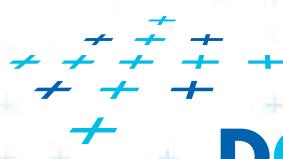
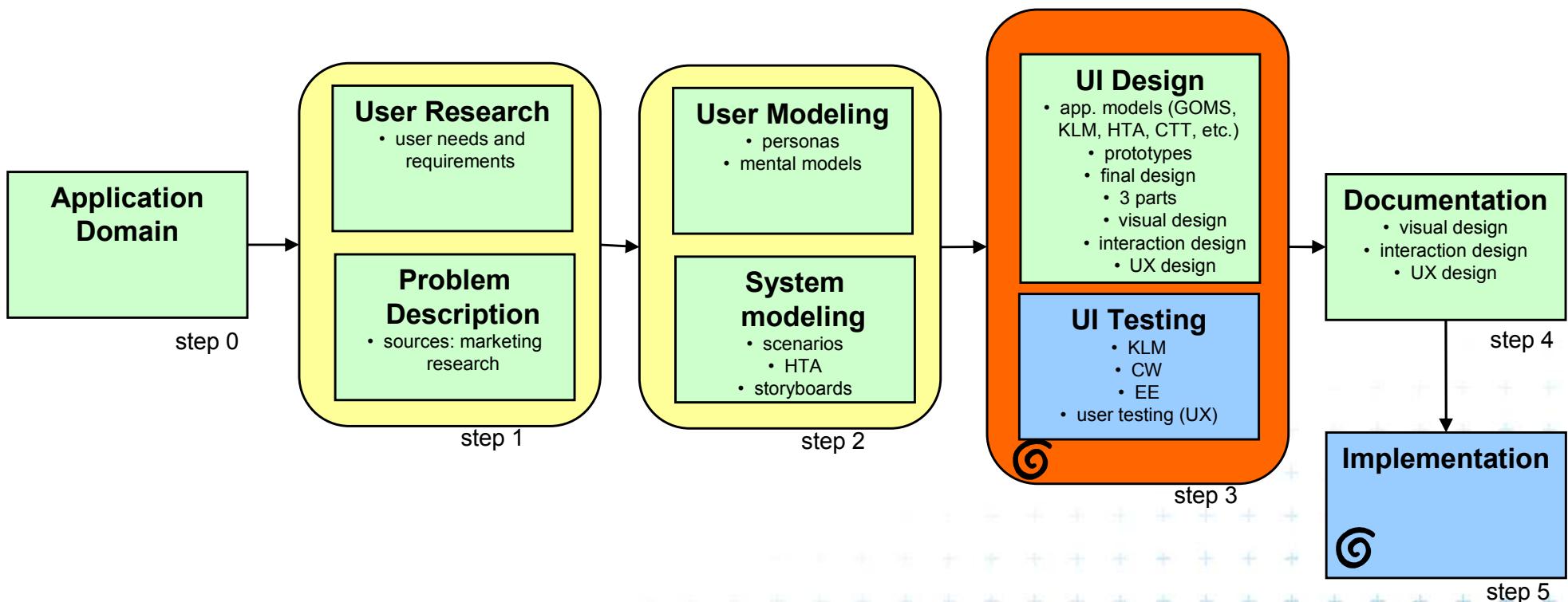


DEPARTMENT OF COMPUTER GRAPHICS AND INTERACTION

NUR - Prototyping

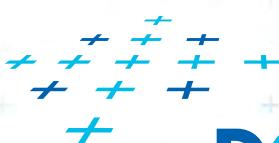
Low Fidelity

User interface design - big picture



Lo-Fi Prototyping

- hours/days to develop
- many alternatives
- no final interaction techniques
- not on target devices
- sketchy look&feel
 - paper/electronic paper
- lab tests



DCGI

NUR - Prototyping (low fidelity)



Sketch vs. Prototype

■ SKETCH

■ Evocative

■ Suggest

■ Explore

■ Question

■ Propose

■ Provoke

■ Tentative

■ Noncommittal

■ PROTOTYPE

■ Didactic

■ Describe

■ Refine

■ Answer

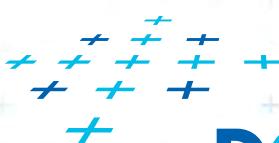
■ Test

■ Resolve

■ Specific

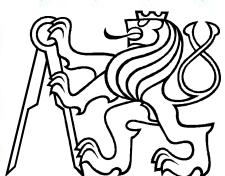
■ Depiction

Source: Buxton 2007

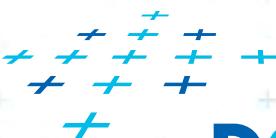
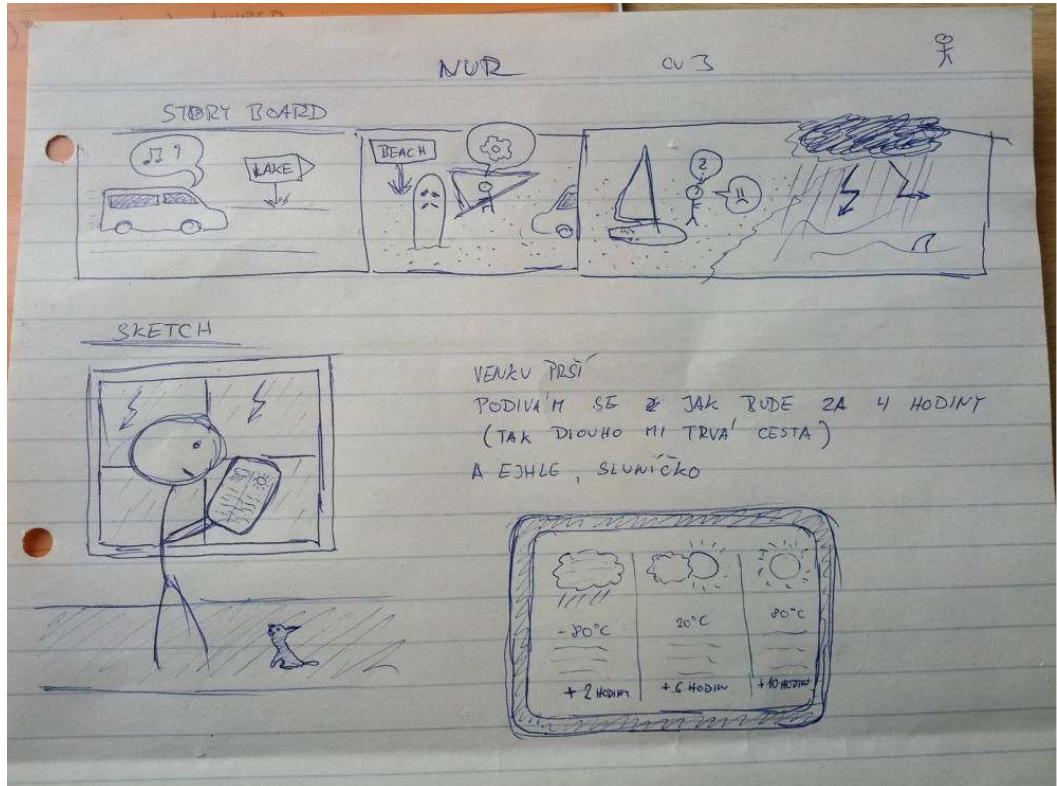


DCGI

NUR - Prototyping (low fidelity)



Sketches from practices

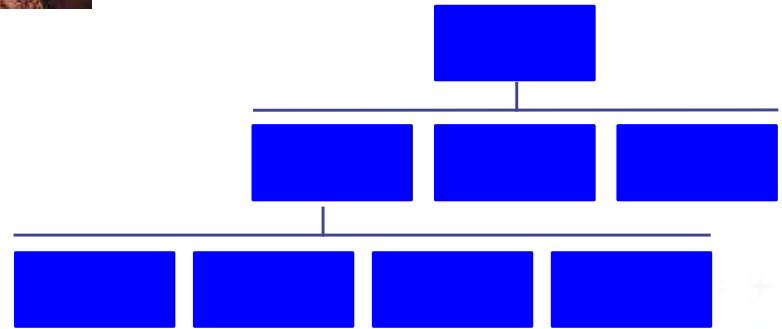


NUR - Prototyping (low fidelity)



What must be done before

- User research (D1)

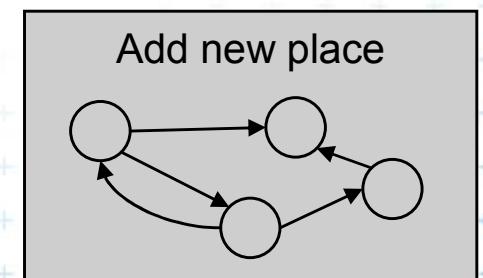


- Task analysis, UI modelling
 - HTA, STN



NUR - Prototyping (low fidelity)

(6)

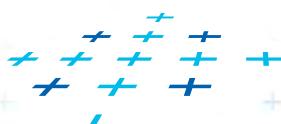
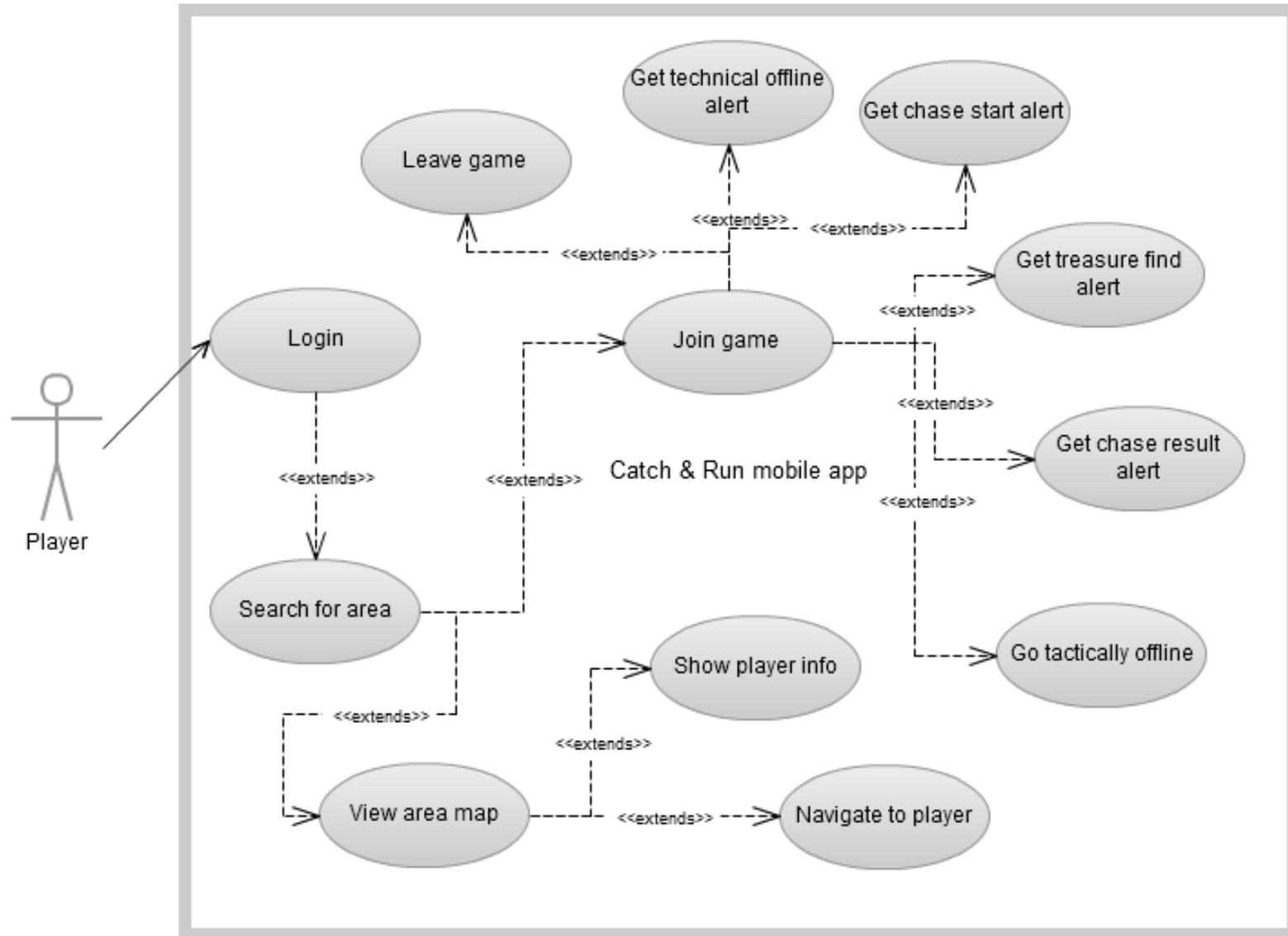


Catch&Run: description

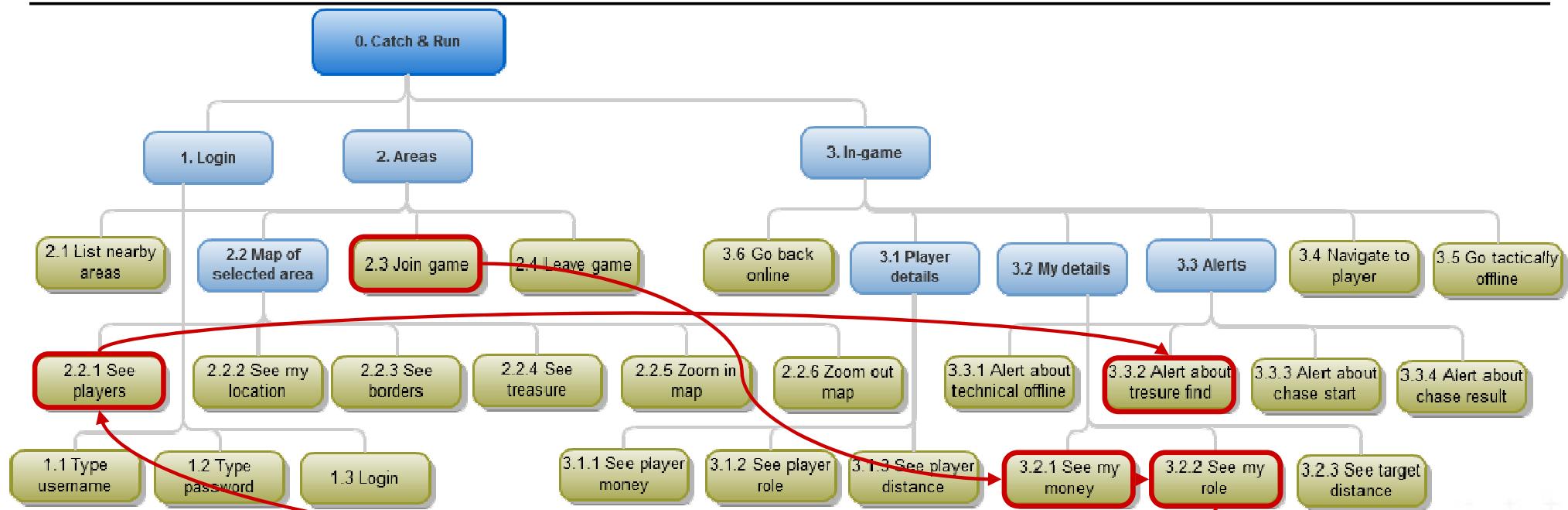
- Chase in given physical area
- Goal: game money
- Players roles
 - Idler
 - Catcher
 - Runner
- Technology
 - mobile phone
 - GPS, data connection



