

MESH COLORING



This project aims to build an interactive system to colour 3D meshes. Given a 3D mesh, the user/artist should be able to effortlessly color it using the tools developed during this project.

The topic requires a good knowledge in programming, mesh manipulation libraries (for eg: libGLViewer) and geometry packages (for eg: CGAL). Moreover, the project requires a good understanding of Geometry processing concepts.

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A few references in this direction are:

*References

- [1] Bart Adams et al. "Interactive 3D Painting on Point-Sampled Objects". In: *SPBG'04 Symposium on Point - Based Graphics 2004*. Ed. by Markus Gross et al. The Eurographics Association, 2004.
- [2] Maneesh Agrawala, Andrew C. Beers, and Marc Levoy. "3D Painting on Scanned Surfaces". In: *Proceedings of the 1995 Symposium on Interactive 3D Graphics*. I3D '95. ACM, 1995.
- [3] Chi-Wing Fu, Jiazhi Xia, and Ying He. "LayerPaint: A Multi-Layer Interactive 3D Painting Interface". In: *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems 2010*.
- [4] Takeo Igarashi and Dennis Cosgrove. "Adaptive Unwrapping for Interactive Texture Painting". In: *Proceedings of the 2001 Symposium on Interactive 3D Graphics*. I3D '01. New York, NY, USA: Association for Computing Machinery, 2001, pp. 209–216. ISBN: 1581132921.
- [5] Qian Sun et al. "Texture Brush: An Interactive Surface Texturing Interface". In: *I3D '13*. Orlando, Florida: Association for Computing Machinery, 2013, pp. 153–160. ISBN: 9781450319560.