

```

┌────────────────────────────────── MODULE Trace ───────────────────────────────────┐

CONSTANT Module

CONSTANT InitState

CONSTANT NextState

Init  $\triangleq$ 
  LET IOUtils  $\triangleq$  INSTANCE IOUtils
  IN
    LET ret  $\triangleq$  IOUtils!IOExecTemplate( $\langle$ "rm", "%s.log",  $\rangle$ ,  $\langle$ Module $\rangle$ )
    IN TRUE

Log(name, args)  $\triangleq$ 
  LET IOUtils  $\triangleq$  INSTANCE IOUtils
    Json  $\triangleq$  INSTANCE Json
  IN
    LET init  $\triangleq$  InitState
      next  $\triangleq$  NextState
      trace  $\triangleq$  [action  $\mapsto$  name,
        args  $\mapsto$  args,
        init  $\mapsto$  init,
        next  $\mapsto$  [ $k \in \{k \in \text{DOMAIN } next : next[k] \neq init[k]\} \mapsto next[k]$ ]]
      ret  $\triangleq$  IOUtils!IOExecTemplate( $\langle$ "/bin/sh", "-c", "echo '%s' >> %s.log",  $\rangle$ ,  $\langle$ Json!ToJsonObject(trace) $\rangle$ )
    IN ret.exitValue = 0

Step(name, action, args)  $\triangleq$ 
   $\wedge$  action
   $\wedge$  action  $\Rightarrow$  Log(name, args)

└──────────────────────────────────────────────────────────────────────────────────┘

\ * Modification History
\ * Last modified Sun Feb 20 08:00:38 PST 2022 by jordanhalterman
\ * Created Sun Feb 20 01:18:19 PST 2022 by jordanhalterman

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