

# Øving 2 - Kognitive Arkitekturer: Mentalprogrammering i NGOMSL

Marius Aarsnes

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# 1 Angi typiske ”unit-tasks” for telefon-appen og modeller topp-nivået i NGOMSL. Husk å ta med ”unit-task level”.

## Top-level model:

Method for goal: call

- Get next unit task
- If no more unit task: return goal accomplished
- Accomplish goal: move to task
- Accomplish goal: perform task
- goto 1

Typical ”Unit tasks”:

- Call Using Favourites
- Call Using Recently
- Call Using Digits
- Call Using Contacts
- Check For Voice Mail

Selection Rules for making a call

- If method is call by favourites, then accomplish goal of calling by favourites
- If method is call by digits, then accomplish goal of calling by digits
- If method is call by recently, then accomplish goal of calling by recently
- If method is call by contacts, then accomplish goal of calling by contacts

## 2 Modeller målet ”ring” (call), som ringer opp en person.

- Method for accomplishing goal of calling by favourites
  1. Retain name of person to call
  2. Locate name on screen
  3. Move finger to location of name
  4. Click name
  5. Return with goal accomplished
- Method of accomplishing goal of calling by number
  1. Recall number
  2. Accomplish goal of typing digits
  3. Locate call-button
  4. Press call-button
  5. Return with goal accomplished
- Method to accomplish goal of typing digits
  1. Decide: if no more digits to type, then return with goal accomplished
  2. Retain next digit
  3. Locate digit on screen
  4. move finger to digit location
  5. Press digit
  6. Goto 1

### 3 Beregn utførelsestid for alternativene (execution time):

( $CP = 1.2$ ,  $B = 0.1$ ,  $H = 0.4$ ,  $K = 0.2$ ,  $M = 1.2$ ,  
 $P = 1.1$  - alt i sekunder)

Execution time for Favourites:

1. Selection rule for goal for making a call
2. If method is call by favourites, then accomplish goal of calling by favourites
3. Method to accomplish call by favourites
  - (a) Retain name of person to call (CP)
  - (b) Locate name on screen (CP)
  - (c) Move finger to location of name (H)
  - (d) Click name (B)
  - (e) Return goal accomplished
4. Return goal accomplished

$$9 \times 0.1 + 2CP + H + B = 0.9 + 2.4 + 0.4 + 0.1 = 3.6$$

Execution time for Number:

1. Selection rule for goal for making a a call
2. If method is call by Number, then accomplish goal of calling by number
3. Method to accomplish call by number
  - (a) Recall number (M)
  - (b) Accomplish goal of typing digits
    - i. Decide if no more digits to type, then return with goal accomplished
    - ii. Retain next digit (CP)
    - iii. Locate digit on screen (CP)
    - iv. Move finger to digit location (H)
    - v. Press digit (B)
    - vi. Goto 1
  - (c) Locate call-button (CP)
  - (d) Move finger to location of call-button (H)
  - (e) Press call-button (B)
  - (f) Return goal accomplished
4. Return goal accomplished

$$15 \times 0.1 + M + 8(2CP + H + B) + CP + H + B = 1.5 + 1.2 + 23.2 + 1.2 + 0.4 + 0.1 = 27.6$$