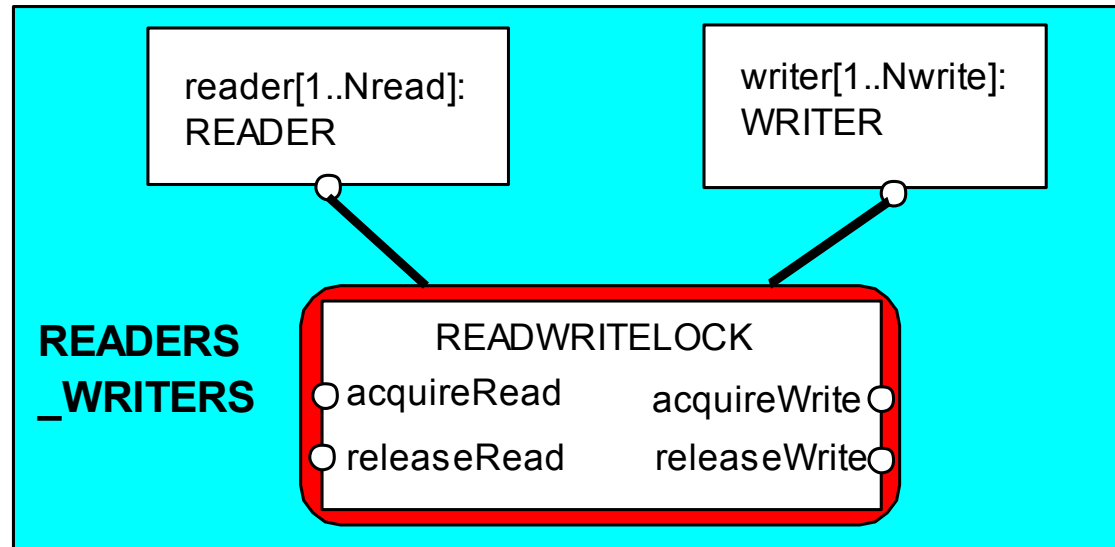


## readers/writers model

### ◆ Shared READWRITELOCK:



`{reader[1..Nread], writer[1..Nwrite]} :: READWRITELOCK)`

### ◆ Alphabet of READWRITELOCK will include

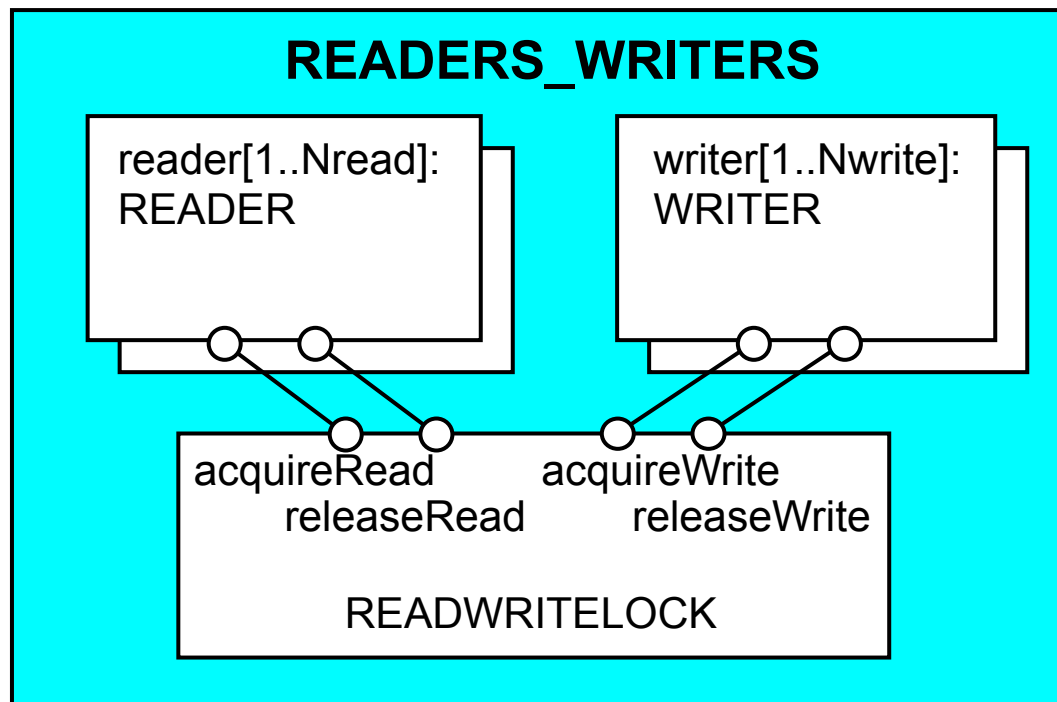
reader[i].acquireWrite and reader[i].releaseWrite and  
writer[i].acquireRead and writer[i].releaseRead,

hence need **alphabet extension** for the readers and writers.

## readers/writers model

---

### ◆ READWRITELOCK using relabelling:



## readers/writers model using relabeling

```
READER = (acquireRead->examine->releaseRead->READER)
\ {examine}.

WRITER = (acquireWrite->modify->releaseWrite->WRITER)
\ {modify}.
```

```
|| READERS_WRITERS
  = (reader[1..Nread] :READER
    || writer[1..Nwrite]:WRITER
    || READWRITELOCK
    )/{reader[1..Nread].acquireRead/acquireRead,
      reader[1..Nread].releaseRead/releaseRead,
      writer[1..Nwrite].acquireWrite/acquireWrite,
      writer[1..Nwrite].releaseWrite/releaseWrite}
  .
```