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# Design of Data Model for Urban Transport GIS

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## ABSTRACT

Constructing the data model for public transportation by integrating the spatial and the non-spatial information, is the basis of reasonable plan and effective management of urban public transport. This paper presents a transit data model based on geographic information systems (GIS) technology, which utilizes arc-node networks, and manages the foundational bus data with point, link, polygon and record features. In this model, a transport network is generated and maintained in a dynamic manner, and hence supports planning, construction, management, operation and optimization functions for transit facilities and routes, as well as day-to-day transactions. Public transportation GIS established on this model foundation will remarkably upgrade the construction level and the urban service ability.

## KEYWORDS

Geographic Information System (GIS), Transit GIS, Transit Route Network, Data Mode

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