t45_parsp_2 (TMKx-CEAkrGFe6EHGApgKu1DdZjFLcZsJZu6)

October 27, 2020

Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_parsp\_1 : \iota \Rightarrow o$ be given. Let $v1\_parsp\_2 : \iota \Rightarrow o$ be given. Let $l1\_parsp\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $r3\_parsp\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_parsp\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_parsp\_1\ X0) \wedge ((v1\_parsp\_2\ X0) \wedge (l1\_parsp\_1\ X0)))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \Rightarrow ((r2\_parsp\_2\ X0\ X1\ X2\ X3\ X4) \Rightarrow ((X1 \neq X2) \wedge ((X2 \neq X3) \wedge ((X3 \neq X1) \wedge ((X1 \neq X4) \wedge ((X2 \neq X4) \wedge (X3 \neq X4)))))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_parsp\_1\ X0) \wedge ((v1\_parsp\_2\ X0) \wedge (l1\_parsp\_1\ X0)))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \Rightarrow ((r3\_parsp\_2\ X0\ X1\ X2\ X3\ X4) \Leftrightarrow (\neg(\neg(X1 = X2) \wedge (X3 = X4)) \wedge (\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0)) \Rightarrow (\neg(r2\_parsp\_2\ X0\ X5\ X6\ X1\ X2) \wedge (r2\_parsp\_2\ X0\ X5\ X6\ X3\ X4)))))))))) \tag{2}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_parsp\_1\ X0) \wedge ((v1\_parsp\_2\ X0) \wedge (l1\_parsp\_1\ X0)))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow ((r3\_parsp\_2\ X0\ X1\ X1\ X2\ X3) \Rightarrow (X2 = X3)))))$$