

## Review of Transportation Modeling Software

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**Abstract :** Planning for urban transportation is essential for developing effective and sustainable transportation networks that meet the needs of various communities. Advanced modeling software is required for effective transportation planning, management, and optimization. This paper compares PTV VISUM, Aimsun, TransCAD, and Emme, four industry-leading software tools for transportation planning and modeling. Each software has strengths and limitations, and the project's needs, financial constraints, and level of technical expertise influence the choice of software. Transportation experts can design and improve urban transportation systems that are effective, sustainable, and meet the changing needs of their communities by utilizing these software tools.

**Keywords :** PTV VISUM, Aimsun, TransCAD, transportation modeling software

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