

Reliable Design of Concurrent Software

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Example New and old algorithms for achieving mutual exclusion in a distributed system, with a software procedure (i.e., without resort to special hardware instructions) provide a rich source of examples to demonstrate the power of model checking techniques. To get the flavor of this, let us look at one of the first algorithms that was suggested to solve this problem in 1966 [Hy66].

second assertion, on line 16, states the actual mutual exclusion requirement. If mutual exclusion is correctly maintained, the value of the variable