t35_tdlat_2 (TMXjD3Qq5so455DHTEwVwJ6ag5U5oZk9hrP)

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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 $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_pcomps\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tdlat\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tops\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \Rightarrow (k1\_pcomps\_1\ X0\ (k1\_tdlat\_2\ X0\ X1) = ReplSep\ (toset\ (\lambda X2 : \iota.m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\ (\lambda X2 : \iota.\exists X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \wedge ((X2 = k2\_pre\_topc\ X0\ (k1\_tops\_1\ X0\ X3)) \wedge (X3 \in X1)))\ (\lambda X2 : \iota.X2))) \tag{1}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (k2\_pre\_topc\ X0\ (k1\_tops\_1\ X0\ X1) = k2\_pre\_topc\ X0\ (k1\_tops\_1\ X0\ (k2\_pre\_topc\ X0\ (k1\_tops\_1\ X0\ X1))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc\ X0)) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))) \Rightarrow (k1\_tdlat\_2\ X0\ (k1\_tdlat\_2\ X0\ X1) = k1\_tdlat\_2\ X0\ X1) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((l1\_pre\_topc\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \Rightarrow (m1\_subset\_1\ (k2\_pre\_topc\ X0\ X1)\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((l1\_pre\_topc\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \Rightarrow (m1\_subset\_1\ (k1\_tops\_1\ X0\ X1)\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0))\wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))))\Rightarrow (m1\_subset\_1\ (k1\_tdlat\_2\ X0\ X1)\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((l1\_pre\_topc\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))))\Rightarrow(m1\_subset\_1\ (k1\_pcomps\_1\ X0\ X1)\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \tag{7}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\Rightarrow((X2 = k1\_pcomps\_1\ X0\ X1)\Leftrightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow((X3 \in X2)\Leftrightarrow(\exists X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\wedge((X3 = k2\_pre\_topc\ X0\ X4)\wedge(X4 \in X1)))))))) \tag{8}$$

Assume the following.

$$\forall X0.((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\Rightarrow((X2 = k1\_tdlat\_2\ X0\ X1)\Leftrightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow((X3 \in X2)\Leftrightarrow(\exists X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\wedge((X3 = k1\_tops\_1\ X0\ X4)\wedge(X4 \in X1)))))))) \tag{9}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\Rightarrow(k1\_pcomps\_1\ X0\ (k1\_tdlat\_2\ X0\ (k1\_pcomps\_1\ X0\ (k1\_tdlat\_2\ X0\ X1))) = k1\_pcomps\_1\ X0\ (k1\_tdlat\_2\ X0\ X1)))$$