

# Synthesized solution for benchmark 01conclloop3.c

```

solution
├─ (Partial), cond  $b_{12}$ :  $\text{number} \geq 0$ 
│   └─  $\left\{ \begin{array}{l} \text{Case } b_{12} : \\ k_1 = (a_{\text{count}} \leq 4 \cdot V() = \text{evA}()); \cdot U_{\text{count}} = \text{count} + \_i, ? \ 1;) * \neg a_{\text{count}} \leq 4 \\ k_2 = ((a_{\text{count}} \leq 4 \wedge b_{\text{number}} \geq 0) \cdot E() = \text{evA}()); \cdot C_{\text{count}} = \text{count} + \_i, ? \ 1;) * (\neg a_{\text{count}} \leq 4 \vee \neg b_{\text{number}} \geq 0) \end{array} \right.$ 
│       └─ (Complete), cond  $a_{11}$ :  $\text{count} \leq 4$ 
│           └─  $\left\{ \begin{array}{l} \text{Case } a_{11} : \\ k_1 = (a_{\text{count}} \leq 4 \cdot V() = \text{evA}()); \cdot U_{\text{count}} = \text{count} + \_i, ? \ 1;) * \neg a_{\text{count}} \leq 4 \\ k_2 = 1 \cdot ((a_{\text{count}} \leq 4 \wedge b_{\text{number}} \geq 0) \cdot E() = \text{evA}()); \cdot C_{\text{count}} = \text{count} + \_i, ? \ 1;) * \neg a_{\text{count}} \leq 4 \end{array} \right.$ 
│               └─ AComplete
│                   └─  $\left\{ \begin{array}{l} \text{Axioms} : \{V = 1, U = 1, D = 1, T = 1\} \\ k_1 = (a_{\text{count}} \leq 4 \cdot V() = \text{evA}()); \cdot U_{\text{count}} = \text{count} + \_i, ? \ 1;) * \neg a_{\text{count}} \leq 4 \\ k_2 = 1 \cdot 1 \cdot ((a_{\text{count}} \leq 4 \wedge b_{\text{number}} \geq 0) \cdot D() = \text{evA}()); \cdot T_{\text{count}} = \text{count} + \_i, ? \ 1;) * \neg a_{\text{count}} \leq 4 \end{array} \right.$ 
│                   └─  $\left\{ \begin{array}{l} \text{Case } \neg a_{11} : \\ k_1 = (a_{\text{count}} \leq 4 \cdot V() = \text{evA}()); \cdot U_{\text{count}} = \text{count} + \_i, ? \ 1;) * \neg a_{\text{count}} \leq 4 \\ k_2 = 1 \cdot ((a_{\text{count}} \leq 4 \wedge b_{\text{number}} \geq 0) \cdot E() = \text{evA}()); \cdot C_{\text{count}} = \text{count} + \_i, ? \ 1;) * \neg a_{\text{count}} \leq 4 \end{array} \right.$ 
│                       └─ AComplete
│                           └─  $\left\{ \begin{array}{l} \text{Axioms} : \{V = 1, U = 1\} \\ k_1 = (a_{\text{count}} \leq 4 \cdot V() = \text{evA}()); \cdot U_{\text{count}} = \text{count} + \_i, ? \ 1;) * \neg a_{\text{count}} \leq 4 \\ k_2 = 1 \cdot 1 \cdot ((a_{\text{count}} \leq 4 \wedge b_{\text{number}} \geq 0) \cdot 0) * \neg a_{\text{count}} \leq 4 \end{array} \right.$ 

```

Remaining 125 solutions ommitted for brevity.