

Abstract

Wireless Sensor Network or WSN has a very important role for military application, civil, industrial and environment, one of them is object tracking application. Object tracking is a subject that often appears in WSN application, used to record or monitoring area. In the object tracking has occurred two basics operation of data aggregation, update movement of object and query an object existence. Energy limitation in WSN need a right model of data aggregation.

In this final project, applied some model of object tracking tree to solve the problems. Object tracking tree generated by three algorithm, DAT, QCR and Prim by using Visual Studio. Value of performance using the update cost parameter, query cost, communication cost, and message transmit.

From the simulation result has obtained that the DAT algorithm has a lower update cost than Prim algorithm. And QCR algorithm has a lowest query cost between DAT and Prim. Furthermore, to get a low cost of communication cost, used to combine DAT as a update tree and QCR as query tree.

Keywords: Object tracking tree, DAT, QCR, Prim, Communication cost