

ABSTRACT

In the design phase of building construction projects, the achievement can move forward or backward. This indicates the occurrence of iterations due to the interdependent relationships at the level of activities. Critical Path Method (CPM), which has been used commonly in the construction project can not take it into account, so that the scheduling of the design phase is often done only at the level of work packages only, which is more general than the level of activity. When the target project completion time is getting shorter, scheduling must be made more detail on the level of activity so Dependency Structure Matrix (DSM) is required to calculate the interdependent relationships.

In this study, two building that have different levels of complexity chosen as samples to be rescheduled by the CPM and DSM. Before starting the scheduling analysis, duration and correlation of activities analysis is made based on the actual schedule to gather all the information about activities in the design phase. Finally, this research may explain how to apply DSM in both samples and conclude what are the advantages and difficulties encountered during the implementation process.

Keywords: Dependency Strucutre Matrix, DSM; Scheduling; Design Phase.