SFWRENG 3BB4 - Tutorial 2

Introduction to Java Threads

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McMaster University

September 26, 2016

Outline

McMaster University

Outline

Administrative

Office hour:

- Time: Tuesday, from 5 PM to 6 PM.
- Venue: ITB 204

Outline

Assignment 1

- Deadline: 11:59 PM on Friday September 30, 2016
- Submit via dropbox in Avenue.
- File name: studentId_a1.zip
- Directory structure:

```
studentId_a1
├── q1
│   ├── *.java
│   ├── Makefile
│   ├── run.sh
│   └── partB.doc
├── ...
└── q4
    └── *.lts
```

Assignment 1

Implementation details:

- run infinitely.
- use println(), only 1 character per printing.
- short delay (0.5 sec) between each printing.

Assignment 1

Marking scheme:

- Black box: 50%
- White box: 50%
  - Good variable, constant and method names
  - Good comments
  - No duplicated codes

Assignment 1

Questions?

Outline

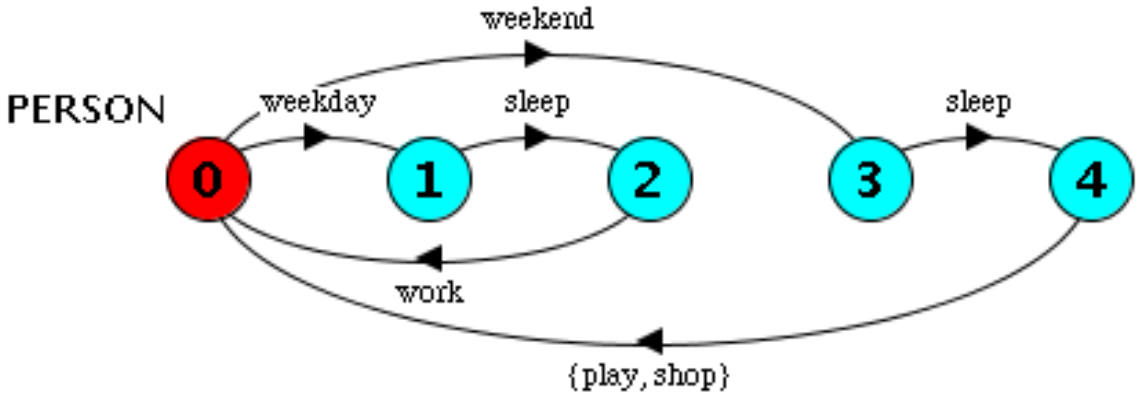
FSP and LTSA

Name convention:

- Action: lowercase. E.g: init, add, ...
- Process: uppercase. E.g: LIGHT, CLOCK

FSP and LTSA

Example 1: Create FSP description for



FSP and LTSA

Example 2: A variable stores values in the range $0..N$ and support the actions *read* and *write*. Model the varaible as a process, VARIABLE, using FSP.

FSP and LTSA

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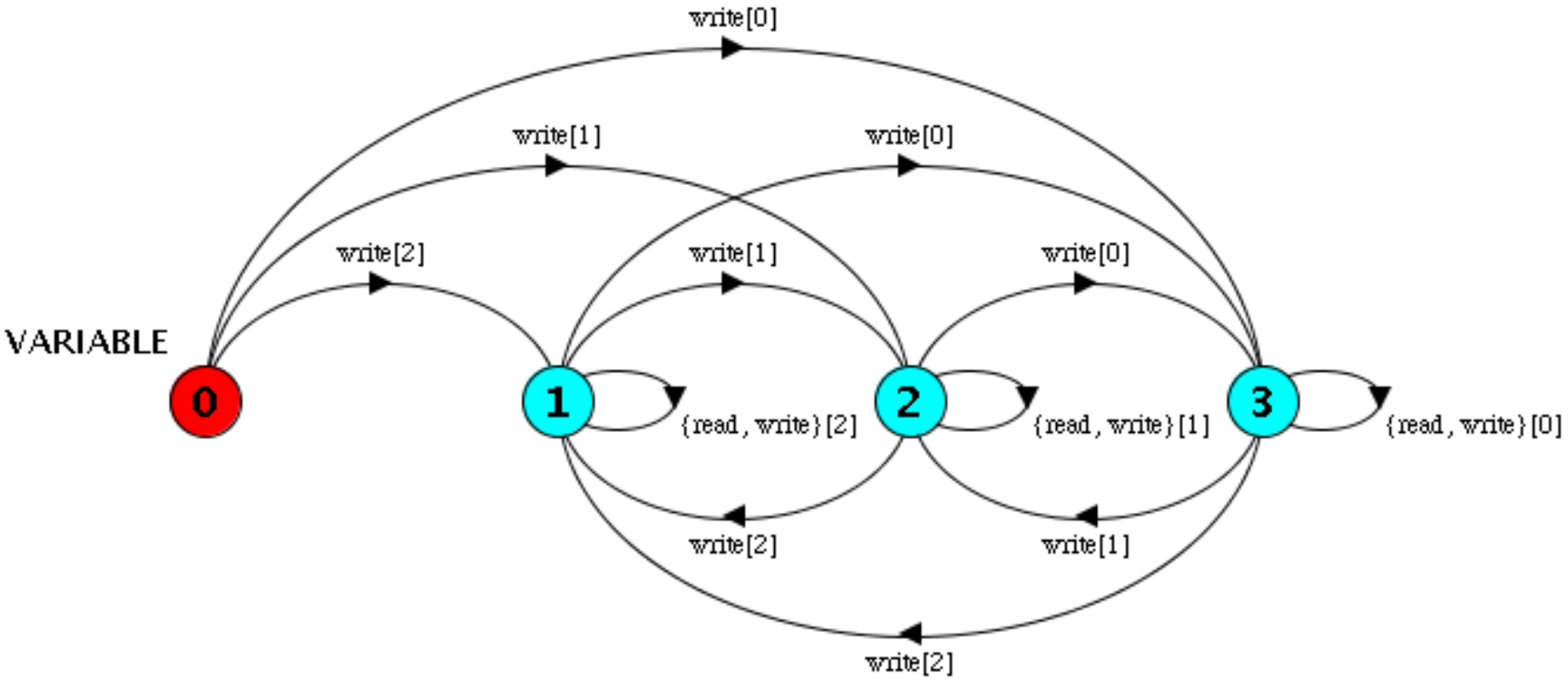
With $N = 2$



