$S_{preExit}$

X

$\{ a := \phi \, [0,\text{Entry}] \, [a',Z]$
$i := \phi \, [0,\text{Entry}] \, [i',Z] \}$
if [not $(a < \text{N})$] **goto** Exit
$a' := a + 2$

S

Y

$c := i + 3$

Z

$i' := a' + c$

Exit

Entry

X

$\{ a := \phi \, [0,\text{Entry}] \, [a',Z]$
$i := \phi \, [0,\text{Entry}] \, [i',Z] \}$
$a' := a + 2$

S_{loop}

Y

$c := i + 3$

Z

$i' := a' + c$

$\{ a := \phi \, [0,\text{Entry}] \, [a',Z]$
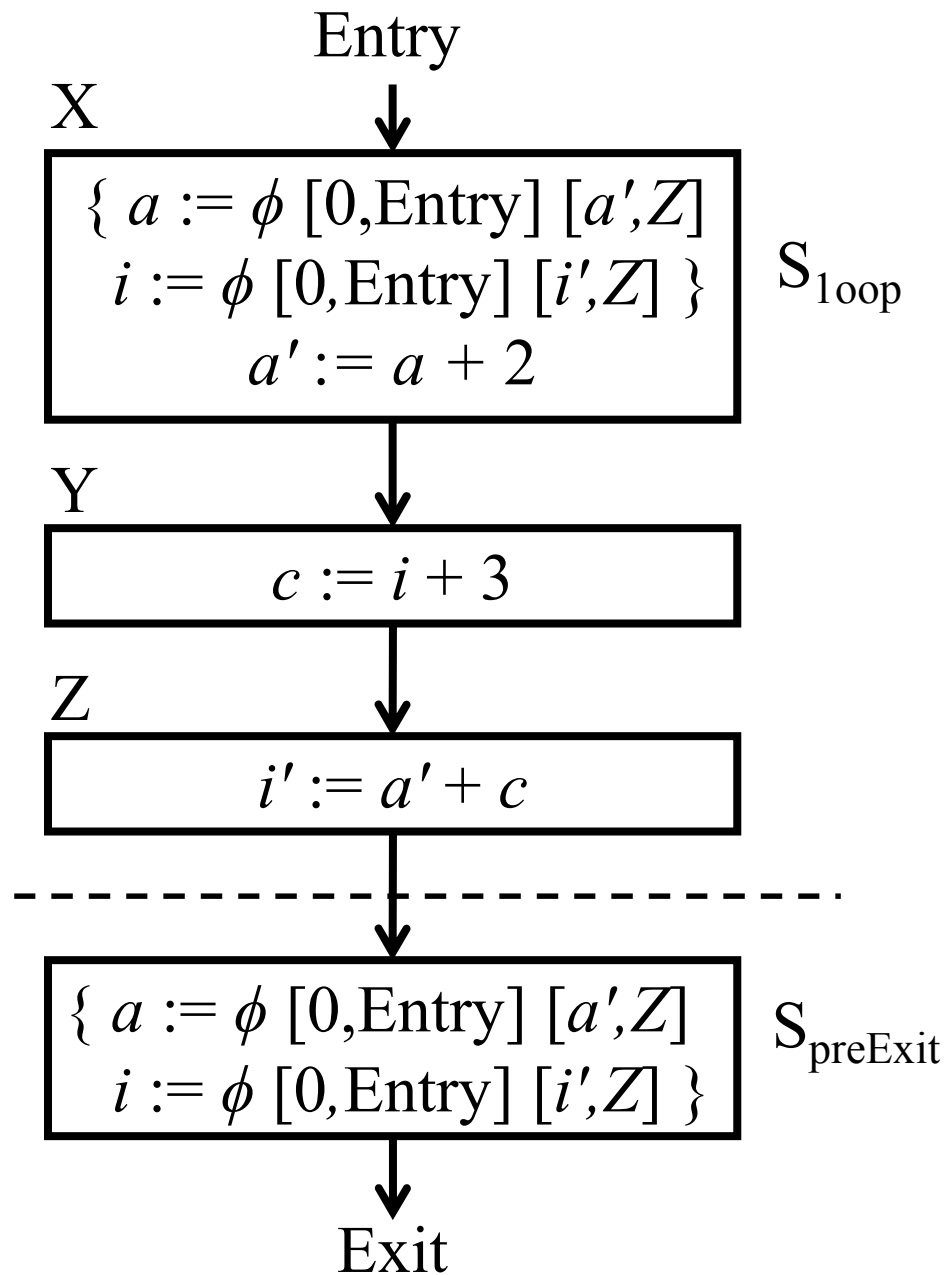$i := \phi \, [0,\text{Entry}] \, [i',Z] \}$

$S_{preExit}$

Exit

Run CCDFG with branches
Assume Well formed flow:
Exit in $(k+1)^{st}$ iteration

CCDFG without branches
Execute S_{loop} k times followed
by $S_{preExit}$

➤ **Use Certified Branch Primitive**