Catch&Run: use-cases diagram



Catch&Run: HTA



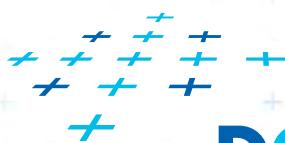
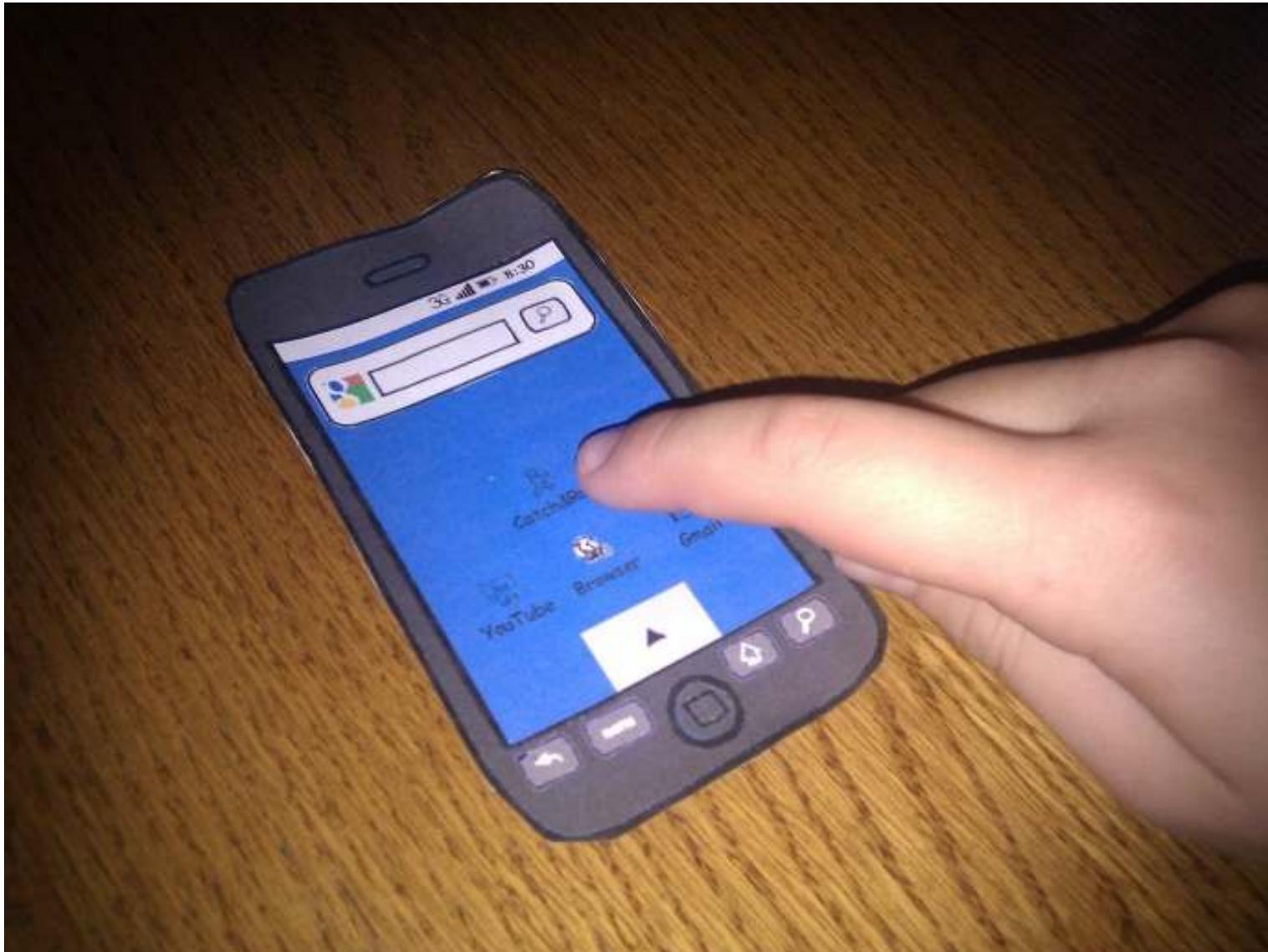
- Plan: Try to find a treasure as Idler and avoid contact with others
 - 2.3 Join game
 - 3.2.1 See my money
 - 3.2.2 See my role
 - 2.2.1 See players
 - 3.3.2 Alert about treasure find



DCGI



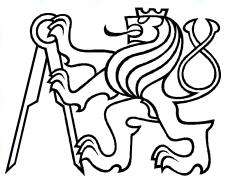
Catch&Run: prototype



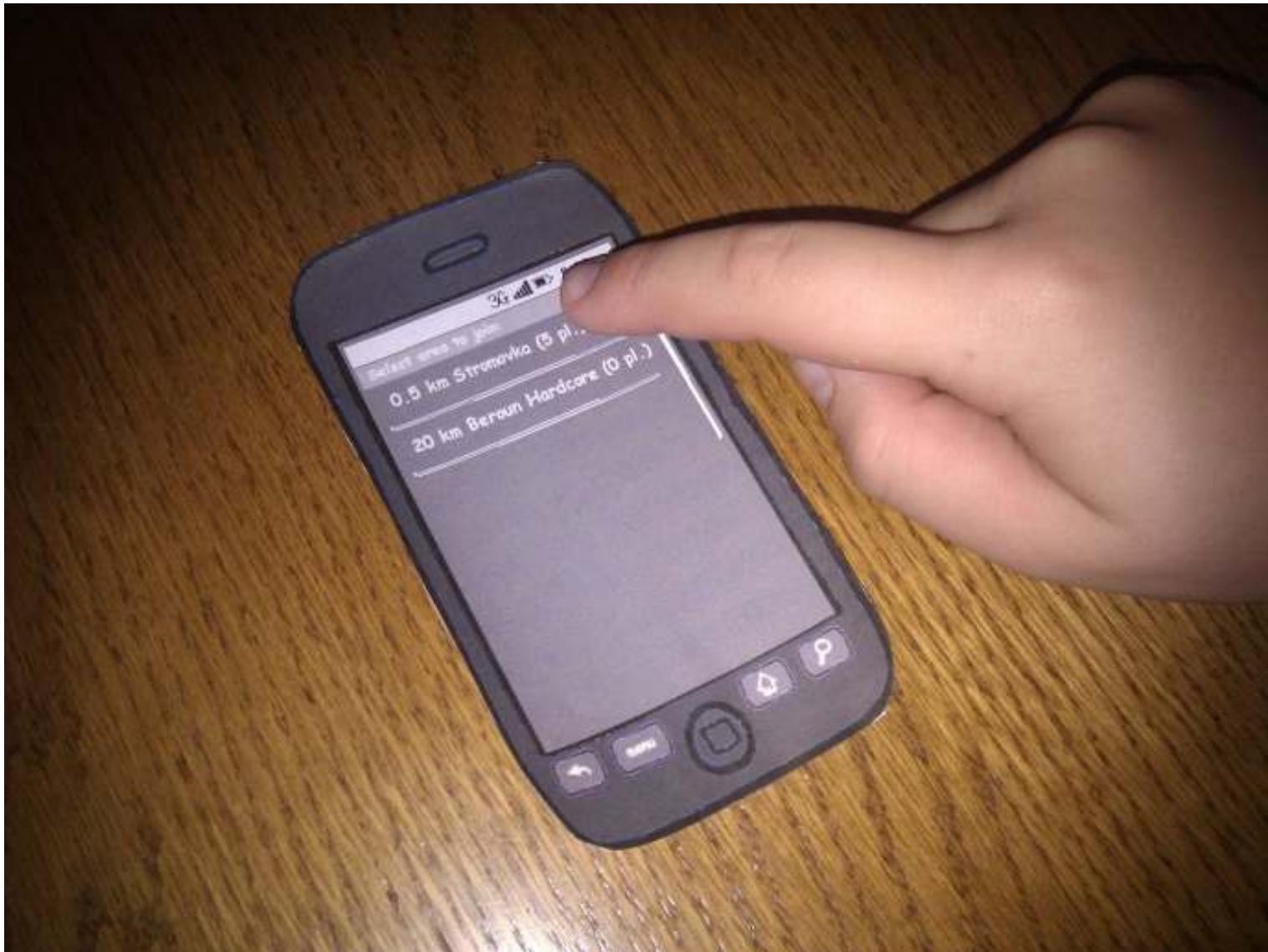
DCGI

NUR - Prototyping (low fidelity)

(10)

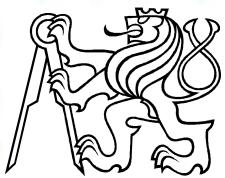
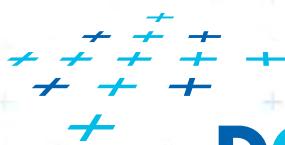


Catch&Run: prototype

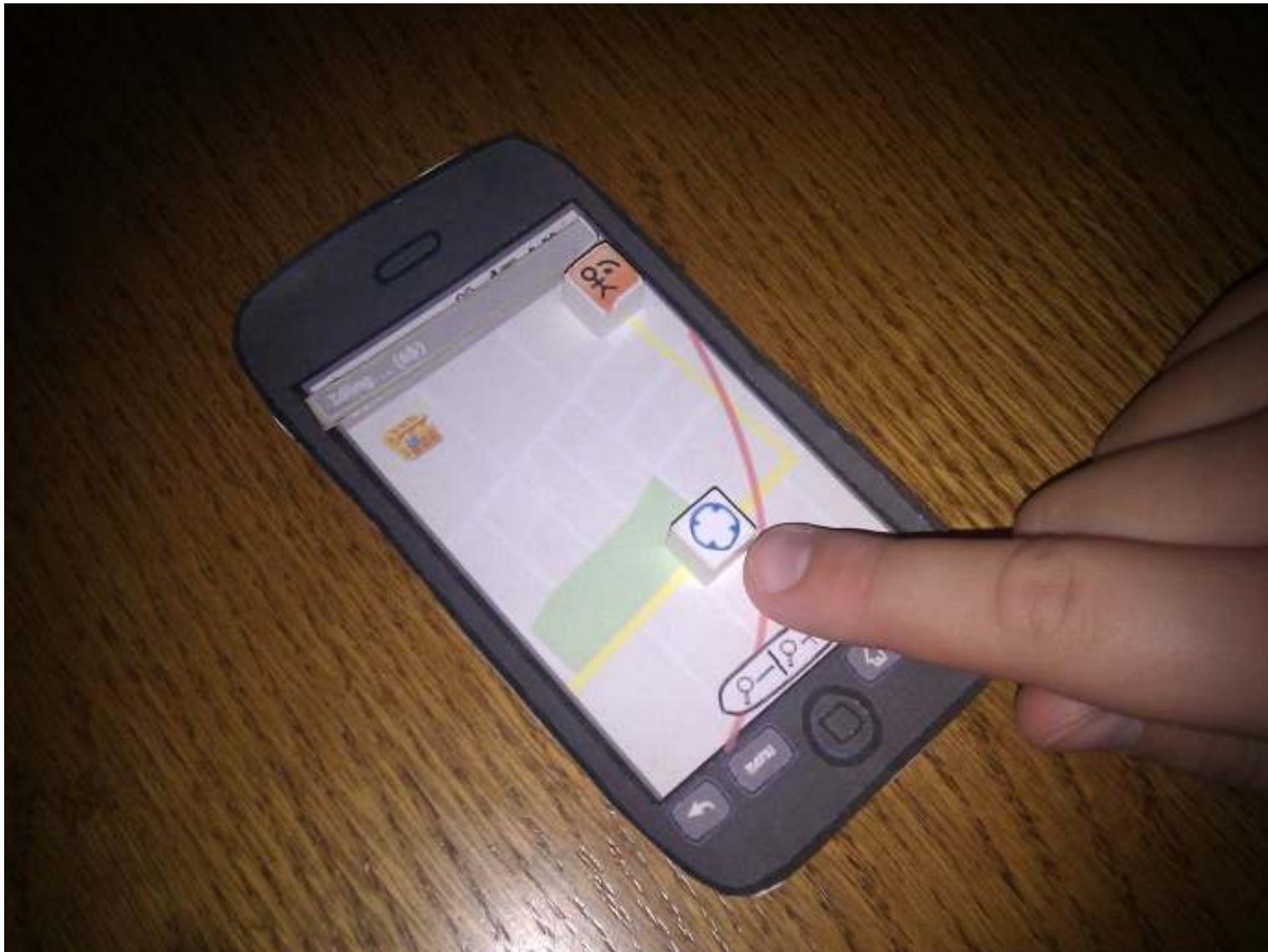


NUR - Prototyping (low fidelity)

(11)

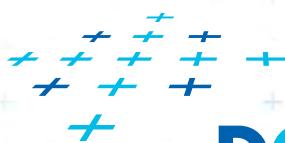


Catch&Run: prototype



NUR - Prototyping (low fidelity)

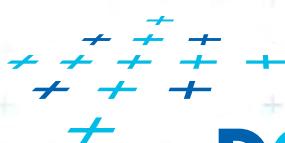
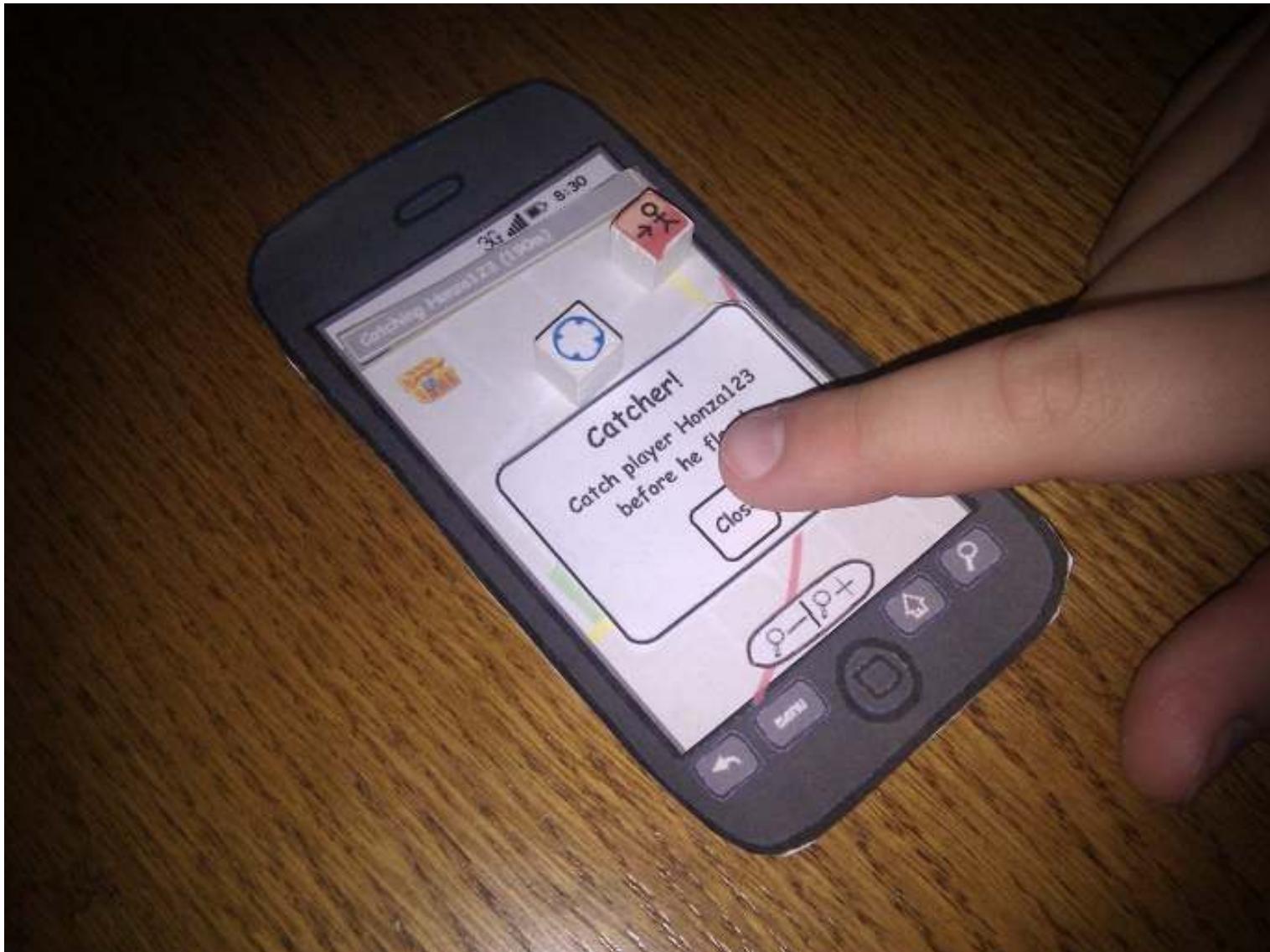
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DCGI

