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# MULTIBUFFER SHARED RESOURCE

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CADT Multibuffer

## OPERATIONS

**ACTION** Put:  $Sequence(ANY)[i]$

**ACTION** Get:  $\mathbb{N}[i] \times Sequence(ANY)[o]$

## SEMANTICS

### DOMAIN:

**STATE:**  $Multibuffer = Sequence(ANY)$

**INVARIANT:**  $Length(self) \leq MAX$

**INITIAL:**  $Length(self) = 0$

**PRE:**  $Length(r) \leq \lfloor MAX/2 \rfloor$

**CPRE:**  $Length(r) \leq MAX - Length(self)$

**Put**(r)

**POST:**  $self = self^{in} + r$

**PRE:**  $n \leq \lfloor MAX/2 \rfloor$

**CPRE:**  $Length(self) \geq n$

**Get**(n, s)

**POST:**  $self^{in} = self + s$