

## Readers/Writers Monitor Solution

### **monitor ReadersWriters**

**int** nr := 0, nw := 0

**cond** okToRead, okToWrite;

**readEnter()** {

**while** (nw > 0)       // writer is in

**Wait**(okToRead);     // block

    nr++;       // mark that reader is in

}

**readExit()** {

    nr--;       // one reader is out

**Signal**(okToWrite);     // hint to writers that maybe one can get in

}

**writeEnter()** {

**while** (nw > 0 **or** nr > 0)     // someone is in

**Wait**(okToWrite);     // block

    nw++;       // mark that writer is in

}

**writeExit()** {

    nw--;       // one writer is out

**Signal**(okToWrite);     // hint to writers that maybe one can get in

**Broadcast**(okToRead);    // hint to readers that maybe they can get in

}

**end monitor**