

Utilization of building information modeling in infrastructure's design and construction

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Abstract. Building Information Modeling (BIM) is a concept that has gained its place in the design, construction and maintenance of buildings in Czech Republic during recent years. This paper deals with description of usage, applications and potential benefits and disadvantages connected with implementation of BIM principles in the preparation and construction of infrastructure projects. Part of the paper describes the status of BIM implementation in Czech Republic, and there is a review of several virtual design and construction practices in Czech Republic. Examples of best practice are presented from current infrastructure projects. The paper further summarizes experiences with new technologies gained from the application of BIM related workflows. The focus is on the BIM model utilization for the machine control systems on site, quality assurance, quality management and construction management.