Université de Montpellier Master IMAGINA - 1ère année

TER - FEUILLE DE ROUTE Stardust Engine



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1 Estimation du travail

Pour réaliser le Diagramme de Gantt prévisionnel, nous avons utilisé un document partagé.

2 Répartition des lectures

Svetlana

- Simulation and Rendering for Millions of Grass Blades[3]
- Real-Time Grass (and Other Procedural Objects) on Terrain [6]
- Volumetric Spot Noise for Procedural 3D Shell Texture Synthesis [7]

Félix

- A Review of Digital Terrain Modeling[4]
- Arches: a Framework for Modeling Complex Terrains [5]

Clément

- A good sound in the right place: Exploring the effects of auditory-visual combinations on aesthetic preference [9].
- Generation of tree movement sound effects [2].
- Current problems and future possibilities of procedural audio in computer games [1].

Luc

- VoxColliDe: Voxel Collision Detection for Virtual Environments[10]
- Chrono: An Open Source Multi-physics Dynamics Engine[8]

L'image de la page de garde est une capture d'un jeu vidéo : No man's sky.

Références

- [1] Niels Böttcher. Current problems and future possibilities of procedural audio in computer games. *Journal of Gaming and Virtual Worlds*, 5:215–234, 2013.
- [2] Katsutsugu Matsuyama; Tadahiro Fujimoto; Kazunobu Muraoka; Norishige Chiba. Generation of tree movement sound effects. *Computer Animation and Virtual Worlds*, 16:531–545, 2005.
- [3] Zengzhi Fan, Hongwei Li, Karl Hillesland, and Bin Sheng. Simulation and rendering for millions of grass blades. In *Proceedings of the 19th Symposium on Interactive 3D Graphics and Games i3D '15*. ACM Press, 2015.
- [4] Eric; Peytavie Adrien; Cordonnier Guillaume; Cani Marie-Paule; Benes Bedrich; Gain James Galin, Eric; Guérin. A review of digital terrain modeling. *Computer Graphics Forum*, 38:553–577, 2019.
- [5] A. Peytavie; E. Galin; J. Grosjean; S. Merillou. Arches: a framework for modeling complex terrains. *Computer Graphics Forum*, 28:457–467, 2009.
- [6] Dimitris Papavasiliou. Real-time grass (and other procedural objects) on terrain. *Journal of Computer Graphics Techniques (JCGT)*, 4(1):26–49, February 2015.
- [7] Nicolas Pavie, Guillaume Gilet, Jean-Michel Dischler, Eric Galin, and Djamchid Ghazan-farpour. Volumetric Spot Noise for Procedural 3D Shell Texture Synthesis. In Cagatay Turkay and Tao Ruan Wan, editors, Computer Graphics and Visual Computing (CGVC). The Eurographics Association, 2016.
- [8] Alessandro Tasora, Radu Serban, Hammad Mazhar, Arman Pazouki, Daniel Melanz, Jonathan Fleischmann, Michael Taylor, Hiroyuki Sugiyama, and Dan Negrut. Chrono: An open source multi-physics dynamics engine. In *Lecture Notes in Computer Science*, pages 19–49. Springer International Publishing, 2016.
- [9] Jingwei Wang, Ronghua; Zhao. A good sound in the right place: exploring the effects of auditory-visual combinations on aesthetic preference. *Urban Forestry and Urban Greening*, page S1618866718307891, 2019.
- [10] S. M. Lock; D. P. M. Wills. Voxcollide: Voxel collision detection for virtual environments. Virtual Reality, 5:8–22, 2000.