

Updated GameTools: Libraries for easier advanced graphics in serious gaming

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Index

- 1 Introduction: Overview of Updated GameTools
 - Geometry routines
 - Advanced global illumination effects
- 2 Structure of the routines
- 3 Use Cases
 - Jaume I
 - Legends of Girona
 - Nine Men Morris
- 4 Conclusions

Index

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 - Advanced global illumination effects
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 - Nine Men Morris
- 4 Conclusions

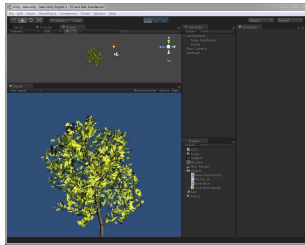
Purpose

- Simple, easy to use routines, ideally drag & drop
- Efficient, making use of GPU transparently
- Knowledge of computer graphics not required
- Usable by non experts

Geometry and Illumination routines

- Geometry simplification using continuous level of detail
 - Stripification and simplification of triangle stripes
 - Specialized algorithms for simplification of trees
- Advanced global illumination effects
 - Realistic reflection, refraction, caustics and other effects
 - GPU implementation

Geometry simplification and management

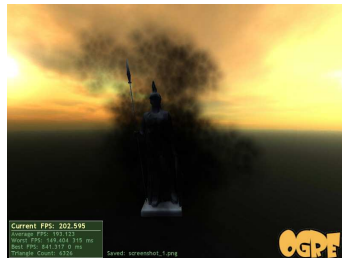


Advanced global illumination effects using GPUs

Interactive and realistic illumination effects:

- Caustics
- Particle systems
- Raytracing
- Hierarchical systems
- Tone mapping
- Precomputed radiance maps
- Multiple reflections and refractions
- Importance sampling aware algorithms

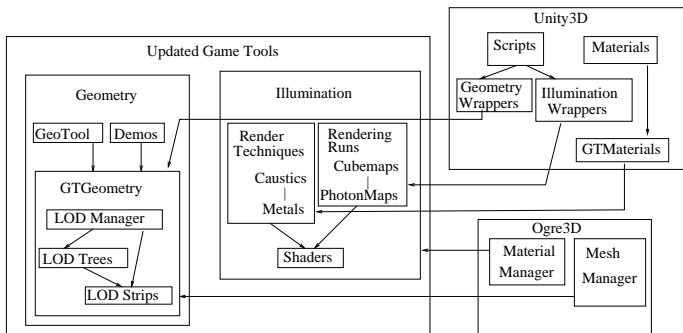
Caustics, particle systems, raytracing, hierarchical systems



Index

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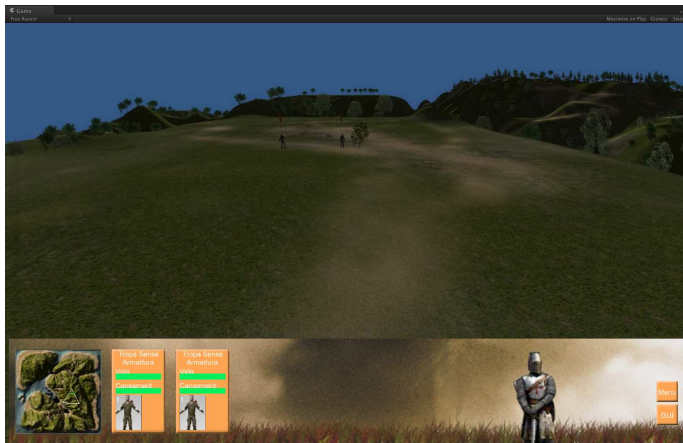
Structure of the routines



Index

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Jaume I



Jaume I



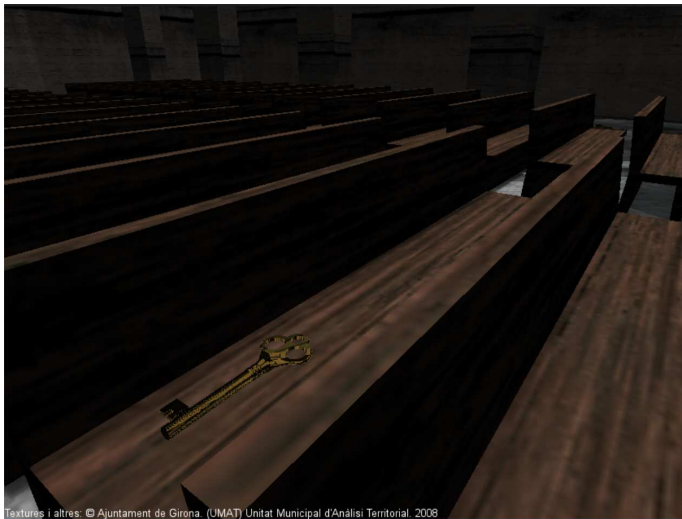
Jaume I



Legends of Girona



Legends of Girona



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Nine Men Morris



Index

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Conclusions

- Collection of efficient Geometry and Illumination routines packaged for easy-of-use
- Drag & Drop, no knowledge of graphics required.
- Unity3D and Ogre3D engines supported
- Three games have been used to evaluate the routines.

Questions and Comments

Thank you for your attention.

Questions and comments are welcome.