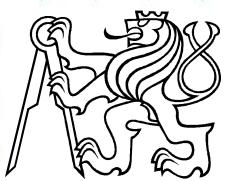


Catch&Run: prototype

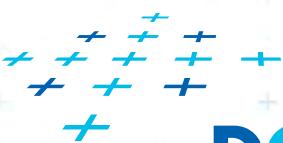
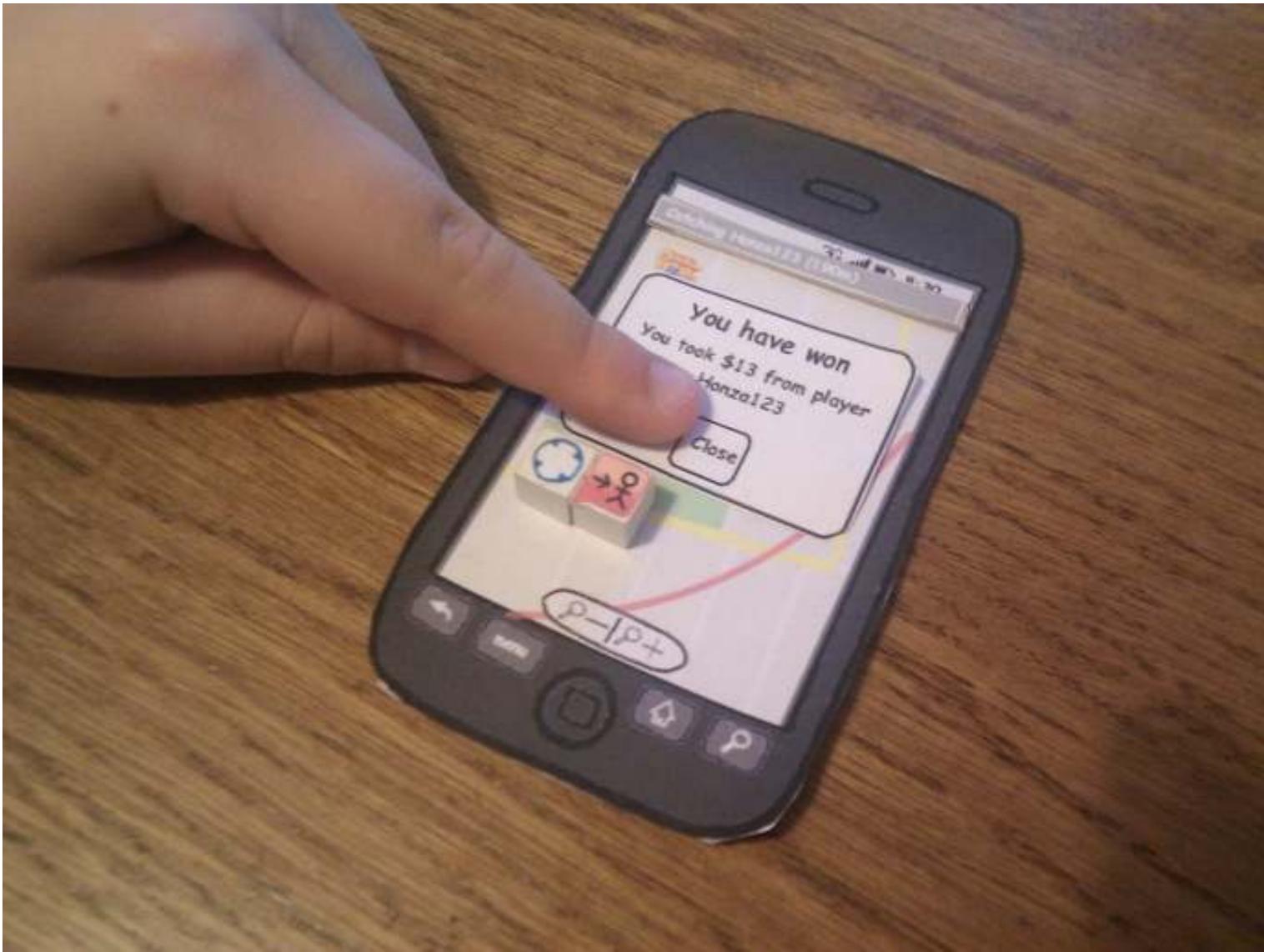


DCGI

NUR - Prototyping (low fidelity)

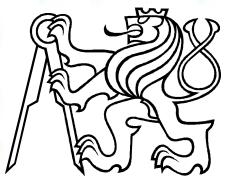


Catch&Run: prototype

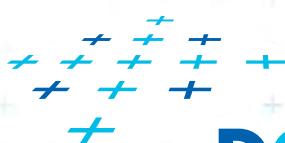
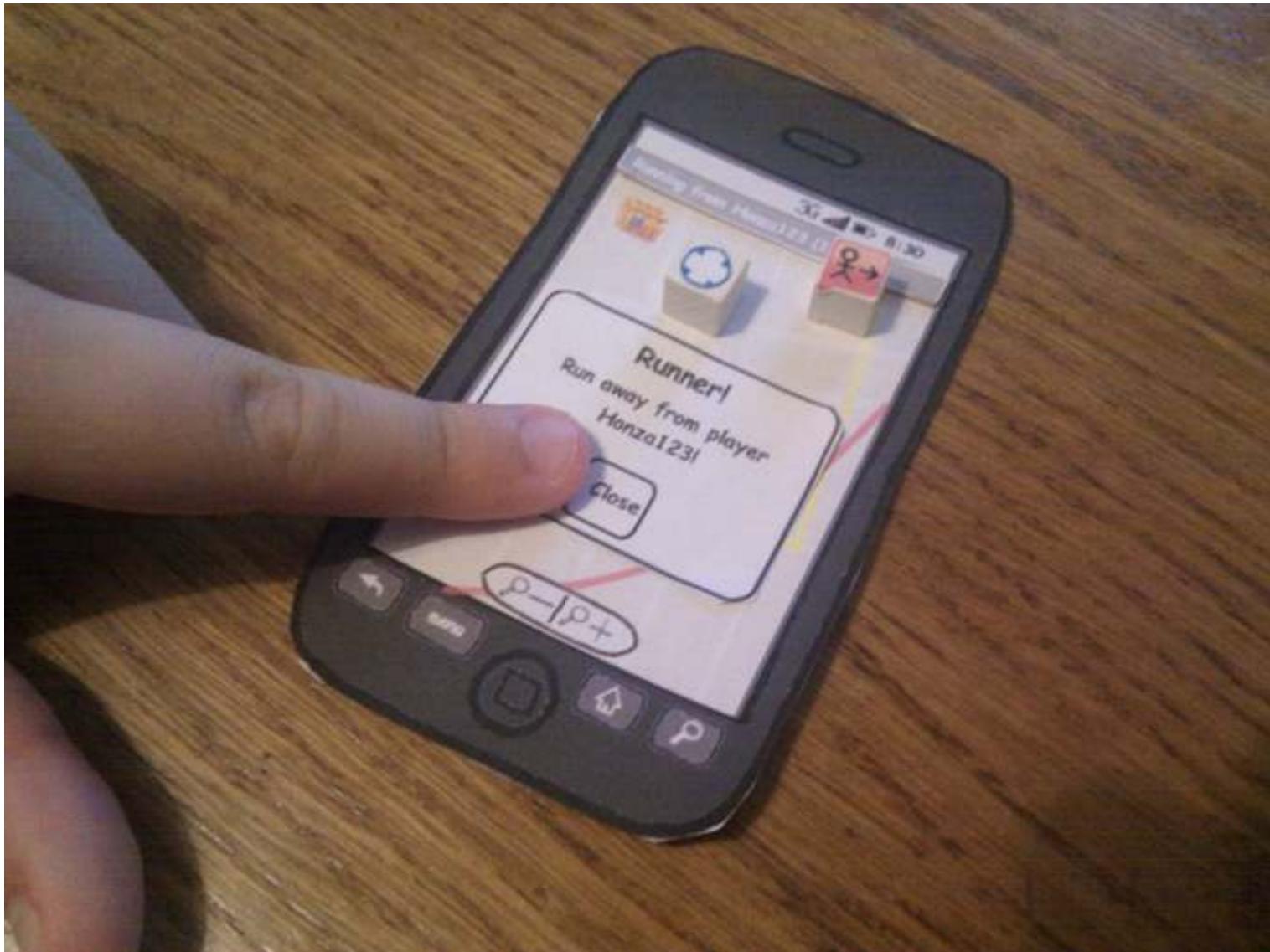


DCGI

NUR - Prototyping (low fidelity)



Catch&Run: prototype

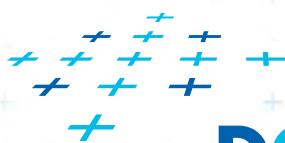
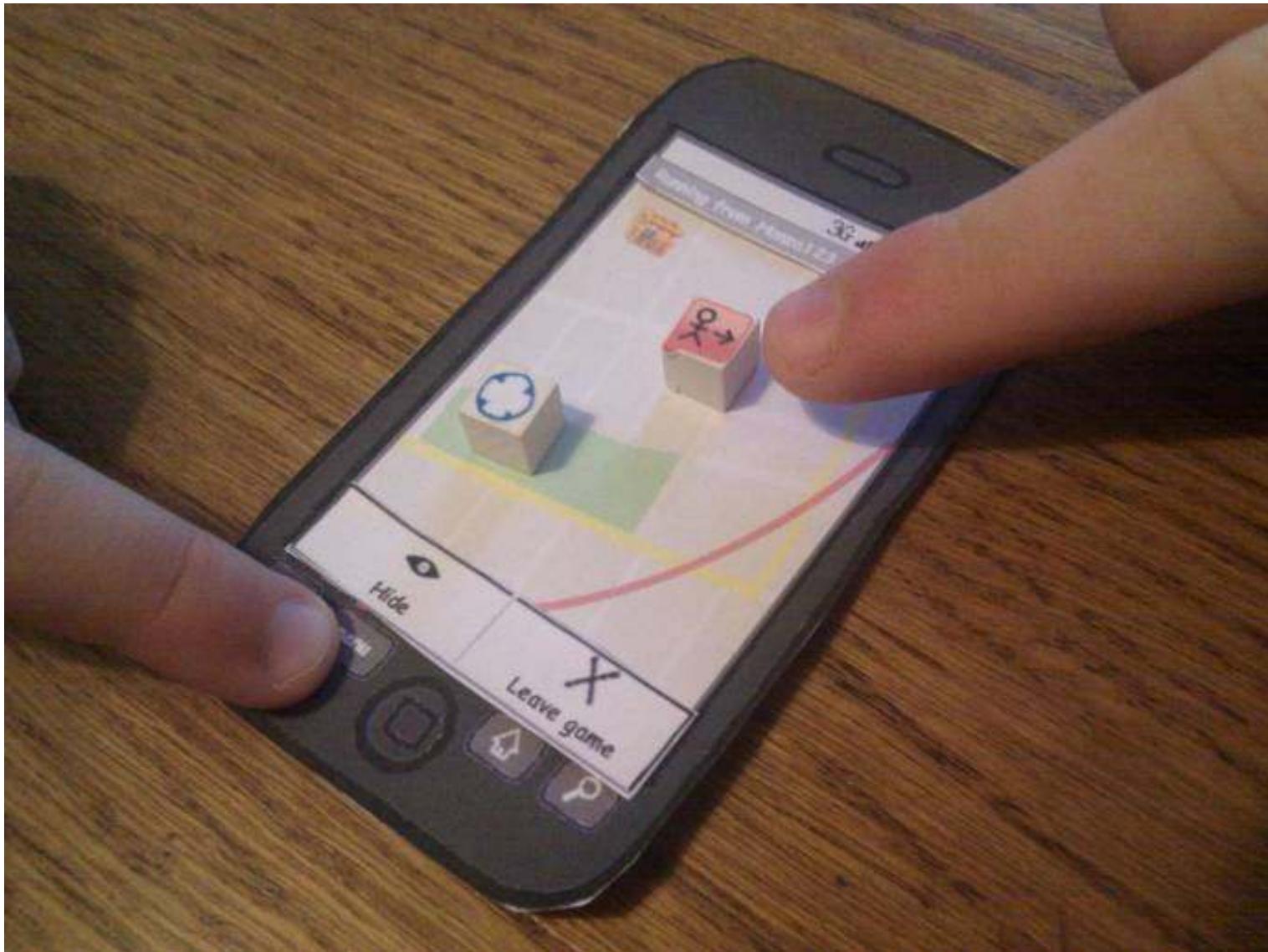


DCGI

NUR - Prototyping (low fidelity)



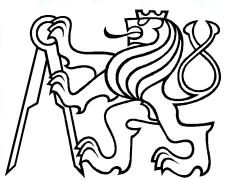
Catch&Run: prototype



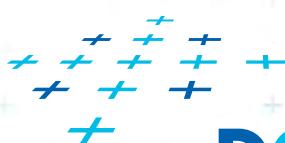
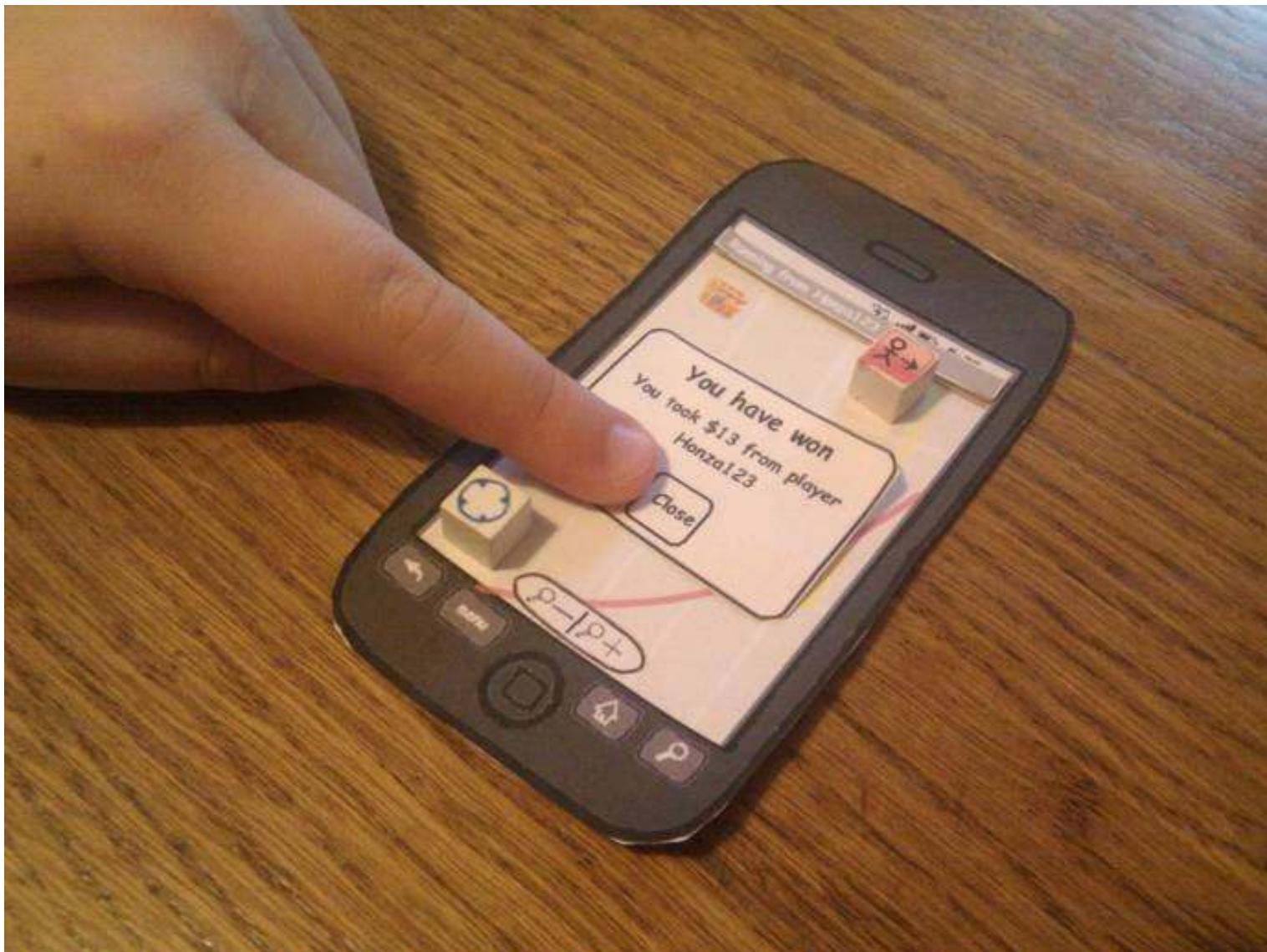
DCGI

NUR - Prototyping (low fidelity)

(16)

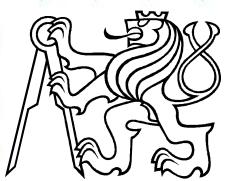


Catch&Run: prototype

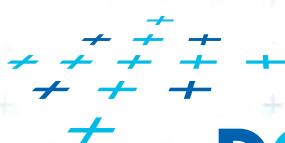
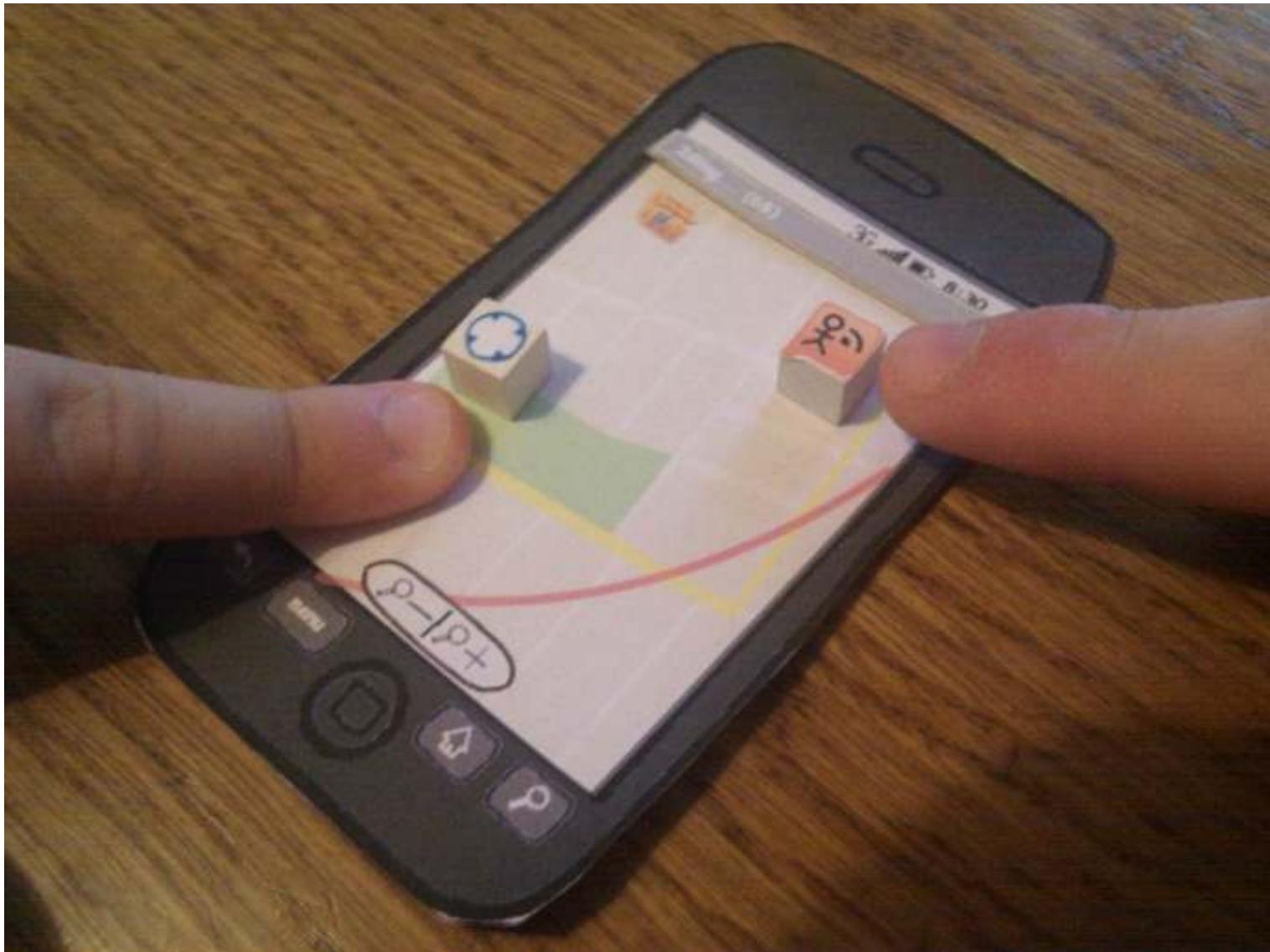


