```
monitor Resource_Allocator {
  int avail = MAXUNITS;
  set units = initial values;
  cond free;   # signaled when a process wants a unit
  procedure acquire(int &id) {
    if (avail == 0)
      wait(free);
    else
      avail = avail-1;
    remove(units, id);
  }
  procedure release(int id) {
    insert(units, id);
    if (empty(free))
      avail = avail+1;
    else
      signal(free);
  }
}
```

Figure 7.6 Resource allocation monitor.