FSP and LTSA

Example 3: A drinks dispensing machine charges 15p for a can of Sugarola. The machine accepts coins with denominations 5p, 10p and 20p and gives change. Model the machine as an FSP process, DRINKS

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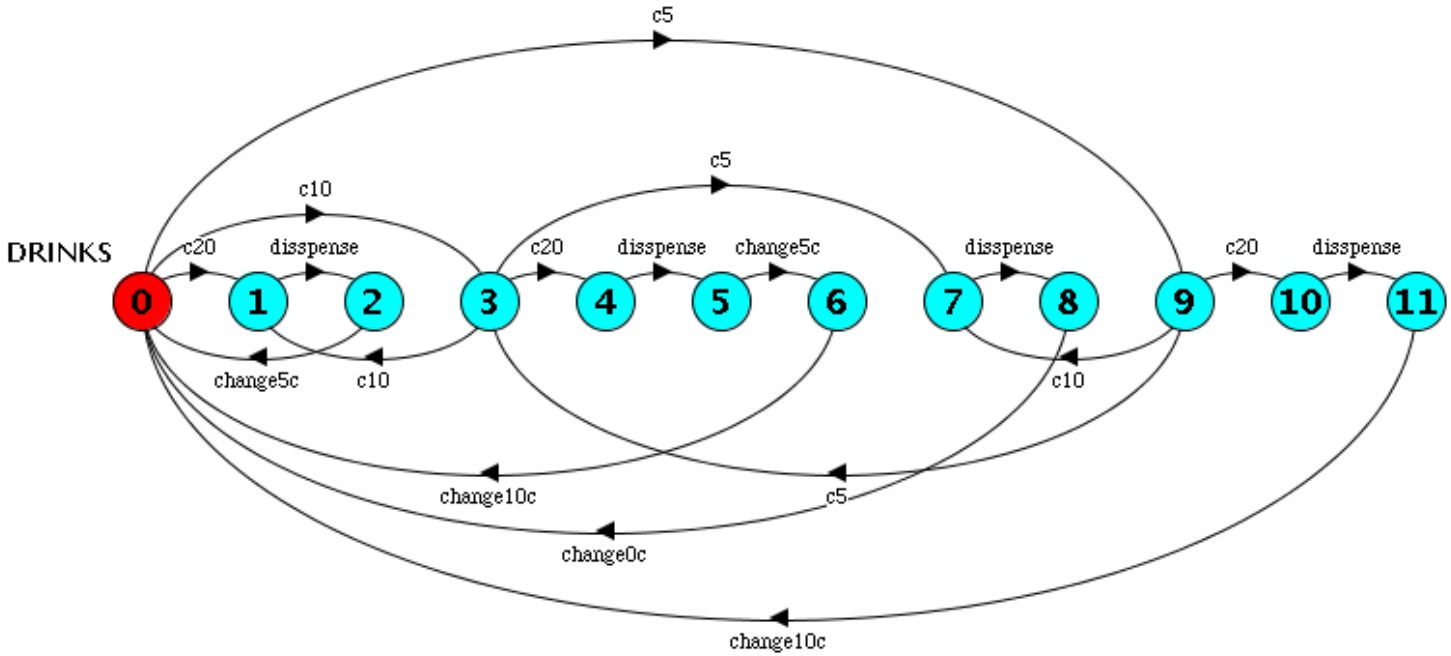

FSP and LTSA

Example 4: A program consists of 2 threads:

- First thread, THREAD1, repeatedly prints "a" twice.
- Second thread, THREAD2, repeatedly prints "b" once.

Model the program as an FSP process, PROG

FSP and LTSA

Example 4: A program consists of 2 threads:

- First thread, THREAD1, repeatedly prints "a" twice.
- Second thread, THREAD2, repeatedly prints "b" once.

Model the program as an FSP process, PROG