DCGI

NUR - Prototyping (low fidelity)

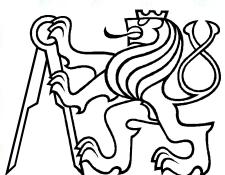


Catch&Run: prototype

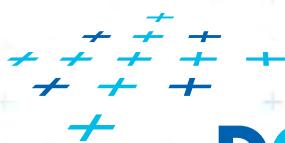
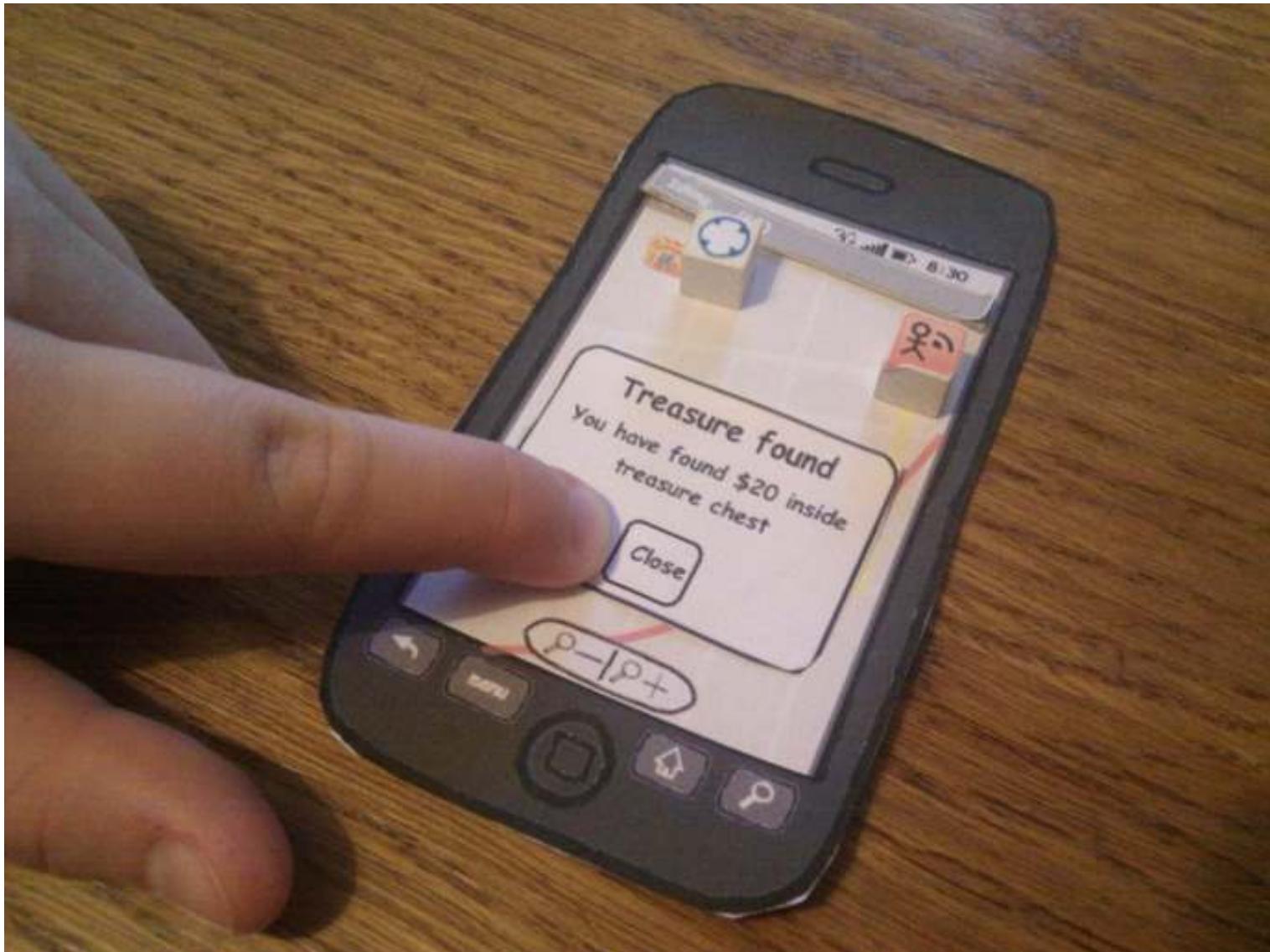


DCGI

NUR - Prototyping (low fidelity)

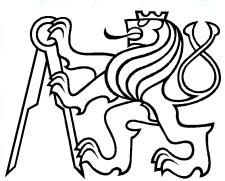


Catch&Run: prototype

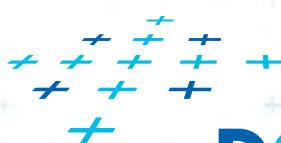


DCGI

NUR - Prototyping (low fidelity)



Catch&Run: prototype creation



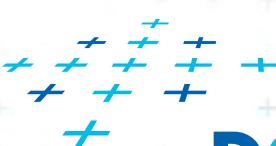
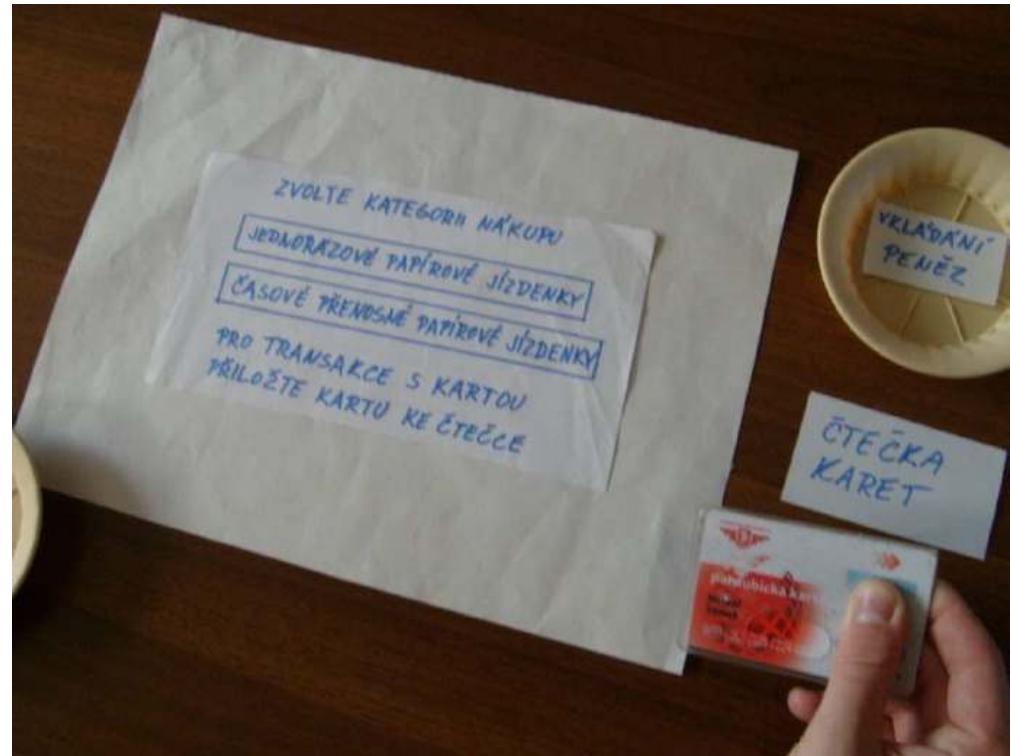
DCGI

NUR - Prototyping (low fidelity)



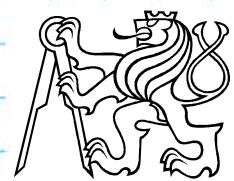
Ticket kiosk

- Ticket kiosk for city transport
 - electronic ticket
 - electronic wallet
 - paper ticket
- Goal: intuitive UI for people struggling with IT

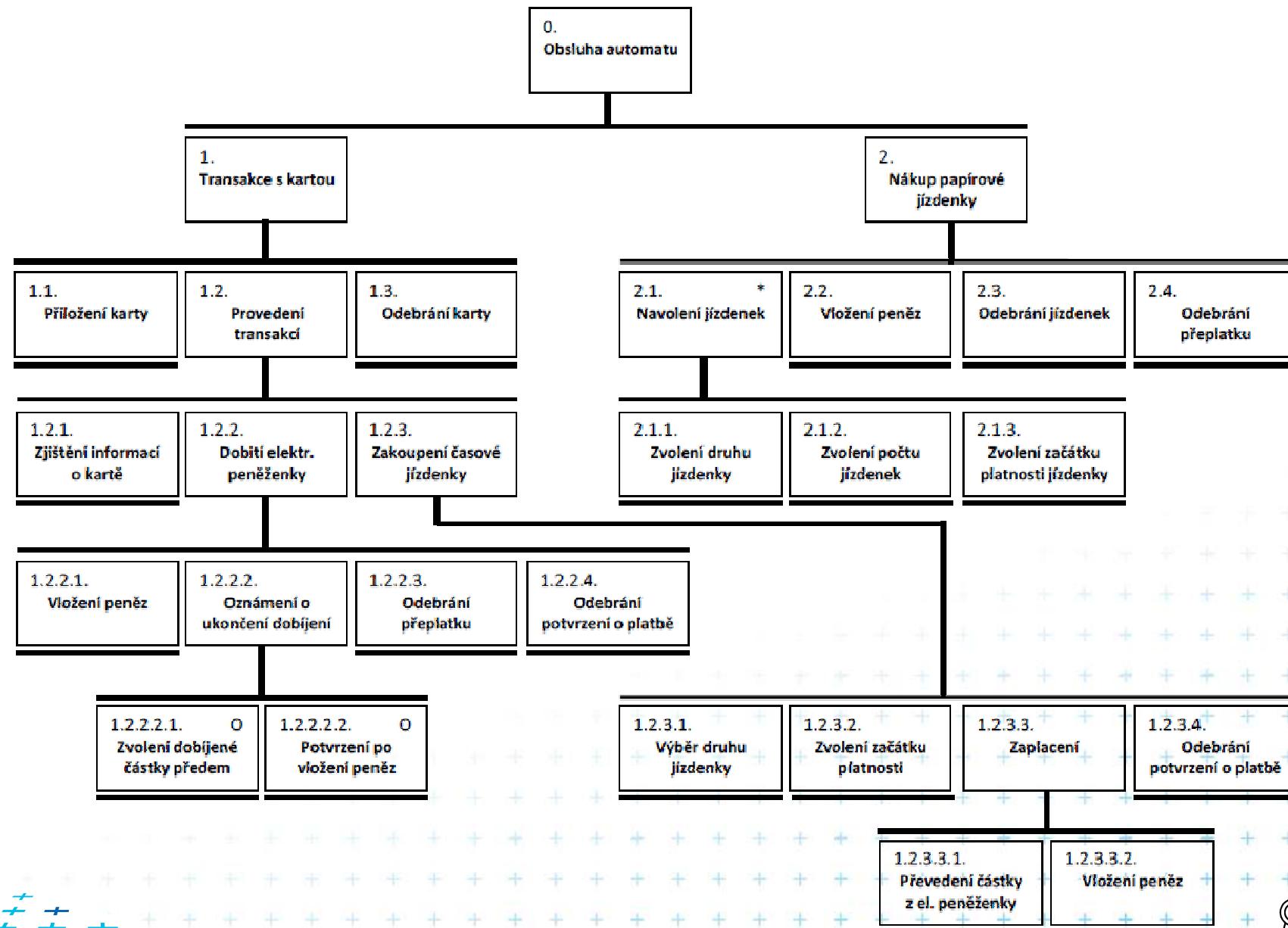


DCGI

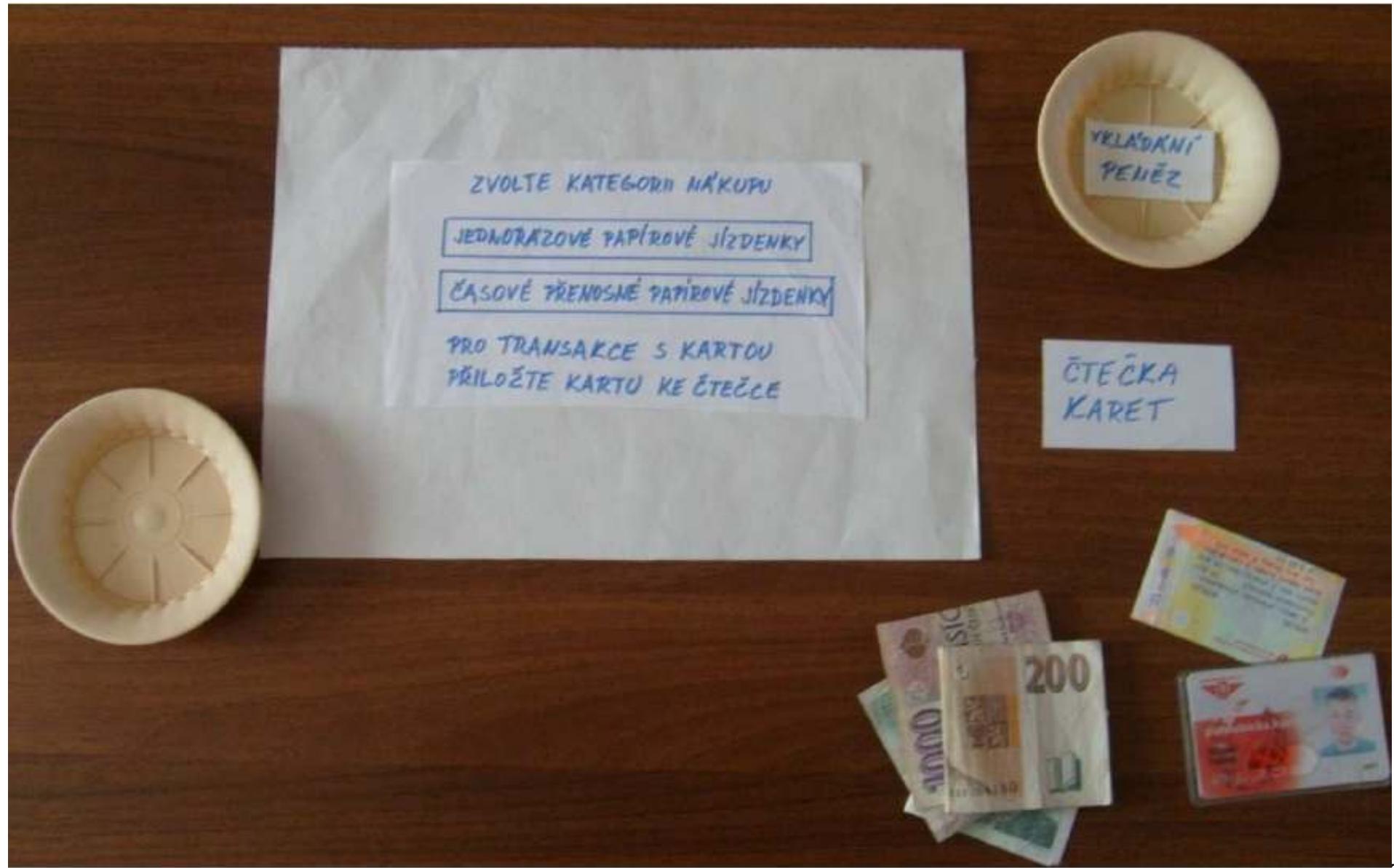
NUR - Prototyping (low fidelity)



