t28_stacks_1 (TMMh2vgKWkjEKveY9qkFsxw3ra9VZj9XUWN)

October 27, 2020

Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v11\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_stacks\_1 : \iota \Rightarrow o$ be given. Let $v3\_stacks\_1 : \iota \Rightarrow o$ be given. Let $v4\_stacks\_1 : \iota \Rightarrow o$ be given. Let $v5\_stacks\_1 : \iota \Rightarrow o$ be given. Let $v6\_stacks\_1 : \iota \Rightarrow o$ be given. Let $l1\_stacks\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $r1\_stacks\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k13\_stacks\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_stacks\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k7\_stacks\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_stacks\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((\neg v11\_struct\_0\ X0) \wedge ((v2\_stacks\_1\ X0) \wedge ((v3\_stacks\_1\ X0) \wedge ((v4\_stacks\_1\ X0) \wedge ((v5\_stacks\_1\ X0) \wedge ((v6\_stacks\_1\ X0) \wedge (l1\_stacks\_1\ X0)))))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u4\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (k13\_stacks\_1\ X0\ (k7\_stacks\_1\ X0\ X1\ X2) = k13\_stacks\_1\ X0\ X1))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v11\_struct\_0\ X0) \wedge (l1\_stacks\_1\ X0)) \wedge (m1\_subset\_1\ X1\ (u4\_struct\_0\ X0))) \Rightarrow (m1\_subset\_1\ (k6\_stacks\_1\ X0\ X1)\ (u1\_struct\_0\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v11\_struct\_0\ X0) \wedge (l1\_stacks\_1\ X0)) \wedge (m1\_subset\_1\ X1\ (u4\_struct\_0\ X0))) \Rightarrow (m1\_subset\_1\ (k5\_stacks\_1\ X0\ X1)\ (u4\_struct\_0\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((\neg v11\_struct\_0\ X0) \wedge (l1\_stacks\_1\ X0))) \Rightarrow ((v3\_stacks\_1\ X0) \Leftrightarrow (\forall X1.(m1\_subset\_1\ X1\ (u4\_struct\_0\ X0)) \Rightarrow ((\neg r1\_stacks\_1\ X0\ X1) \Rightarrow (X1 = k7\_stacks\_1\ X0\ (k5\_stacks\_1\ X0\ X1)\ (k6\_stacks\_1\ X0\ X1))))) \tag{4}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((\neg v11\_struct\_0\ X0)\wedge((v2\_stacks\_1\ X0)\wedge((v3\_stacks\_1\ X0)\wedge((v4\_stacks\_1\ X0)\wedge((v5\_stacks\_1\ X0)\wedge((v6\_stacks\_1\ X0)\wedge(l1\_stacks\_1\ X0)))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u4\_struct\_0\ X0))\Rightarrow((\neg r1\_stacks\_1\ X0\ X1)\Rightarrow(k13\_stacks\_1\ X0\ (k5\_stacks\_1\ X0\ X1) = k13\_stacks\_1\ X0\ X1)))$$