

Aleksander Skraastad

Assignment 2

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Chapter 1

Tasks

1.1 Task A

Pass 1

Method for goal: call

- 1: Get next unit task
- 2: If not unit task: return goal accomplished
- 3: Accomplish goal: move to task
- 4: Accomplish goal: perform task
- 5: Goto 1

Example possible unit-tasks:

- call using dials
- call using favorites
- call using speed-dial
- call using voice-recognition

Selection rules for goal: perform task using tab

if tab is favorites:

 accomplish goal: call with favorite

if tab is dials:

```

    accomplish goal: call with dials
  if tab is speed-dial:
    accomplish goal: call with speed-dial
  if tab is voice:
    accomplish goal: call with voice-recognition
  ...
  return goal accomplished

```

1.2 Task B

Pass 2

Method for subgoal: call with favorite

- 1: Locate person in list
- 2: Move finger to entity
- 3: Press finger on entity
- 4: Verify feedback
- 5: Release finger from screen
- 6: Return goal accomplished

Method for subgoal: call with dials

- 1: Retrieve phone number from LTM
- 2: Accomplish goal: enter number
- 3: Locate call button
- 4: Press call button
- 5: Verify feedback
- 6: Release finger from call button
- 7: Return goal accomplished

Pass 3

Method for subgoal: enter number

- 1: Recall digit from WM
- 2: Locate number on screen
- 3: Move finger to position
- 4: Press finger on digit
- 5: Verify feedback
- 6: Release finger from digit
- 7: If more digits: Goto 1
- 8: Return goal accomplished

1.3 Task C

Execution time calculation for Favorites call:

Trace:

- 1: Selection rule for goal: perform task using tab
- 2: If tab is favorites: accomplish goal call by favorites
- 3: Method for goal: call by favorites
- 4: 1. Locate person in list (CP)
- 5: 2. Move finger to entity (H)
- 6: 3. Press finger on entity (B)
- 7: 4. Verify feedback (M)
- 8: 5. Release finger from screen (H)
- 9: 6. Return goal accomplished
- 10: Return goal accomplished

$$10 * 0.1 + CP + 2H + B + M = 4.3s$$

Execution time calculation for Digits call:

Trace:

```
1: Selection rule for goal: perform task using tab
2: If tab is favorites: accomplish goal call by digits
3: Method for goal: call by digits
4:   Retrieve from LTM
5:   Accomplish goal: enter number
6:     1. Get digit from WM (CP)
7:     2. Locate number on screen (CP)
8:     3. Move finger to position (H)
9:     4. Press finger on digit (B)
10:    5. Verify feedback (M)
11:    6. Release finger from digit (H)
12:    7. If more digits: Goto 1
13:    8. Return goal accomplished
14:   Return goal accomplished
15: Return goal accomplished
```

$$15 * 0.1 + 8 * (2CP + 2H + B + M) = 37.5s$$