

# 1 Grammar Sets

- Global Variables:  $\{x, y, z\}$
- Local Variables for Thread t1 :  $\{r1\}$
- Local Variables for Thread t2 :  $\{r2\}$
- Local Variables for Thread t4 :  $\{r0\}$
- Value Set for Thread t1 :  $\{0\}$
- Value Set for Thread t3 :  $\{42\}$

# 2 Configuration

thread t1	thread t2	thread t3	thread t4
(i1)create 0 (i2)write x (i3)write y (i4)write $z \rightarrow \{t2, t3, t4\}$ (i5)read x (i6)write r1 (i7)read r1 (i8)write y	(i9)read y (i10)write r2 (i11)read r2 (i12)write x	(i13)create 42 (i14)write z	(i15)read z (i16)write r0 (i17)read r0 (i18)write x

# 3 Properties

thread t1	thread t2	thread t3	thread t4
(i1) $\{0\}$ (i2) $\{0\}$ (i3) $\{0\}$ (i4) $\{0\}$ (i5) $\{0, 42\} \leftarrow \{i2, i18\}$ (i6) $\{0, 42\}$ (i7) $\{0, 42\} \leftarrow \{i6\}$ (i8) $\{0, 42\}$	(i9) $\{0\} \leftarrow \{i3\}$ (i10) $\{0\}$ (i11) $\{0\} \leftarrow \{i10\}$ (i12) $\{0\}$	(i13) $\{42\}$ (i14) $\{42\}$	(i15) $\{0, 42\} \leftarrow \{i4, i14\}$ (i16) $\{0, 42\}$ (i17) $\{0, 42\} \leftarrow \{i16\}$ (i18) $\{0, 42\}$