PARKING SHARED RESOURCE

```
CADT Parking
OPERATIONS
  \mathbf{ACTION} \; \mathrm{Enter} \colon \; \mathit{Void}
  \mathbf{ACTION} Leave: Void
SEMANTICS
  DOMAIN:
    TYPE: Parking = \mathbb{N}
    INVARIANT: self \ge 0 \land self \le MAX
    INITIAL: self = 0
  PRE: true
  CPRE: self < MAX
      Enter
  POST: self^{\text{out}} = self^{\text{in}} + 1
  PRE: true
   CPRE: self > 0
      Leave
  POST: self^{out} = self^{in} - 1
```