

Abstract:

This paper describes a problem in the solution of the dining philosophers problem by Gingras [2] that makes it inefficient, instead of the claimed maximal efficiency. A correct implementation is presented. Even then, the solution has other undesirable characteristics and is still not maximally efficiency. Depending on the definition of efficiency, it may not be possible to attain maximal efficiency and be starvation-free at the same time. A better and simpler solution for general mutual exclusion problems, in which the dining philosophers problem is a special case, is presented. This solution can become symmetric if appropriate data structures are used..

Citation:

Yue, K., Dining Philosophers Revisited, Again. SIGCSE Bulletin. vol.23, no.2 , pp60-64, June 1991.