ABSTRACT

As the development of technologies, there are engineers who still have a limit about technologies that can help them on their project. One of the technologies in construction field is Building Information Modelling (BIM). BIM is an innovation from Information Communication Technology (ICT) on the construction world. Applications from BIM that will be used in this research are Cubicost Take-off Architecture & Structure (TAS) for concrete working volume calculation and Cubicost Take-off Reinforcement Bar (TRB) for reinforcement working volume calculation. In this research, the writer has a purpose to compare the calculation of roof plate working volume between Building Information Modeling method with conventional method. Based on the result, using Cubicost to calculate roof plate working volume has an accurate result. On concrete working volume calculation with Cubicost TAS, the calculation has a same number with conventional calculation or having 0% differential. On reinforcement working volume calculation between Cubicost TRB and conventional calculation have an accurate result which have a differential by 0.59%. Calculation process with Cubicost who has an automatic system is shorter and not taking much time if it is compared to the conventional which has a step-by-step process and formula that the writer should studied first.

Keyword: *Building Information Modeling; Cubicost; conventional; working volume; roof plate*