Paper 218 – Technology

PROPOSED METHOD FOR GENERATING AN EFFICIENT MULTI-IMAGE PHOTOGRAMMETRY OF A 3-DIMENSIONAL SPACE

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ABSTRACT

In computer graphic and entertainment industry, the advent of 3D-modeling has been a game changer. Since 1990s streams of 3D-contents has been flowing in diverse channels and has especially become game changer in the movie, animation and video game industry. Such circumstance then gave birth to various new technologies. One of these new advancement enables 3D content creation by using a photograph image or video footage. This technique accelerates the whole process. Multi-image photogrammetry is one of the emerging technology that has been used in generating 3D-contents in the industries mentioned earlier as well as in other fields such as in archeological survey, tourism, architecture and real estate where the objects is exhibited through various presentation such as Virtual Tour or Virtual Reality medium. Through the recent influx of off the shelf photogrammetric software, 3D-content creation now has wider proportion of contributors from non-professional. This present a risk in the object that being created as there is no standard method or best practice in creating 3D-object using these software. This research didn't cover a comprehensive technical details of the technology but rather focuses on the best practice in producing a 3D-content specifically a 3-dimensional space such as a room or an area including objects inside it. The content created is aimed to be realistic and presentable for various usage such as video games, movies, Virtual Reality application, or other multi-media presentation. **Keywords: Photogrammetry, Virtual Reality, Three-Dimensional Displays, Solid Modelling**