t40_waybel25 (TMQD-KWTg7jF4g4TdG5saLoiEpMmgCTqJZHo)

October 27, 2020

Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_pre\_topc : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $v6\_pre\_topc : \iota \Rightarrow o$ be given. Let $v1\_waybel25 : \iota \Rightarrow o$ be given. Let $v4\_orders\_2 : \iota \Rightarrow o$ be given. Let $v7\_waybel\_0 : \iota \Rightarrow o$ be given. Let $l1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_waybel24 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_waybel25 : \iota \Rightarrow \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_yellow\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_yellow\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $r1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_waybel\_9 : \iota \Rightarrow o$ be given. Let $l1\_waybel\_9 : \iota \Rightarrow o$ be given. Let $v1\_orders\_2 : \iota \Rightarrow o$ be given. Let $r2\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1) \wedge (l1\_orders\_2\ X1)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k6\_yellow\_1\ X0\ X1))) \Leftrightarrow ((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ X0\ (u1\_struct\_0\ X1)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ (u1\_struct\_0\ X1))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1) \wedge (l1\_orders\_2\ X1)) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ X0\ (u1\_struct\_0\ X1)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ (u1\_struct\_0\ X1))))))) \Rightarrow (\forall X3.((v1\_funct\_1\ X3) \wedge ((v1\_funct\_2\ X3\ X0\ (u1\_struct\_0\ X1)) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ (u1\_struct\_0\ X1))))))) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ (k6\_yellow\_1\ X0\ X1))) \Rightarrow (\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ (k6\_yellow\_1\ X0\ X1))) \Rightarrow (((X4 = X2) \wedge (X5 = X3)) \Rightarrow ((r1\_orders\_2\ (k6\_yellow\_1\ X0\ X1)\ X4\ X5) \Leftrightarrow (r1\_yellow\_2\ X0\ X1\ X2\ X3))))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_pre\_topc\ X0)) \Rightarrow ((\neg v2\_struct\_0\ (k1\_waybel25\ X0)) \wedge (v1\_waybel\_9\ (k1\_waybel25\ X0))) \tag{3}$$

Assume the following.

$$\forall X0.(l1\_waybel\_9\ X0)\Rightarrow((l1\_pre\_topc\ X0)\wedge(l1\_orders\_2\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(l1\_orders\_2\ X1)\Rightarrow((v1\_orders\_2\ (k6\_yellow\_1\ X0\ X1))\wedge(l1\_orders\_2\ (k6\_yellow\_1\ X0\ X1))) \tag{5}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0)\Rightarrow((v1\_waybel\_9\ (k1\_waybel25\ X0))\wedge(l1\_waybel\_9\ (k1\_waybel25\ X0))) \tag{6}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(\forall X1.\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow((r1\_yellow\_0\ X0\ X1)\Rightarrow((X2 = k1\_yellow\_0\ X0\ X1)\Leftrightarrow((r2\_lattice3\ X0\ X1\ X2)\wedge(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((r2\_lattice3\ X0\ X1\ X3)\Rightarrow(r1\_orders\_2\ X0\ X2\ X3))))))) \tag{7}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(\forall X1.\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow((r2\_lattice3\ X0\ X1\ X2)\Leftrightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((X3 \in X1)\Rightarrow(r1\_orders\_2\ X0\ X3\ X2))))) \tag{8}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0)))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_pre\_topc\ X1)\wedge((v6\_pre\_topc\ X1)\wedge((v1\_waybel25\ X1)\wedge(l1\_pre\_topc\ X1)))))\Rightarrow(\forall X2.((\neg v2\_struct\_0\ X2)\wedge((v4\_orders\_2\ X2)\wedge((v7\_waybel\_0\ X2)\wedge(l1\_waybel\_0\ X2\ (k3\_waybel24\ X0\ (k1\_waybel25\ X1))))))\Rightarrow(\forall X3.((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ (k1\_waybel25\ X1)))\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ (k1\_waybel25\ X1)))))))\Rightarrow(\forall X4.((v1\_funct\_1\ X4)\wedge((v1\_funct\_2\ X4\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ (k1\_waybel25\ X1)))\wedge(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ (k1\_waybel25\ X1)))))))\Rightarrow(((X3 = k1\_yellow\_0\ (k6\_yellow\_1\ (u1\_struct\_0\ X0)\ (k1\_waybel25\ X1))\ (k2\_relset\_1\ (u1\_struct\_0\ (k3\_waybel24\ X0\ (k1\_waybel25\ X1)))\ (u1\_waybel\_0\ (k3\_waybel24\ X0\ (k1\_waybel25\ X1))\ X2)))\wedge((r1\_yellow\_0\ (k6\_yellow\_1\ (u1\_struct\_0\ X0)\ (k1\_waybel25\ X1))\ (k2\_relset\_1\ (u1\_struct\_0\ (k3\_waybel24\ X0\ (k1\_waybel25\ X1)))\ (u1\_waybel\_0\ (k3\_waybel24\ X0\ (k1\_waybel25\ X1))\ X2)))\wedge(X4 \in k2\_relset\_1\ (u1\_struct\_0\ (k3\_waybel24\ X0\ (k1\_waybel25\ X1)))\ (u1\_waybel\_0\ (k3\_waybel24\ X0\ (k1\_waybel25\ X1))\ X2))))\Rightarrow(r1\_yellow\_2\ (u1\_struct\_0\ X0)\ (k1\_waybel25\ X1)\ X4\ X3))))))$$