Ticket kiosk: HTA



Ticket kiosk: prototype

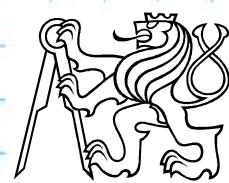
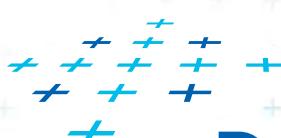
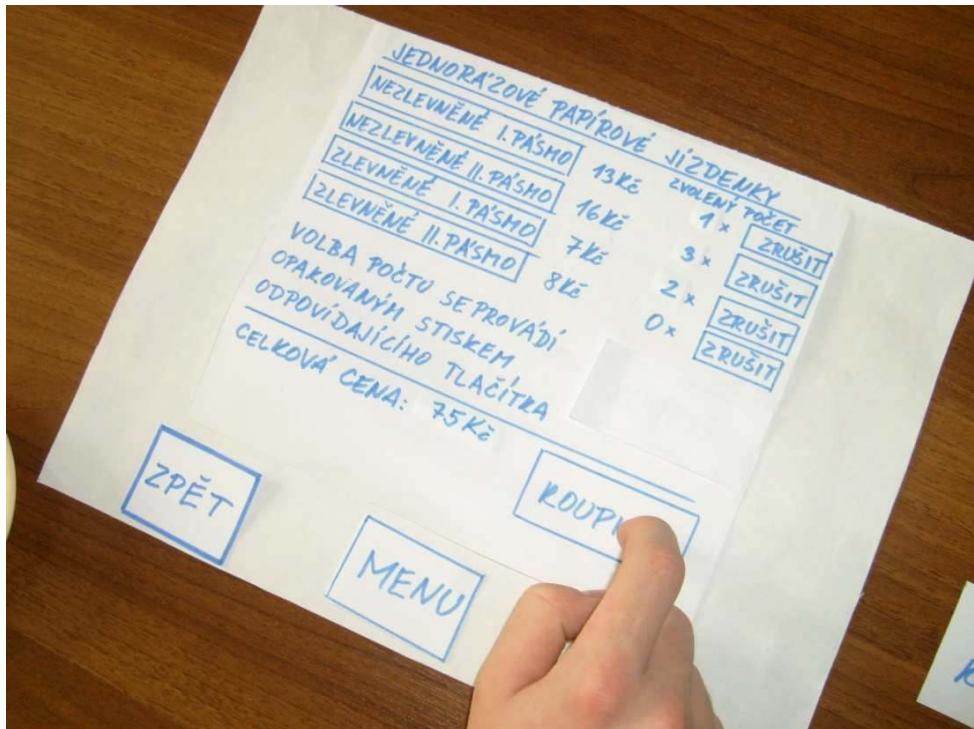


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NUR - Prototyping (low fidelity)



Ticket kiosk: prototype



Ticket kiosk: prototype test setup



NUR - Prototyping (low fidelity)

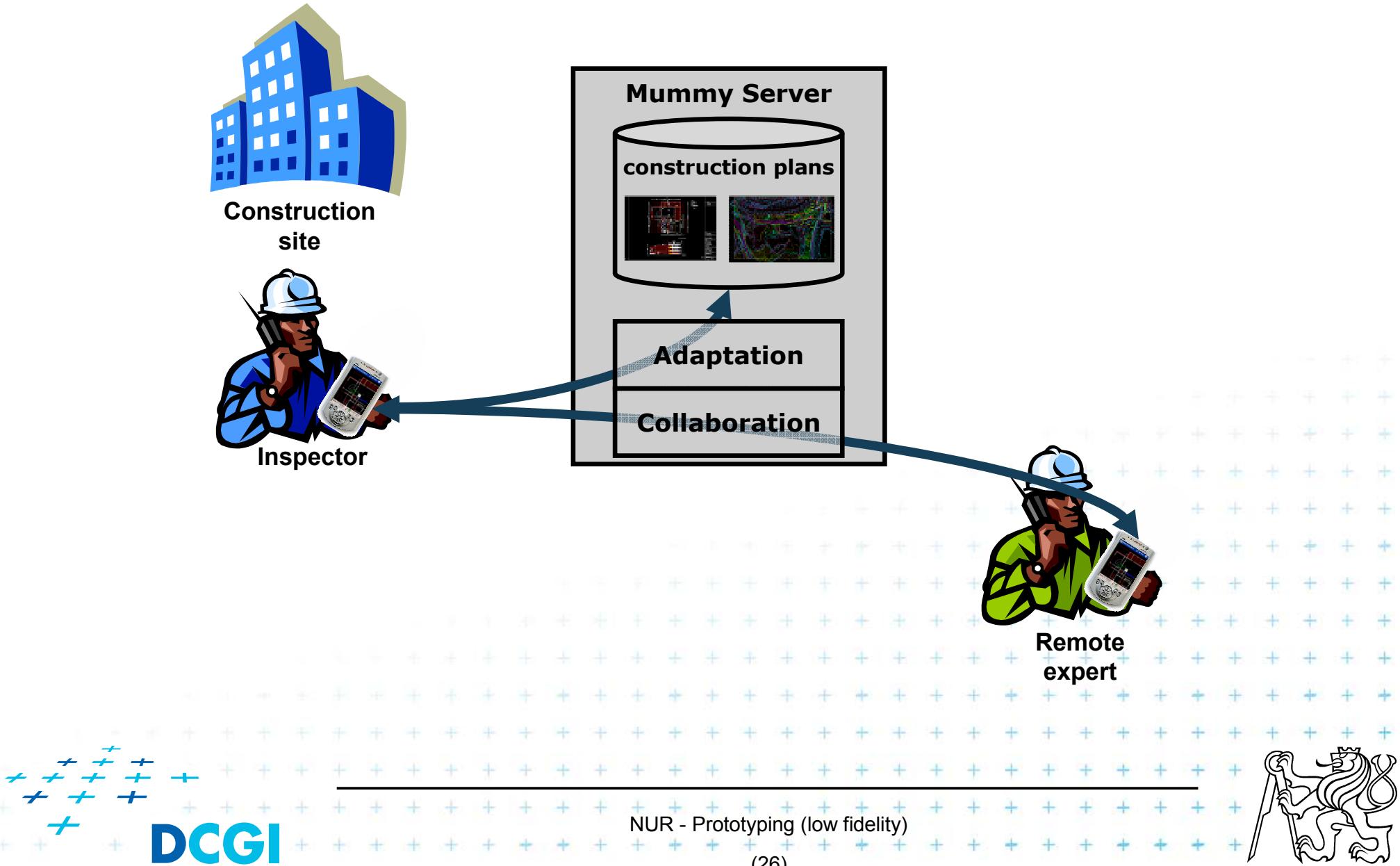
(25)



DCGI



Mummy – construction site inspection



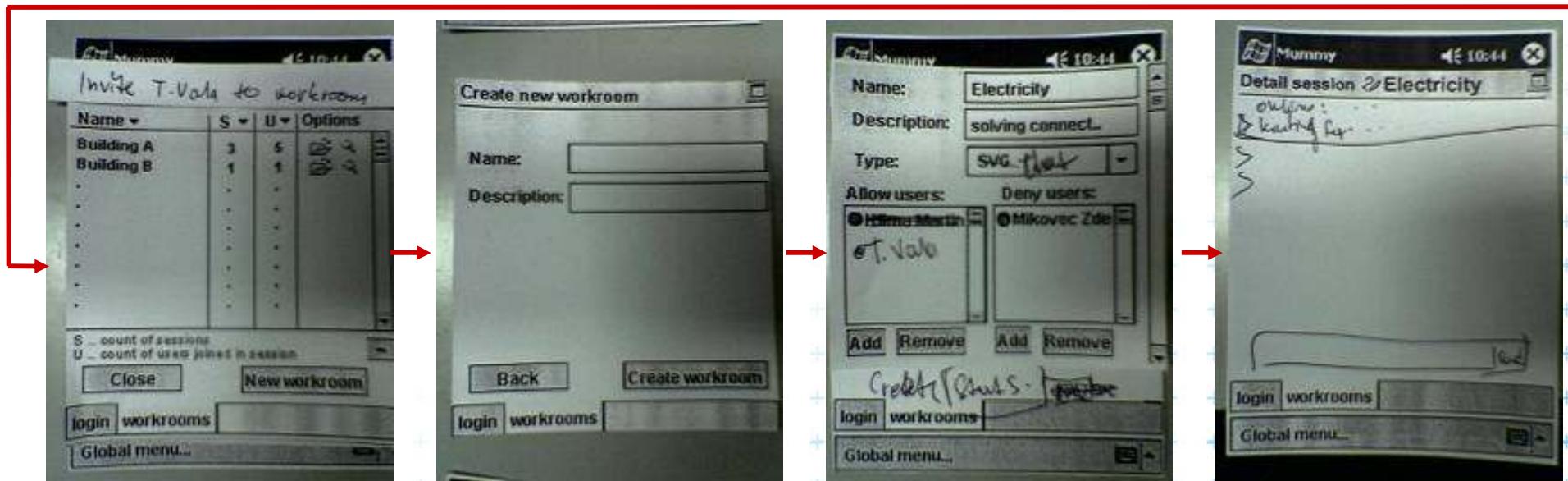
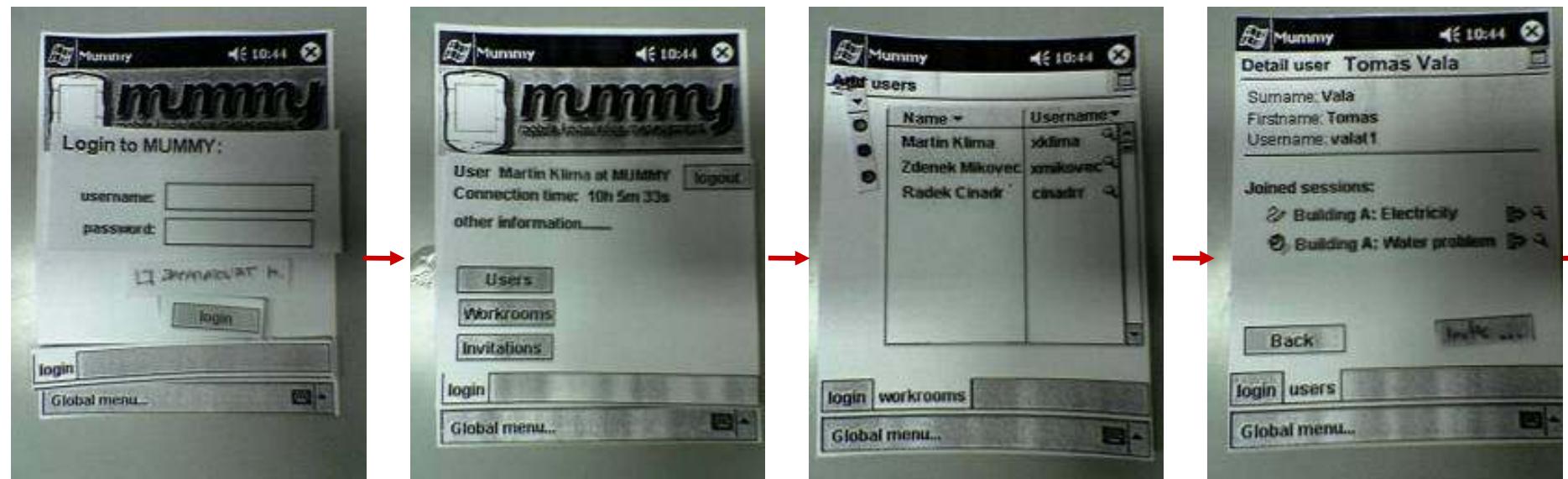
Mummy: construction site inspection



NUR - Prototyping (low fidelity)



Mummy: paper prototype

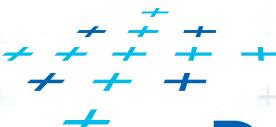
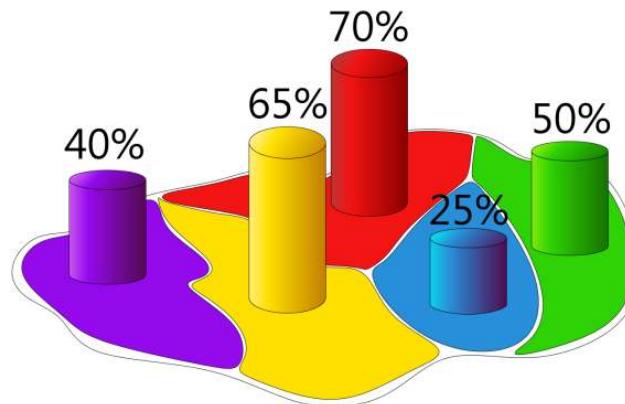
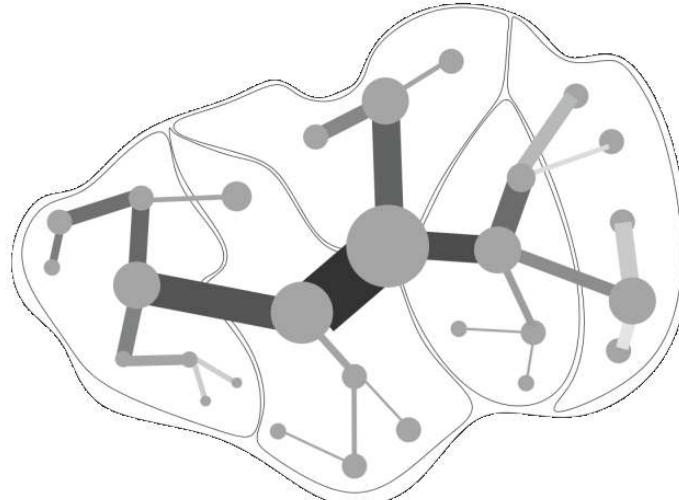


DCGI



Load visualization

- Visualization of the internet load in the city
- Goal: intuitive interaction and clear visualization of in time changing values
- Problems
 - control of animation
 - visualization



DCGI



Load visualization: prototype

ilustrační podklad

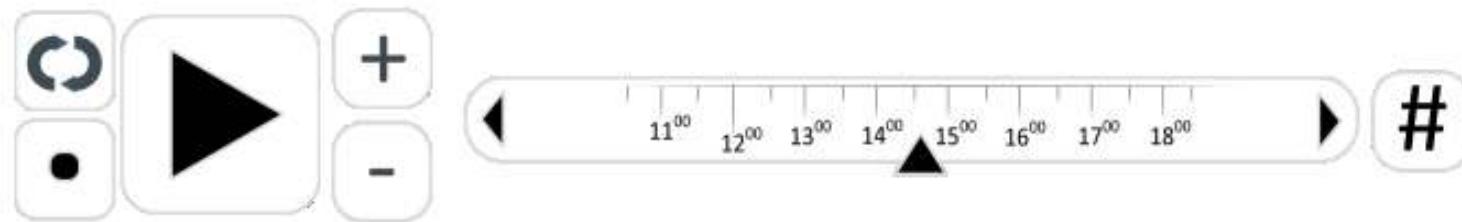
Široká 1

NUR - Prototyping (low fidelity)

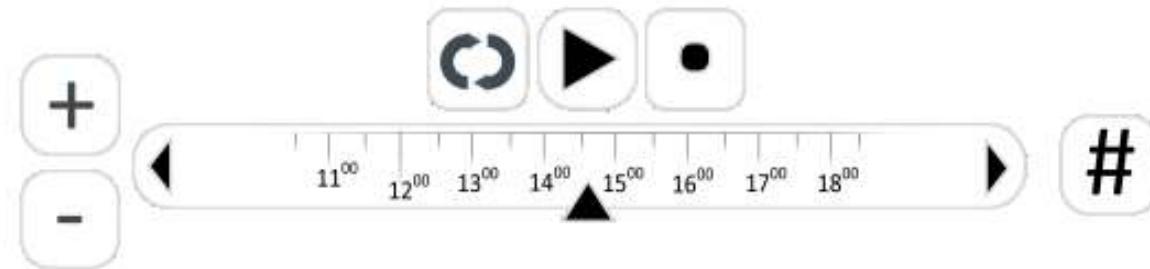
(30)

