t14_petri (TMUFKYXEgXdo8vsJgDRsNaa64hrxrfAcawy)

October 27, 2020

Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v11\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_petri : \iota \Rightarrow o$ be given. Let $v3\_petri : \iota \Rightarrow o$ be given. Let $l1\_petri : \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k11\_petri : \iota \Rightarrow \iota$ be given. Let $u4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k10\_petri : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_petri : \iota \Rightarrow \iota$ be given. Let $u2\_petri : \iota \Rightarrow \iota$ 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 $k3\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_relat\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $g1\_petri : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $l5\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_petri : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))) \Rightarrow (k3\_relset\_1\ X0\ X1\ X2 = k2\_relat\_1\ X2) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge ((\neg v1\_xboole\_0\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))) \Rightarrow (k10\_petri\ X0\ X1\ X2 = k2\_relat\_1\ X2) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X1\ X0)))) \Rightarrow (\forall X4.\forall X5.\forall X6.\forall X7.\ (g1\_petri\ X0\ X1\ X2\ X3 = g1\_petri\ X4\ X5\ X6\ X7) \Rightarrow ((X0 = X4) \wedge ((X1 = X5) \wedge ((X2 = X6) \wedge (X3 = X7))))) \tag{3}$$

Assume the following.

$$\forall X0.((v3\_petri\ X0) \wedge (l1\_petri\ X0)) \Rightarrow (\neg v1\_xboole\_0\ (u2\_petri\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \Rightarrow (\neg v1\_xboole\_0\ (u1\_struct\_0\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.((v2\_petri\ X0)\wedge(l1\_petri\ X0))\Rightarrow(\neg v1\_xboole\_0\ (u1\_petri\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v11\_struct\_0\ X0)\wedge(l5\_struct\_0\ X0))\Rightarrow(\neg v1\_xboole\_0\ (u4\_struct\_0\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.(l1\_petri\ X0)\Rightarrow(m1\_subset\_1\ (u2\_petri\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u4\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))) \tag{8}$$

Assume the following.

$$\forall X0.(l1\_petri\ X0)\Rightarrow(m1\_subset\_1\ (u1\_petri\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u4\_struct\_0\ X0)))) \tag{9}$$

Assume the following.

$$\forall X0.(l5\_struct\_0\ X0)\Rightarrow(l1\_struct\_0\ X0) \tag{10}$$

Assume the following.

$$\forall X0.(l1\_petri\ X0)\Rightarrow(l5\_struct\_0\ X0) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(m1\_subset\_1\ (k3\_relset\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X1\ X0))) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X1\ X0))))\Rightarrow((v1\_petri\ (g1\_petri\ X0\ X1\ X2\ X3))\wedge(l1\_petri\ (g1\_petri\ X0\ X1\ X2\ X3))) \tag{13}$$

Assume the following.

$$\forall X0.(l1\_petri\ X0)\Rightarrow(k11\_petri\ X0 = g1\_petri\ (u1\_struct\_0\ X0)\ (u4\_struct\_0\ X0)\ (k3\_relset\_1\ (u4\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u2\_petri\ X0))\ (k3\_relset\_1\ (u1\_struct\_0\ X0)\ (u4\_struct\_0\ X0)\ (u1\_petri\ X0))) \tag{14}$$

Assume the following.

$$\forall X0.(l1\_petri\ X0)\Rightarrow((v1\_petri\ X0)\Rightarrow(X0 = g1\_petri\ (u1\_struct\_0\ X0)\ (u4\_struct\_0\ X0)\ (u1\_petri\ X0)\ (u2\_petri\ X0))) \tag{15}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((\neg v11\_struct\_0\ X0)\wedge((v2\_petri\ X0)\wedge((v3\_petri\ X0)\wedge(l1\_petri\ X0)))))\Rightarrow((u1\_struct\_0\ X0 = u1\_struct\_0\ (k11\_petri\ X0))\wedge((u4\_struct\_0\ X0 = u4\_struct\_0\ (k11\_petri\ X0))\wedge((k10\_petri\ (u1\_struct\_0\ X0)\ (u4\_struct\_0\ X0)\ (u1\_petri\ X0) = u2\_petri\ (k11\_petri\ X0))\wedge(k10\_petri\ (u4\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ (u2\_petri\ X0) = u1\_petri\ (k11\_petri\ X0)))))$$