

data SP (A B : Set) : Set where

get : (A → SP A B) → SP A B

put : B → ∞(SP A B) → SP A B

$\llbracket _ \rrbracket : SP A B \rightarrow [A]^\infty \rightarrow [B]^\infty$

$\llbracket \text{get } f \rrbracket (a : as) = \llbracket f a \rrbracket as$

$\llbracket \text{put } b \text{ sp} \rrbracket as = b : \llbracket b \text{ sp} \rrbracket as$

: A → ∞ A suspend b (# p) ≡ p

b : ∞ A → A force

data D = F(∞ D) D $\infty D = D_\perp$

F X[∞] X = (A → X) + B × X[∞]

D = ∪ X μ Y. F X Y

$\bigcup_{\mu} X. \bigcup_{\nu} Y. F X Y \cong \bigcup_{\nu} X. F X X$

$\cup 0 \mu 2. 0 + 2$ $\text{rec } 0 \text{ rec } 2. 0_\perp + 2$

$\mu 2 \underbrace{\cup 0. 0 + 2}_{0 \cdot 2}$ $\text{rec } 2 \text{ rec } 0. 0_\perp + 2$

data O2 : Set where $\mu X \nu Y. F X Y$

0 : ∞ O2 → O2 $\cong \mu X \mu Y. (F X Y + \nu Y. F \emptyset Y)$

2 : O2 → O2

data O (Z : Set) : Set where

0 : ∞ (O Z) → O Z

2 : Z → O Z

data ZO : Set where

emb : O ZO → ZO