Load visualization: animation control

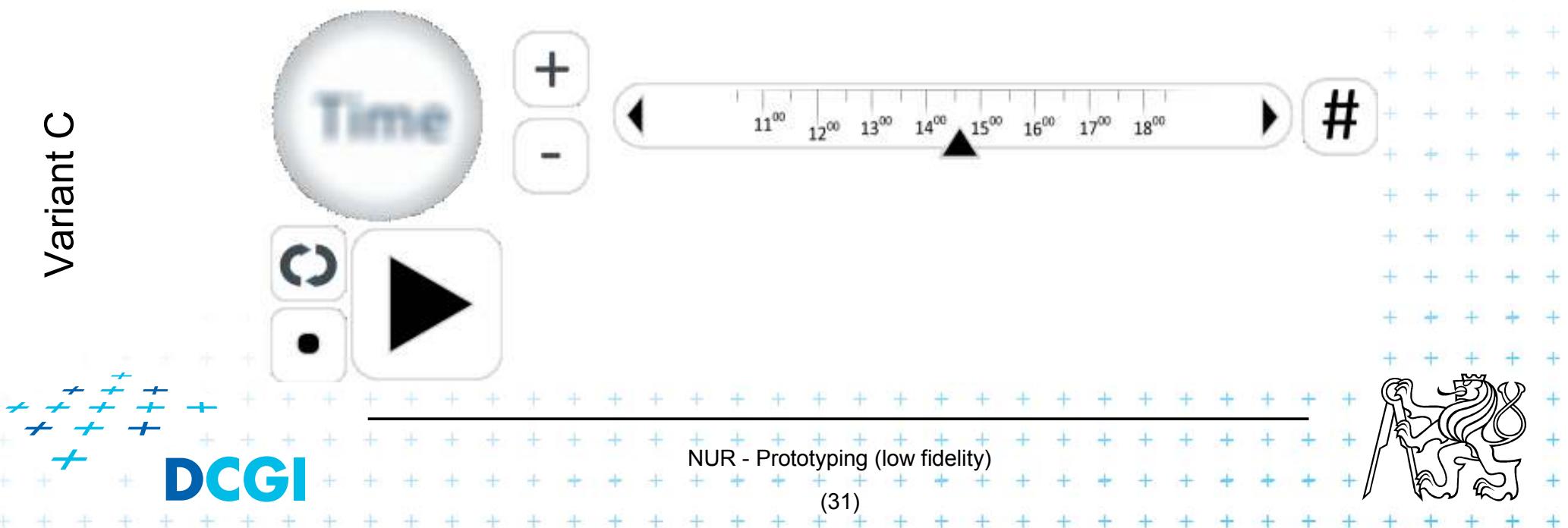
Variant A



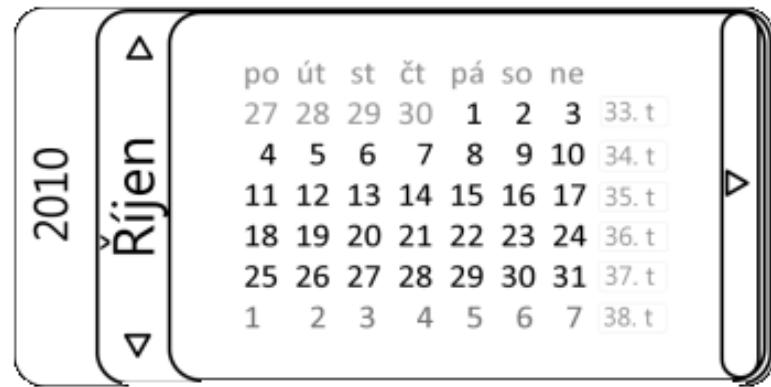
Variant B



Variant C



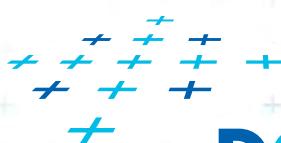
Load visualization: date picker



Variant A



Variant B

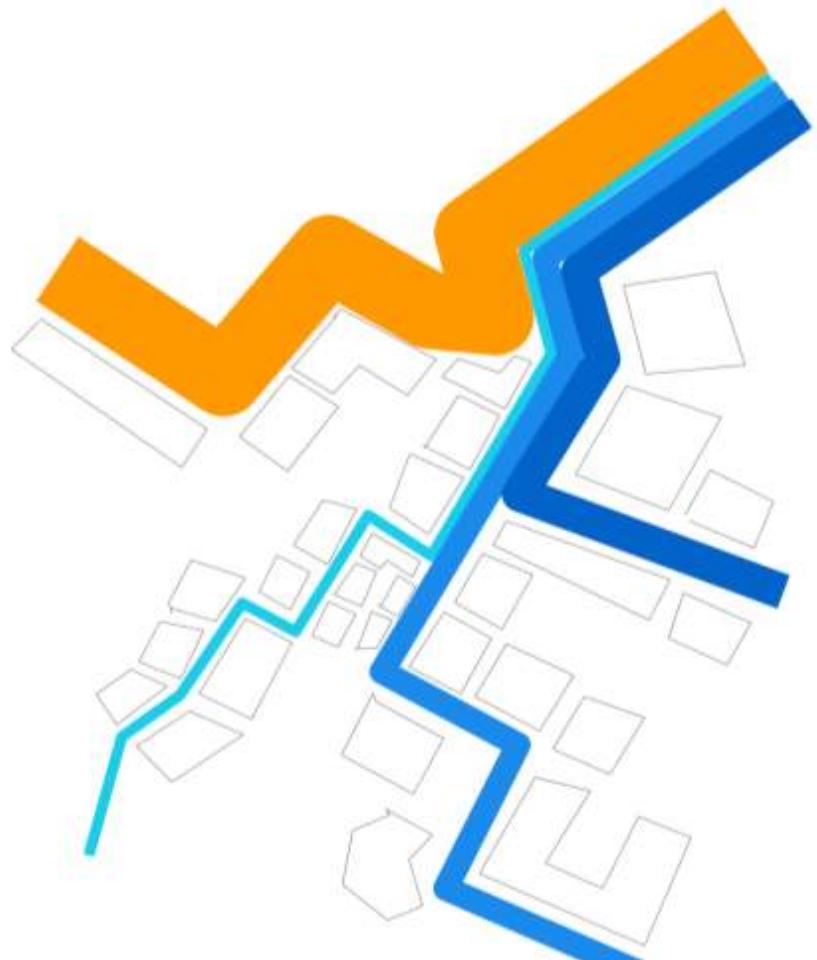


DCGI

NUR - Prototyping (low fidelity)

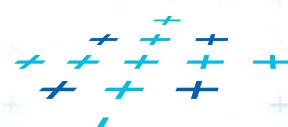
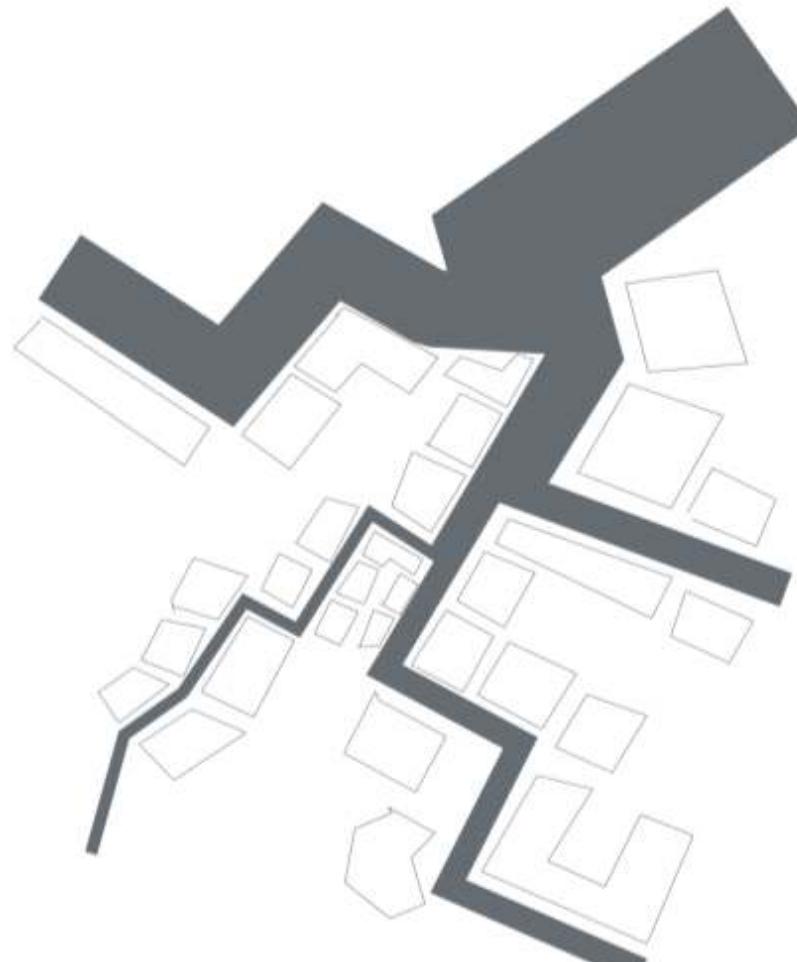


Load visualization: proportions



Use of color for lines distinction

Black&white visualization

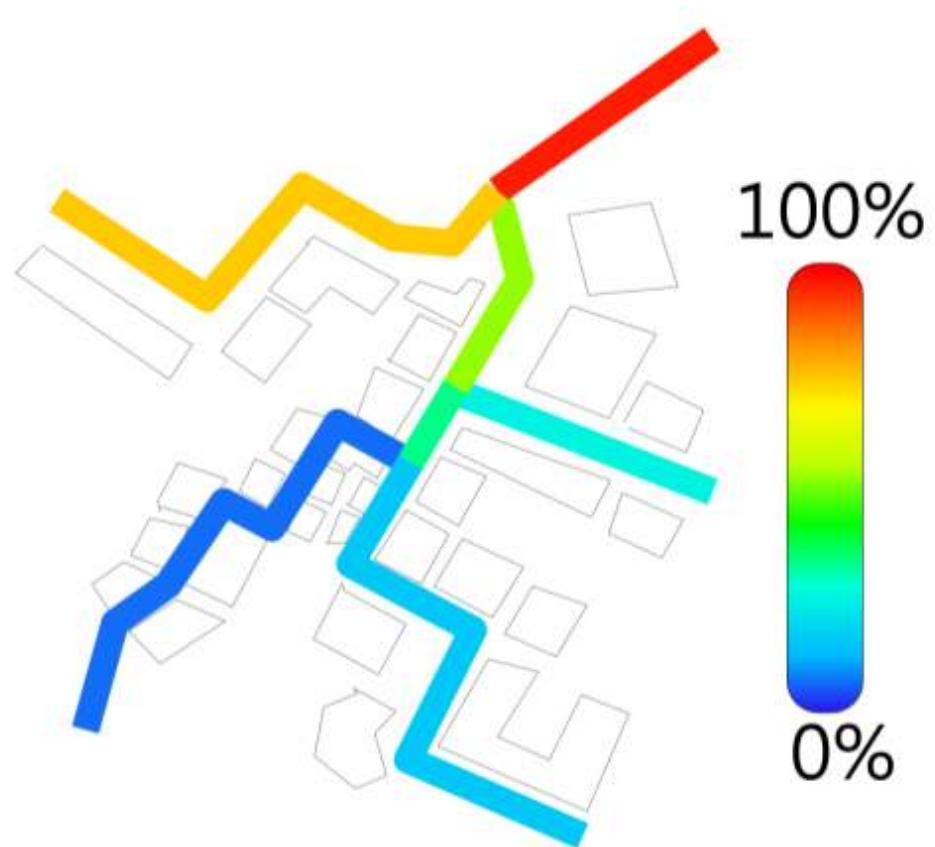


DCGI

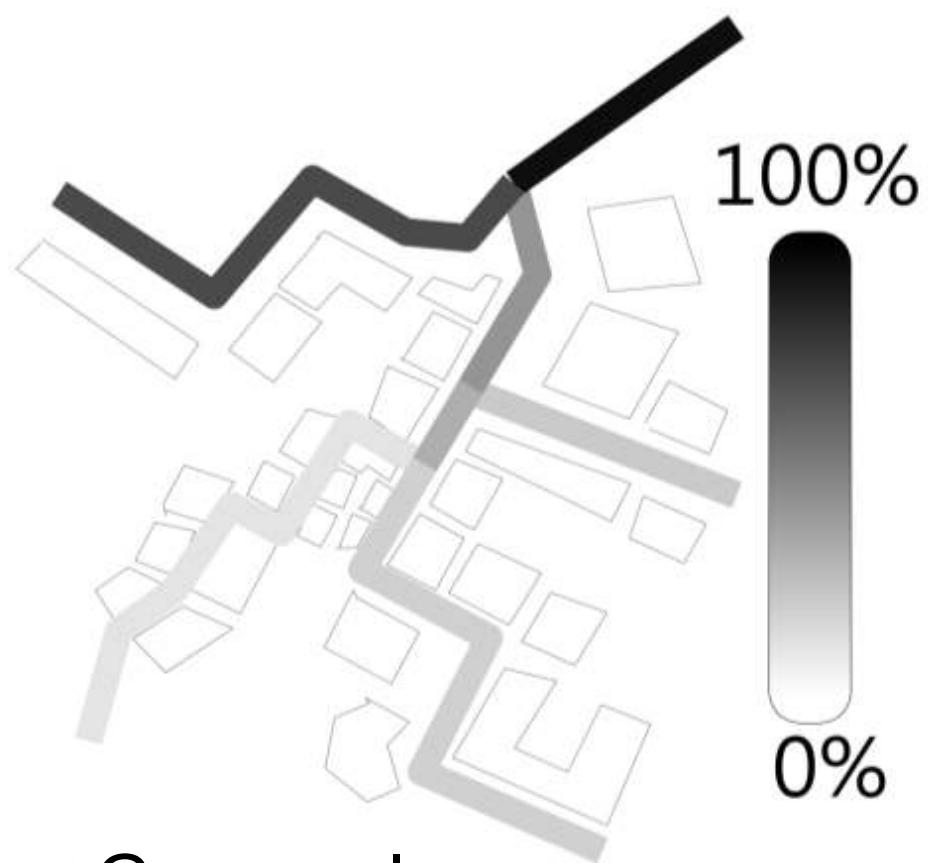
NUR - Prototyping (low fidelity)



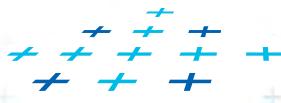
Load visualization: colors



Colors



Gray scale



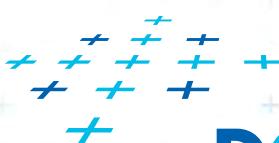
DCGI

NUR - Prototyping (low fidelity)



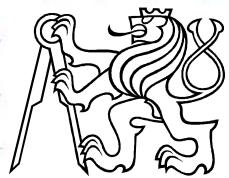
Traffic situation

- Visualization of the city traffic situation progress
- Goal: quick overview of traffic situation
- Problem: visualization of the progress in time

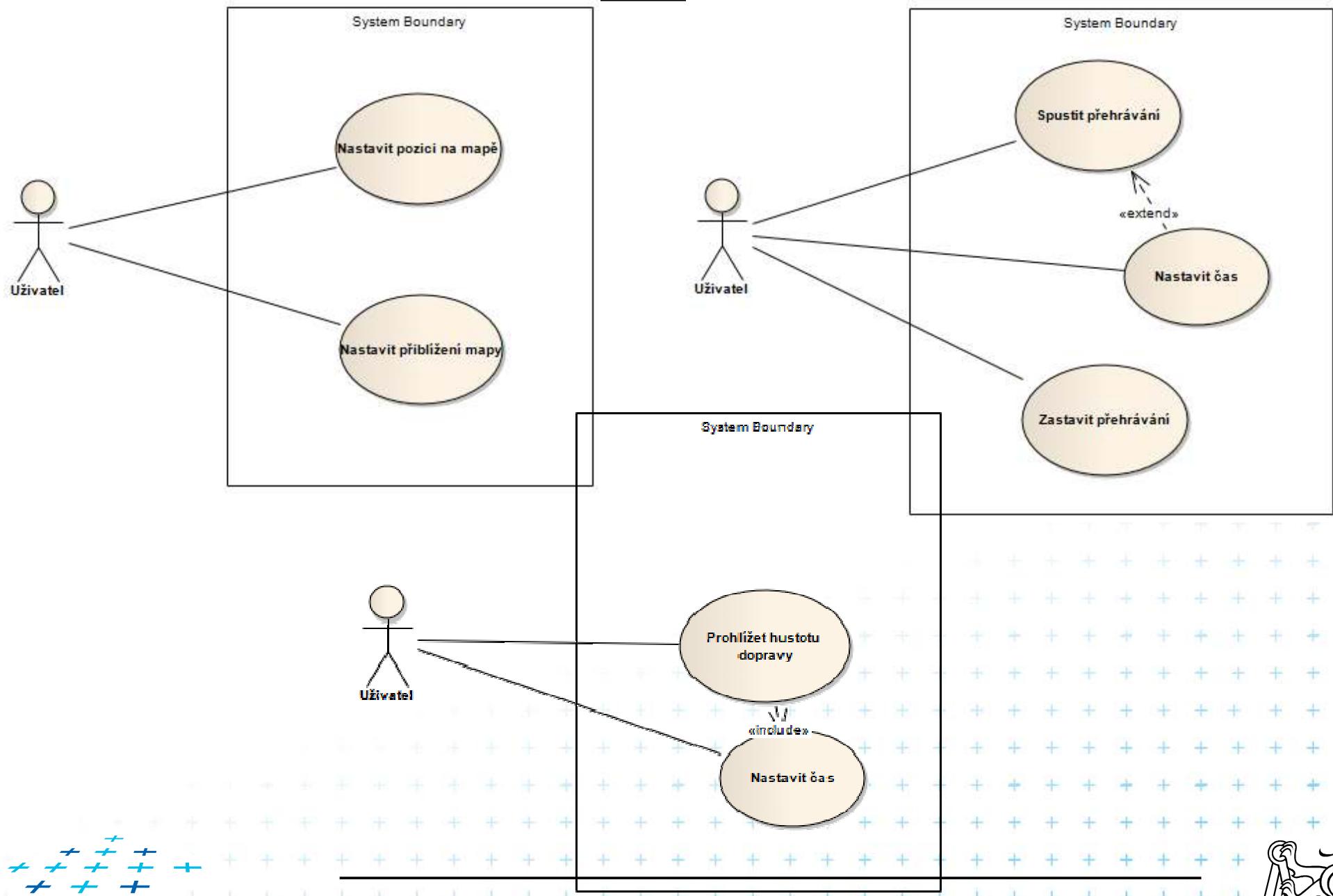


DCGI

NUR - Prototyping (low fidelity)



