BII 12 Modeling of historical buildings using ruby and sketchup

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Three dimensional (3D) modeling in computer graphics is a process developing mathematical representation of an object via particular software. Currently this process widely used in video game industry, animated motion film industry, civil engineering an architecture industry. Sketchup is one of the three dimensional modeling softwa available in the market. It is easy to use compared to other 3D modeling software an available free of charge for non commercial use. Sketchup has different modules relate to architectural, civil and mechanical engineering. It has a Ruby Application Progra Interface (API) which supports ruby extensions. Ruby is a dynamic, reflective, gener purpose object oriented programming language similar to Java with several addition innovative features. The ruby extension is loaded at run time. If there is an error, the cod will be interrupted. Every 3D modeling tool which Sketchup holds can be easily invoke and operated through a Ruby extension. Developing large scale 3D model or duplicatin objects can be easily done using Ruby extensions rather than doing it all manually. Als 3D models can be parameterized using the language capabilities. In this research, historical building in the Galle Fort, Sri Lanka is studied and modeled using Skethcup an Ruby. The Galle fort is one of the remaining icons of colonial ruling of Sri Lanka. It wa constructed and operated by three different colonial rulers, Portuguese, Dutch and Britisl The architectural entities within the Fort are excellent examples to study their capabilitie Some of these buildings were deteriorated due to negligence and exposure to weathe Developing 3D models of these buildings and architectural monuments have man advantages. This model building procedure was illustrated using Galle heritag foundation building located within Galle Fort.

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