

```

┌────────────────── MODULE BooksLibrary ───────────────────┐
EXTENDS Integers, TLC, Sequences

CONSTANTS Books1, People, NumCopies
ASSUME NumCopies  $\subseteq$  Nat

set ++ x  $\triangleq$  set  $\cup$  {x}
set -- x  $\triangleq$  set  $\setminus$  {x}

--algorithm Books
variables
  library =  $\in$  [Books  $\rightarrow$  NumCopies];
define
  AvailableBooks  $\triangleq$  {b  $\in$  Books : library[b] > 0}
end define ;

process person  $\in$  People
variables
  books = ??
begin
  Person:
    either
      Checkout
    skip ;
    or
      Return
    skip ;
    end either ;
  goto Person ;
end process ;

end algorithm ;
BEGIN TRANSLATION

```

```

\ * Modification History
\ * Last modified Sun May 05 14:42:00 PDT 2019 by jasondebolt
\ * Created Sun May 05 14:40:09 PDT 2019 by jasondebolt

```