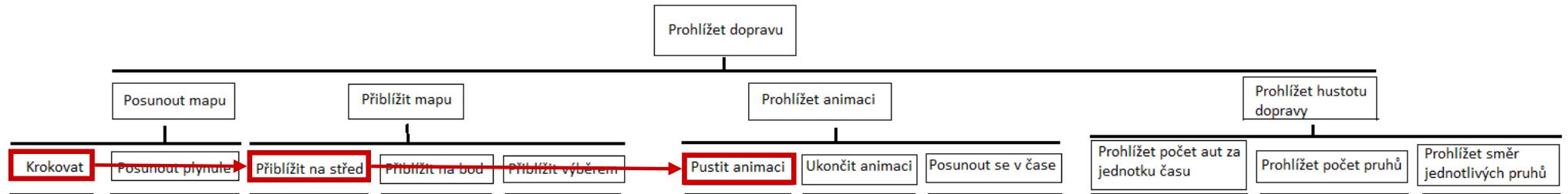
Traffic situation: use-cases



NUR - Prototyping (low fidelity)

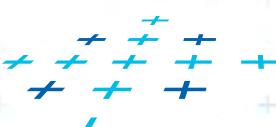


Traffic situation: HTA



■ Plan: Traffic situation overview

- stepwise view
- zoom to center
- run animation

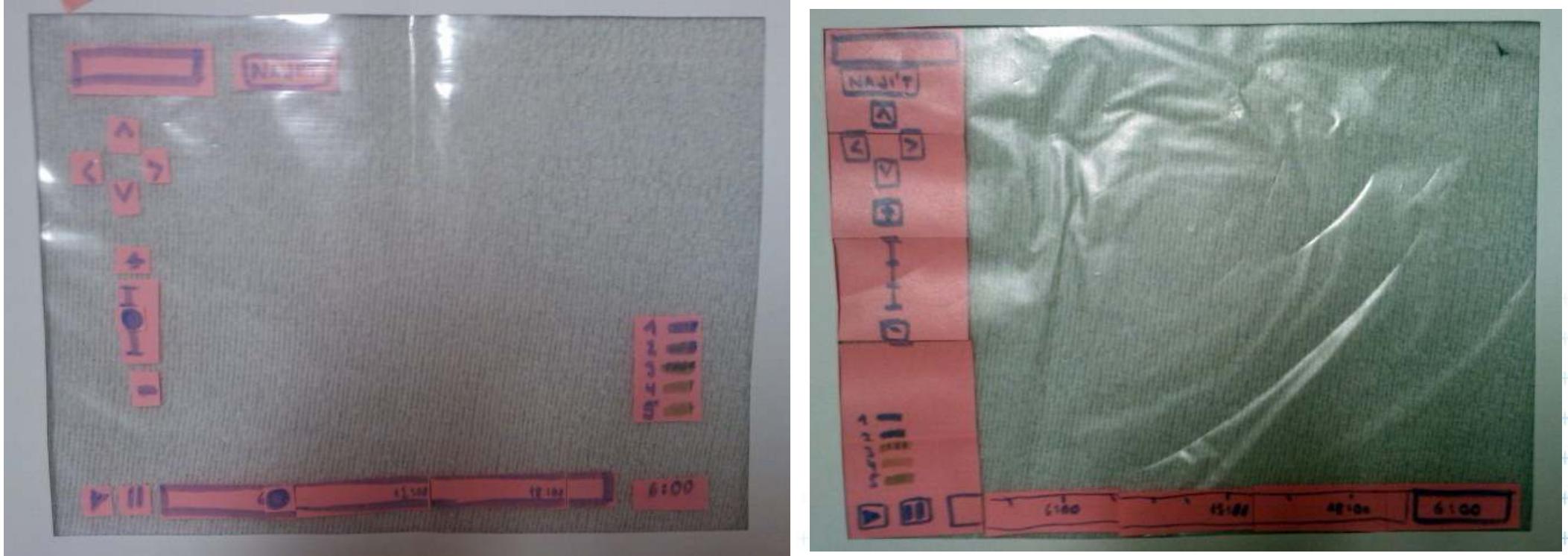


DCGI

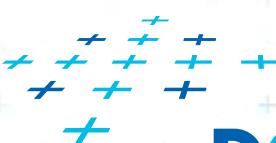
NUR - Prototyping (low fidelity)



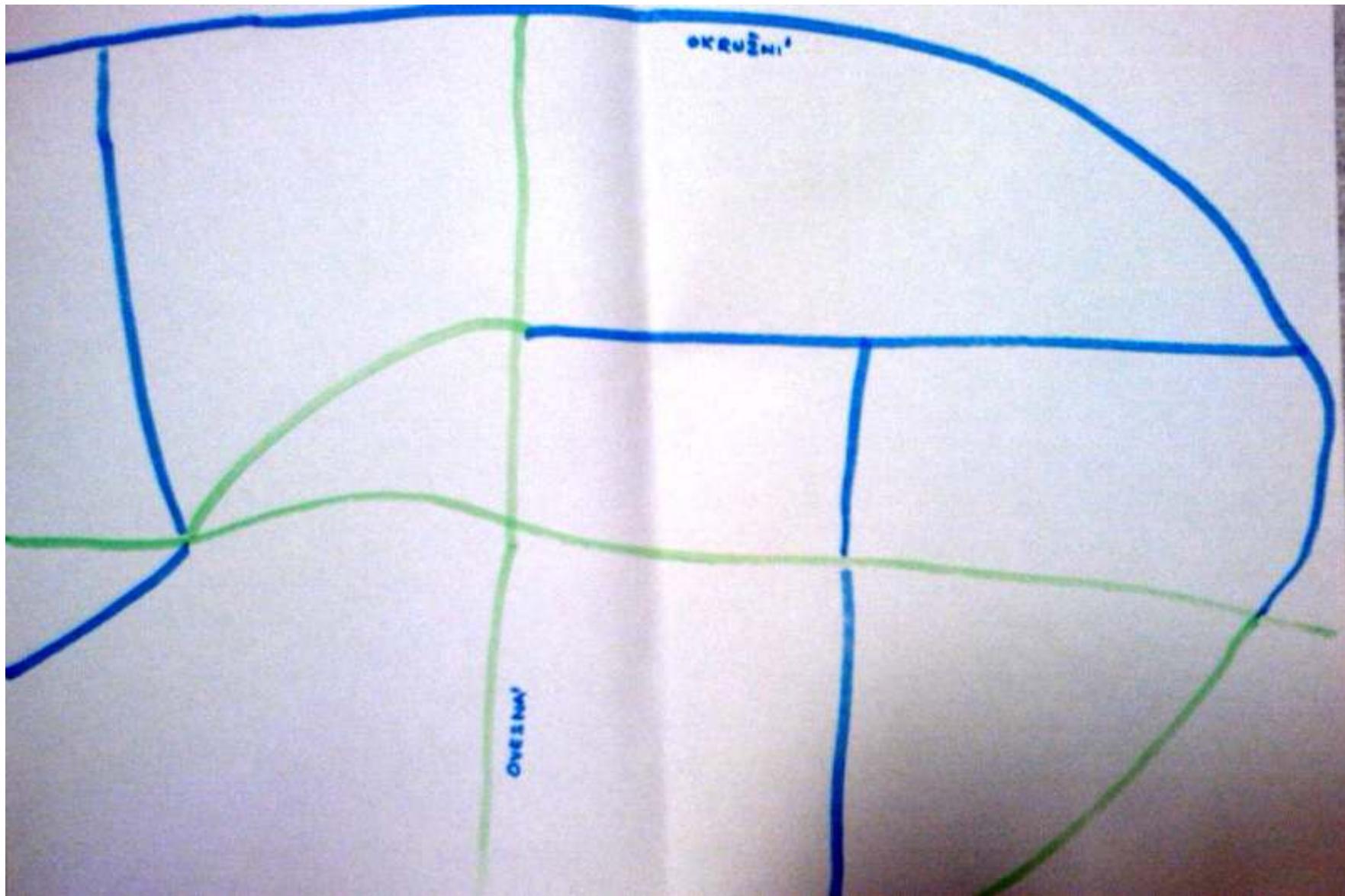
Traffic situation: UI control



NUR - Prototyping (low fidelity)



Traffic situation: map



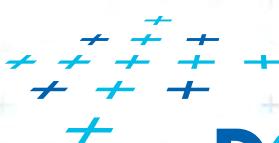
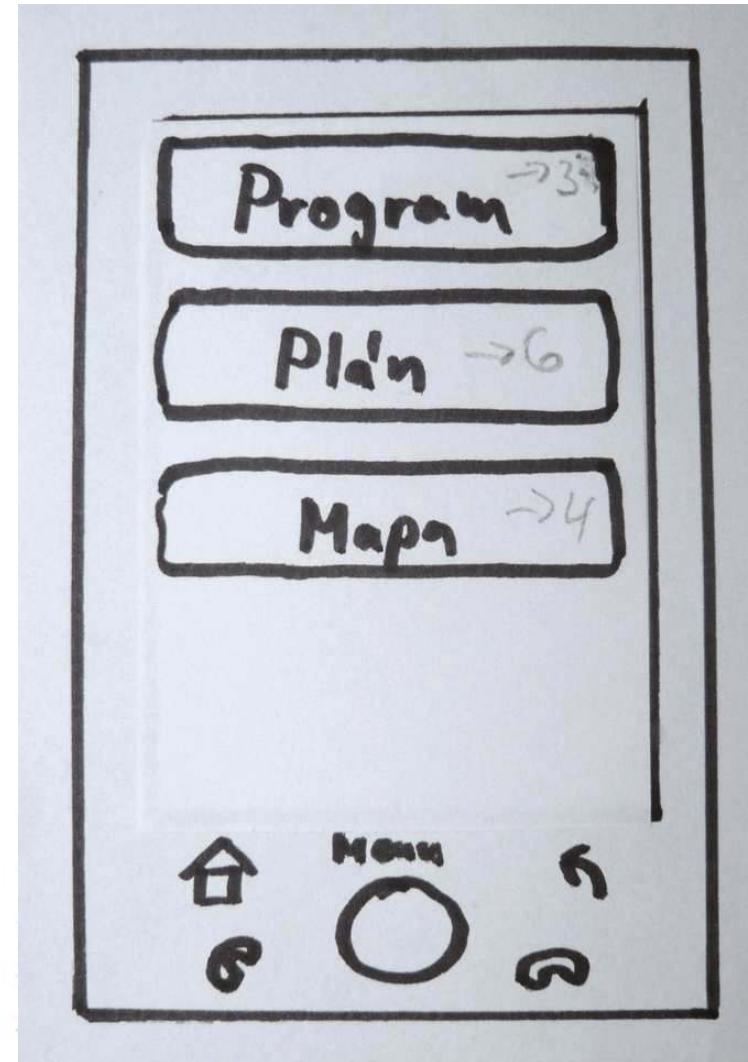
NUR - Prototyping (low fidelity)

(39)



Conference schedule

- Personal schedule of the conference attendee
- Cíl: quick and simple planning

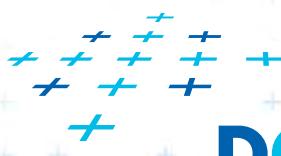
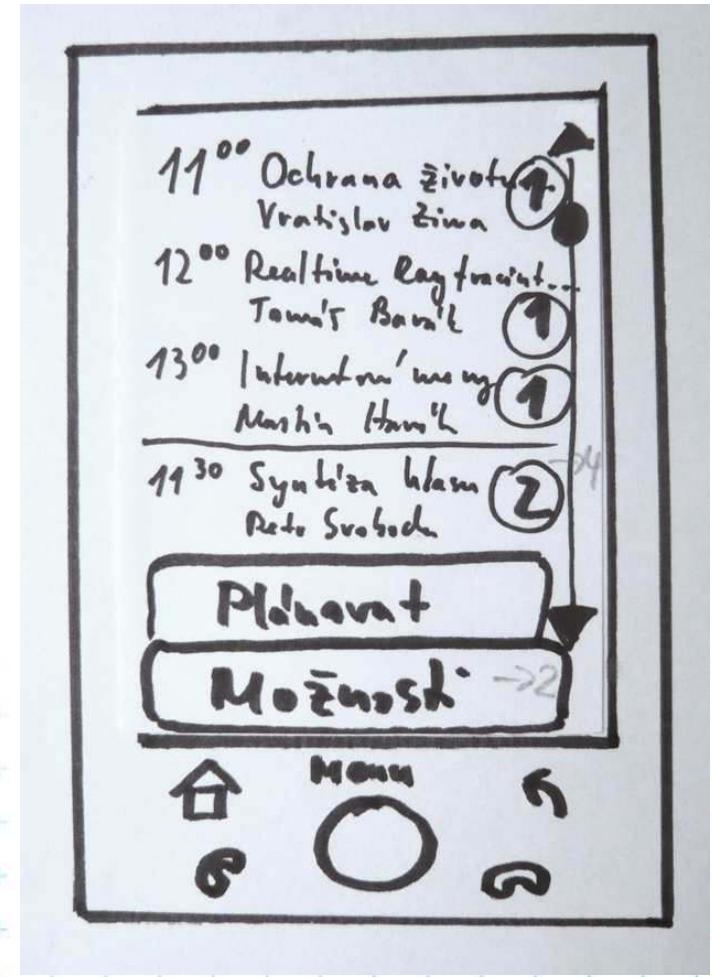
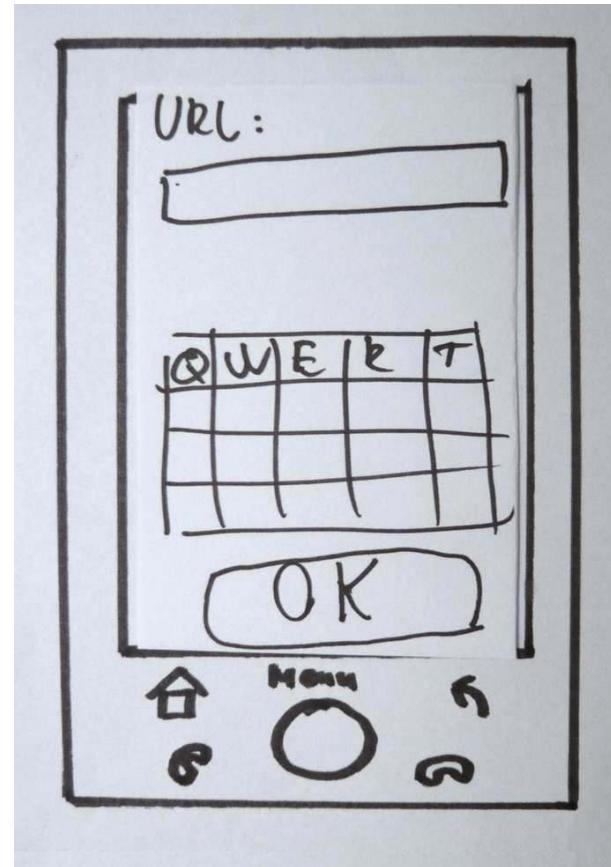
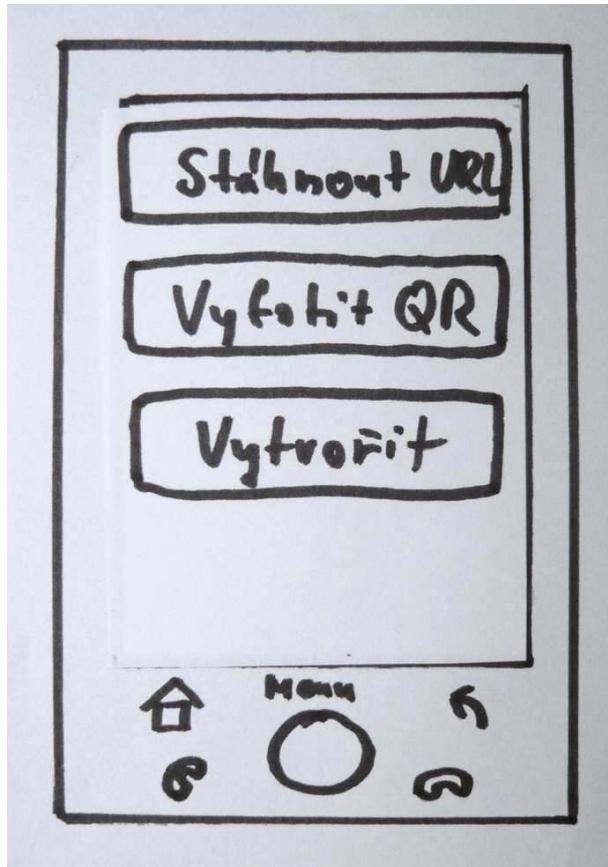


