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Gaming Tools for Efficient Low Cost Urban Planning Using Nature Based Solutions

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Abstract : In this paper, we investigate the appropriateness and usability of three different free and open-source rendering tools for urban planning visualizations. The process involves the selection of a map area, the 3D rendering transformation, the addition of nature-based solution placement, and the evaluation and assessment of the suggested applied interventions. The manuscript uses a case study involved at Dilaveri Coast, Piraeus region, Greece. Research outcomes indicate that a Blender-OSM implementation is an appropriate tool capable of supporting high-fidelity urban planning, with quick and accurate visibility of related results for end users and involved in NBS transformations.

Keywords : urban planning, nature based solution, 3D gaming tools, game engine, free and open source
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