

Tutorial 10

1.

left_arrow : CHAR

left_arrow \notin printing

LeftArrow

ch? : CHAR

ch? = left_arrow

BOF

Editor

left=⟨⟩

Backward

ΔEditor

ch? : CHAR

ch? = left_arrow

right' = ⟨last(left)⟩ \cap right

left' = front(left)

$$T_{\text{Backward}} \triangleq \text{Backward} \vee (\text{BOF} \wedge \text{LeftArrow} \wedge \exists \text{Editor})$$

2.

Drain-OK

ΔStorage_tank

amount?: \mathbb{N}

contents - amount? \geq 0

contents' = contents - amount?

OverDrain

\exists Storage_tank

amount?: \mathbb{N}

r!: seq CHAR

contents - amount? < 0

r!: "Unable to do drain operation!"

Successful-Drain

\exists Storage_tank

amount?: \mathbb{N}

r!: seq CHAR

contents - amount? \geq danger level

r!: "This is a successful drain operation!"

Drain

Drain-OK v OverDrain v Successful-Drain
