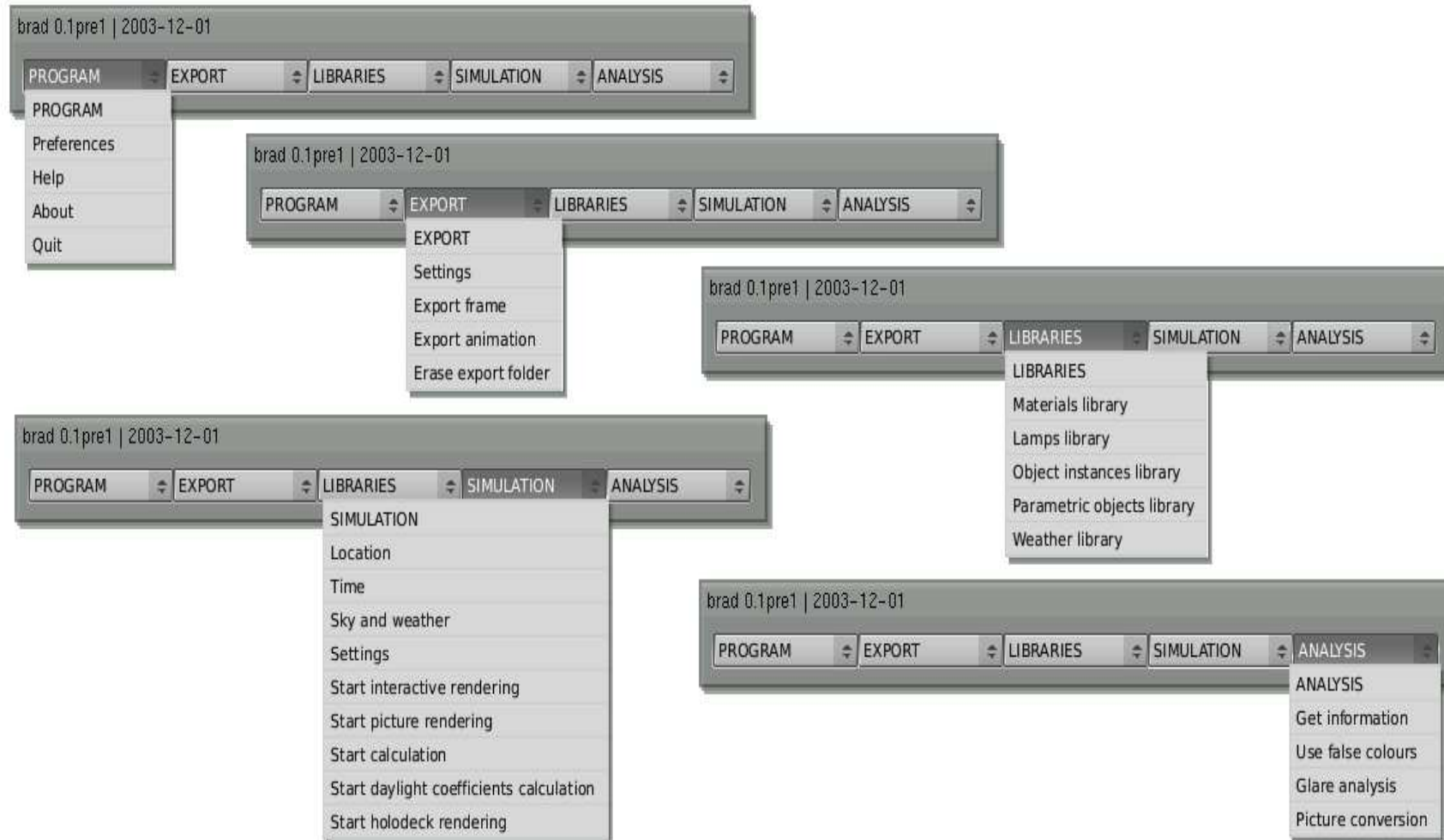
6

brad

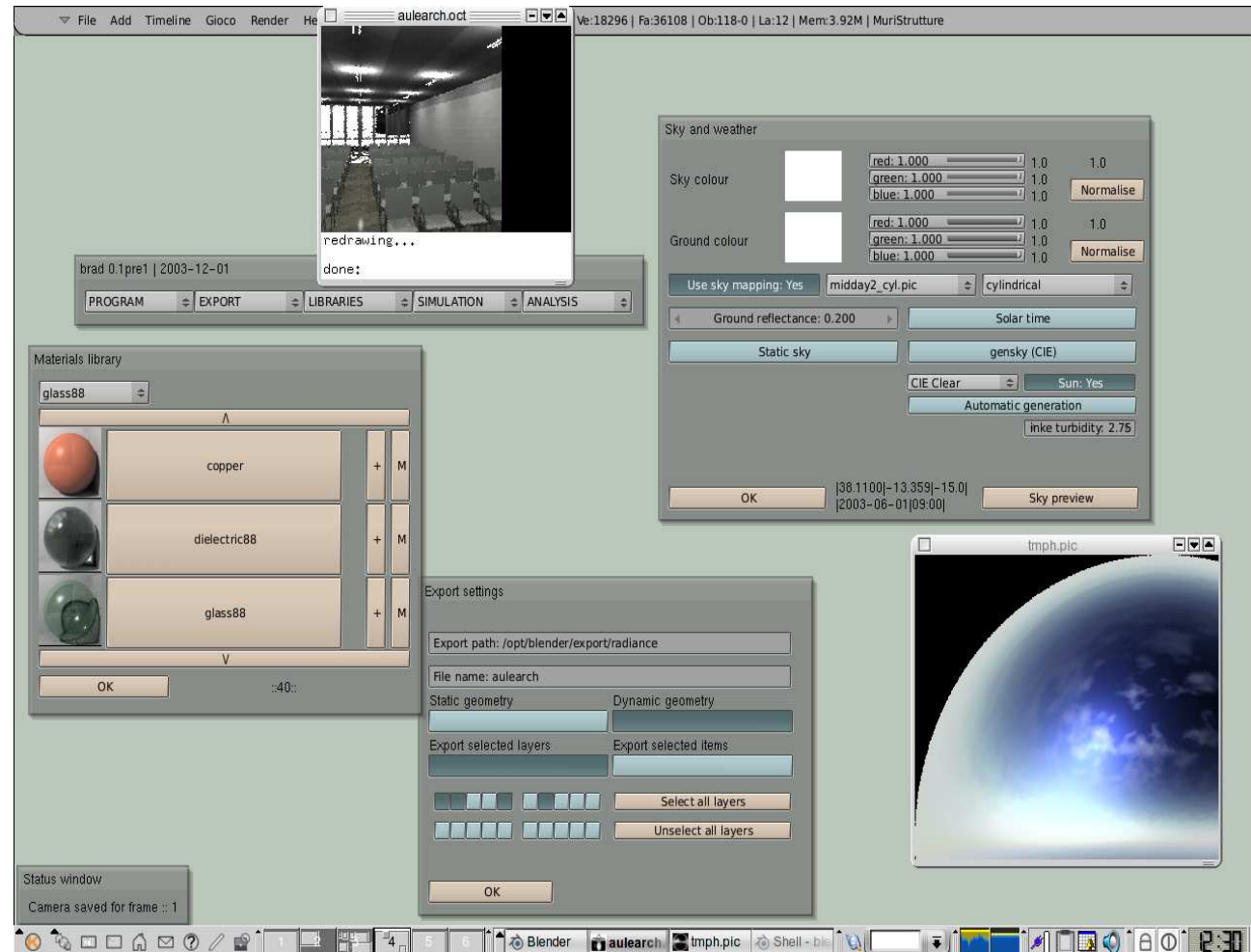
blended radiance [brad]







- simple windowing environment inside Blender (based on MHGui 1.12 by Mario Latronico and Manuel Bastioni)
- settings windows can be easily accessed
- post-processing (VTK, DXF)



CURRENT FEATURES

export/animation

- layers support
- export camera views (static animations)
- export dynamic animations (keyframing):
 - changing sky conditions
 - scene geometry (only meshes)
 - camera positions
- support for the Radiance mesh primitive
- support for Blender textures and uv mapping
- linked objects are exported as instances or mesh primitives
- grids are exported as measurements points that can be piped to rtrace
- VTK export and DXF luminaires export for post-processing

libraries

- materials library
- luminaires library

simulation

- "basic" simulation (rad)
 - getbbox from selected object
 - support for all rad variables
- interactive and batch simulation
- locations, time, sky and weather support
- dynamic sky generation
- sky mapping support

TODO LIST

program

- export variables / save program state

export/animation

- enhanced support for Radiance camera settings
- support for Radiance procedural textures

libraries

- luminaires library
 - read and plot photometric data
- parametric objects library
- glazing library (link to Optics5 db?)
- weather data browser

simulation

- advanced simulation (makefiles output)
 - support for pmap and radzilla
 - support for mkillum
- support for lcs and radmap
- support for holodeck

analysis

- glare analysis
- falsecolor support and picture conversion
- pdf/HTML report generation

documentation and tutorials

brad



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download **brad (source code, documentation, tutorials):**

`http://www.dream.unipa.it/dream/pub/dot/anselmo/radiance/`

`http://www.bozzograo.net/radiance/`