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Abstract

GIS MIDDLEWARE SUPPORTING HETEROGENEOUS GIS CLIENTS

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The ability of digital products increased rapidly, especially the mobile computing devices become more popular and they are suitable for accessing the GIS (Geographic Information System) application anywhere. In recent years, there are different types of GIS applications provided for particular computing devices respectively. Because of the differences such as processing speed, memory size, communication speed exist in various types of clients, making the GIS application server difficult to support all of them. This thesis is to design client-independence architecture, regardless of physical devices and communication link for generating a GIS middleware that is used to transform the GIS information between a map server and different types of GIS clients such as Desktop, Mobile phone, PDA, etc. With the GIS Middleware, the GIS application can extensively support multi-platform, and there is no need to implement the applications to be different versions. It is easy to extend and support any other new mobile computing device, decreasing the incompatibility between heterogeneous clients.