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The operation at reader side in k-TAS
/* Transmit queries and receives tag responses */

1    Initialize stack Q, temporary stack TQ, a predefined
2       parameter i and system values m, n
3    Q = NULL
4    TQ = NULL
5    n = φ
6
7    Transmit a Start command to start current session
8       and go to line 14
9    while Q!=NULL do
10       m = Pop(Q)
11       n = Pop(TQ)
12       n = n || m
13       Transmit a Query command with prefix value n
14       Wait for tag responses RSj=CRSj||PIDj and
15          detect the positions of collided bits among
16          received CRSj bit strings
17       if (there are bit collisions occurred among
18          received CRSj bit strings) then
19          for each collided bit position
20             retrieve CRSj
21             restore Mj and Bj
22             Push (Q, Bj)
23             Push (TQ, n)
24       else if (there is no collision occurred among
25          received CRSj bit strings) then
26             if (there are bit collisions occurred
27                among received PIDj bit strings) then
28                   retrieve CRSj and the first successive
29                      bit strings o until the 1st collision
30                      bit position among PIDj bit strings
31                   restore Mj and Bj
32                   Push (Q, Bj || o)
33                   Push (TQ, n)
34             else if (there is no collision occurred
35                among received PIDj bit strings) then
36                   Store the tag ID
37             end if
38          end if
39    end while
40    Empty TQ /* release consumed memory*/
41    Transmit a Terminate command to cease current
42       session
```