DCGI

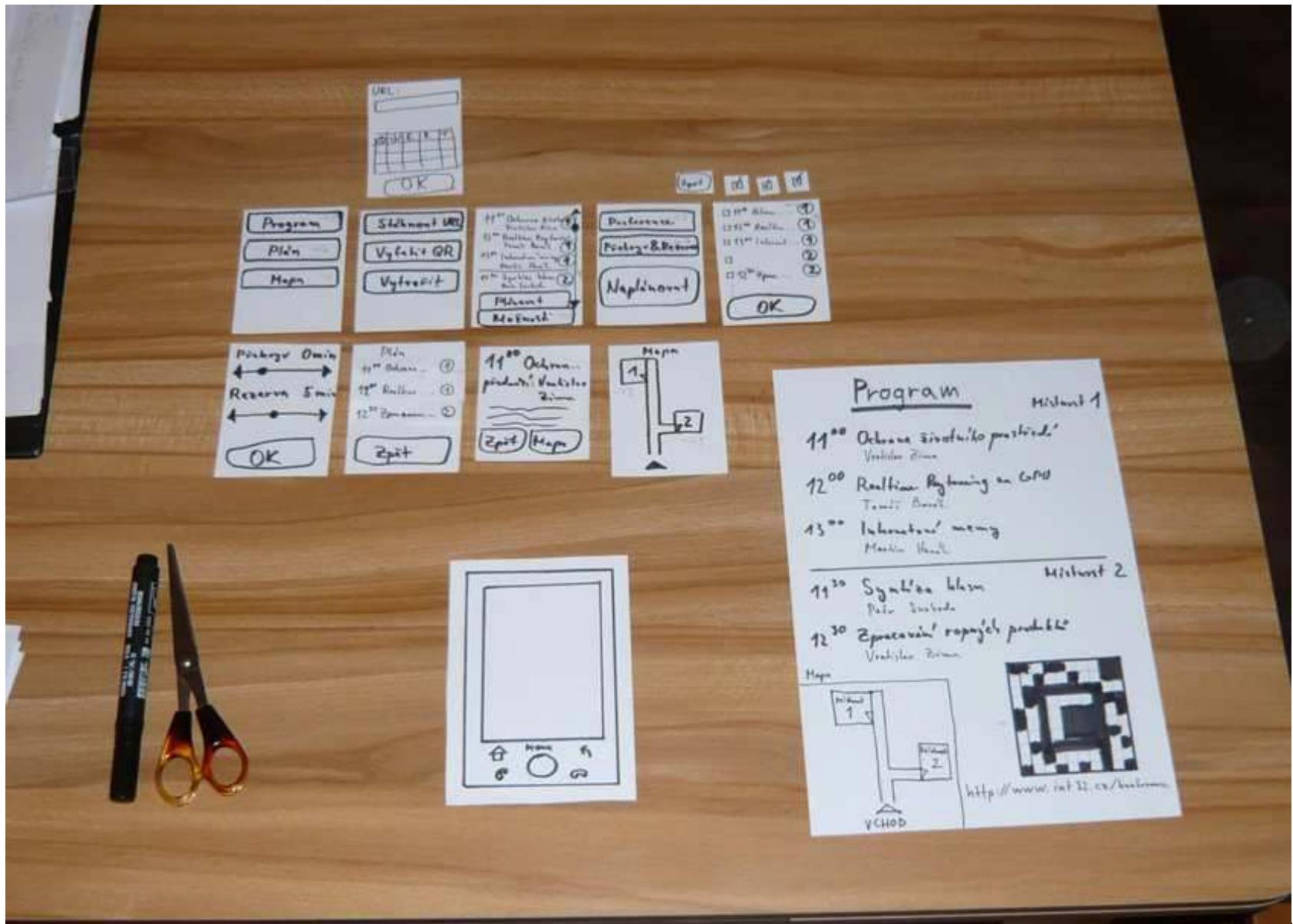
NUR - Prototyping (low fidelity)



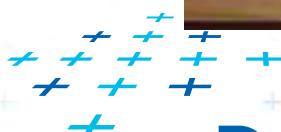
Conference schedule: prototype



Conference schedule: prototype creation

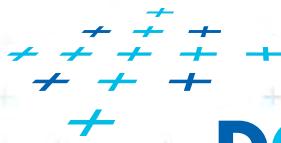


NUR - Prototyping (low fidelity)

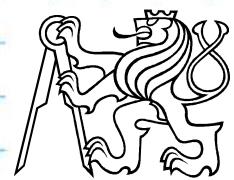


Electronic prototype

- HTML prototype
- PPT prototype
- PDF prototype

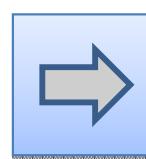


NUR - Prototyping (low fidelity)

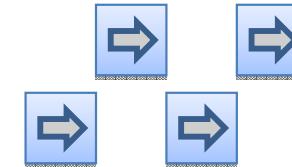


MS PowerPoint

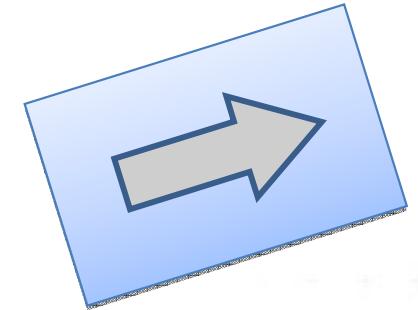
- Vector graphics



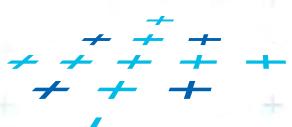
- Hyperlinks



- Embedded videos, images



- Animations



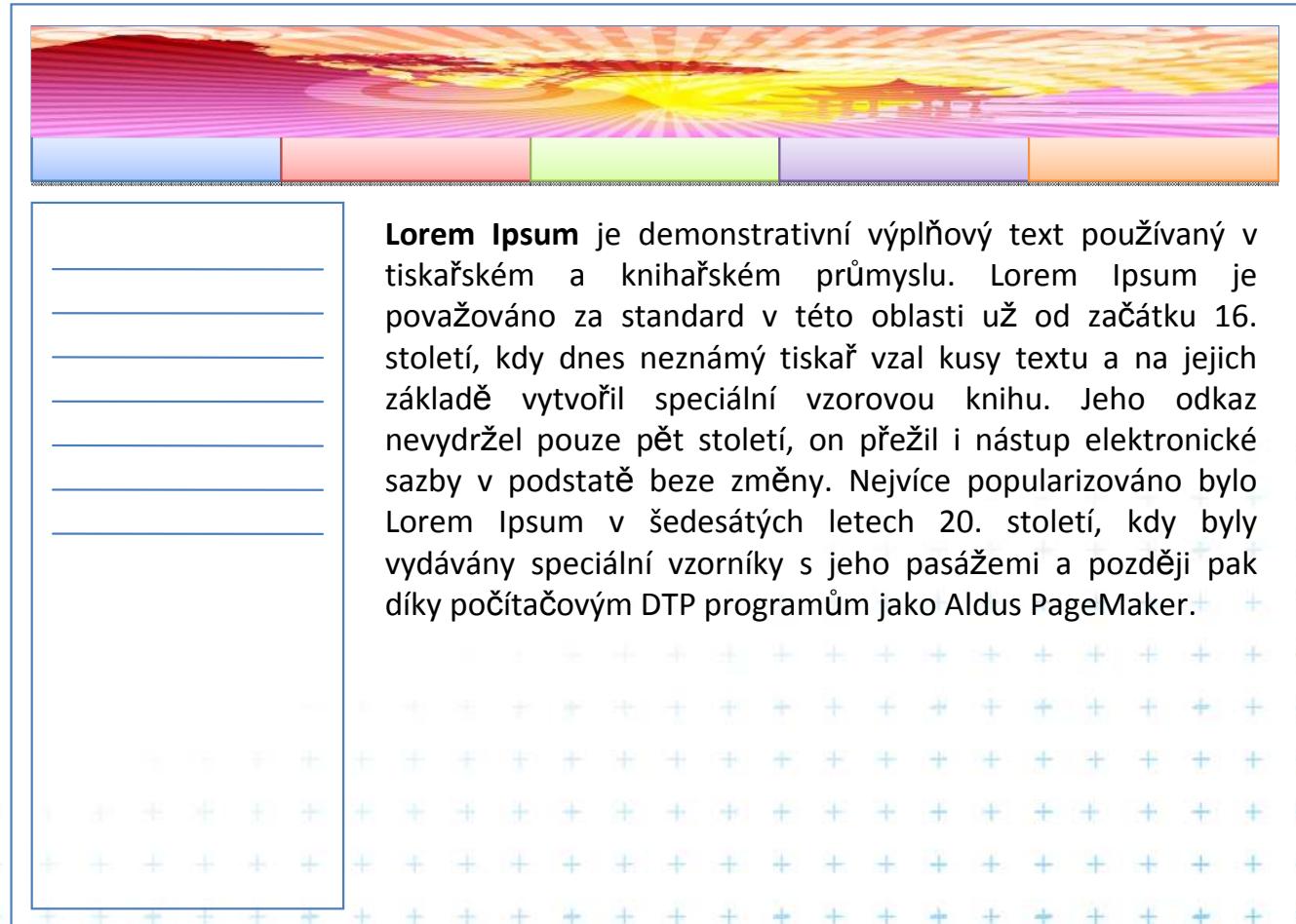
DCGI

NUR - Prototyping (low fidelity)

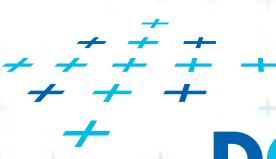


MS PowerPoint – vector graphics

- Shapes
- Styles
- Groups
- Z-axis



Lorem Ipsum je demonstrativní výplňový text používaný v tiskařském a knihařském průmyslu. Lorem Ipsum je považováno za standard v této oblasti už od začátku 16. století, kdy dnes neznámý tiskař vzal kusy textu a na jejich základě vytvořil speciální vzorovou knihu. Jeho odkaz nevydržel pouze pět století, on přežil i nástup elektronické sazby v podstatě beze změny. Nejvíce popularizováno bylo Lorem Ipsum v šedesátých letech 20. století, kdy byly vydávány speciální vzorníky s jeho pasážemi a později pak díky počítačovým DTP programům jako Aldus PageMaker.

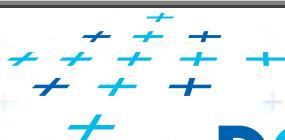
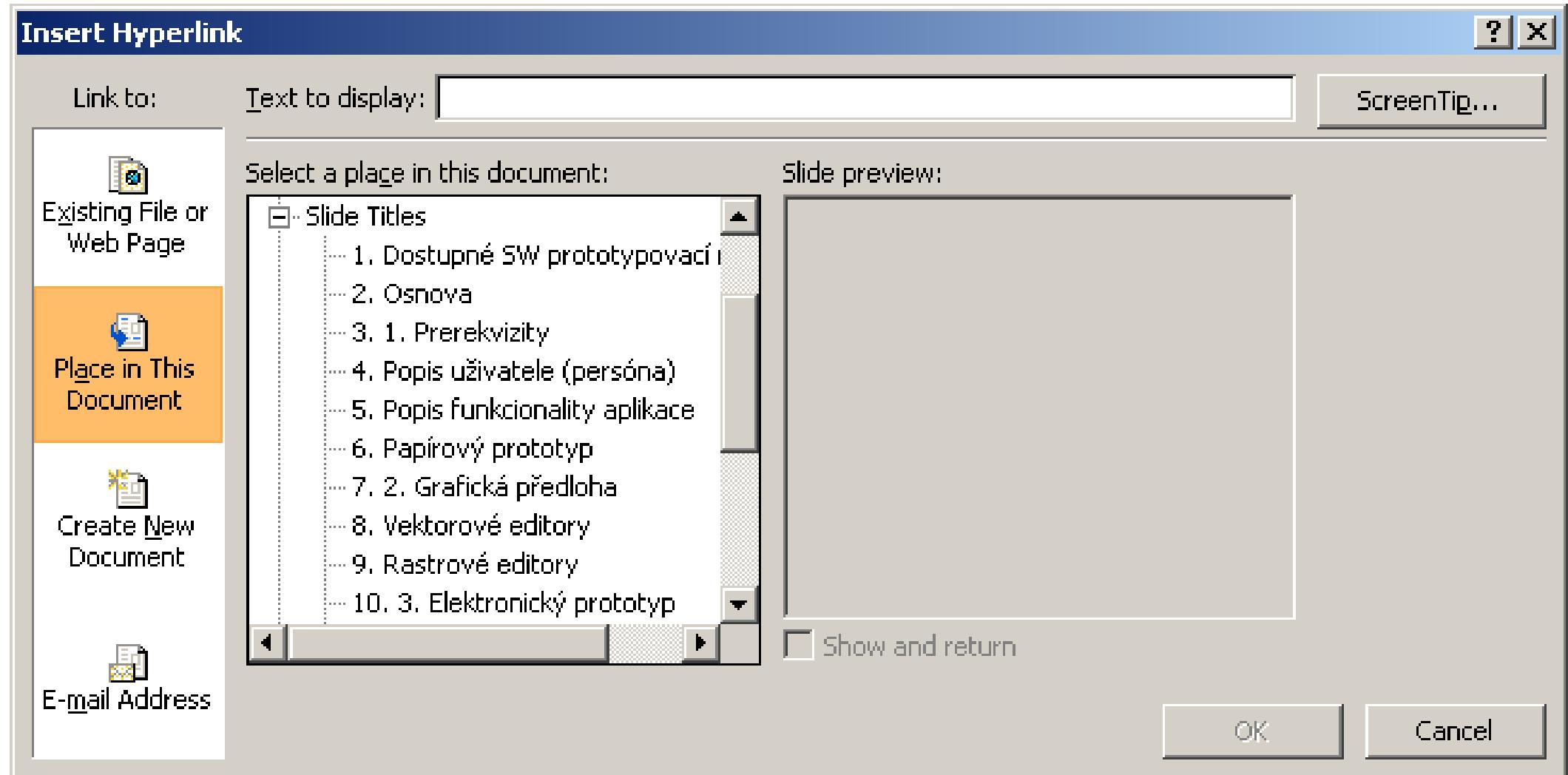


DCGI

NUR - Prototyping (low fidelity)

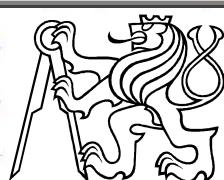


MS PowerPoint - hyperlinks

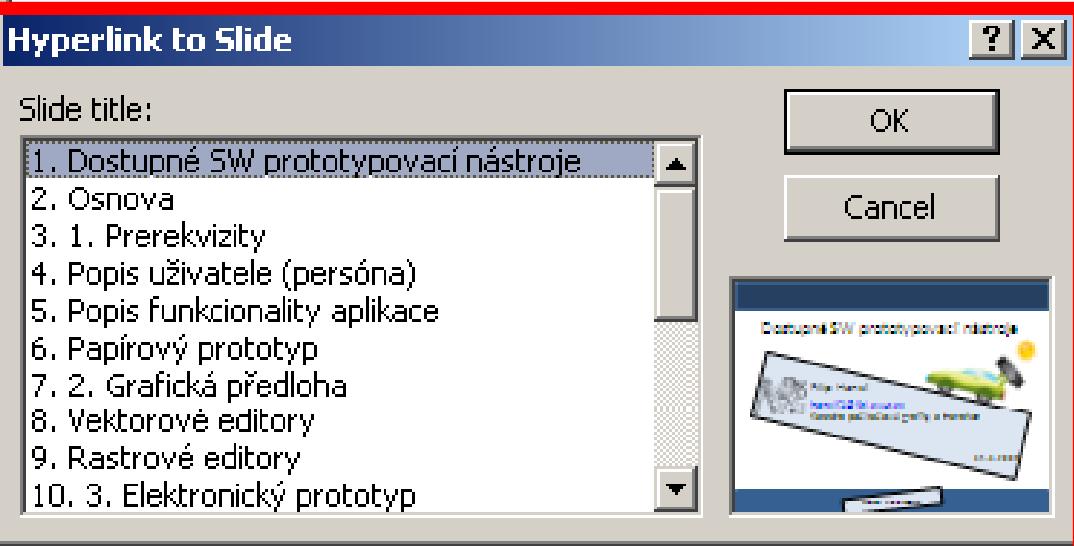
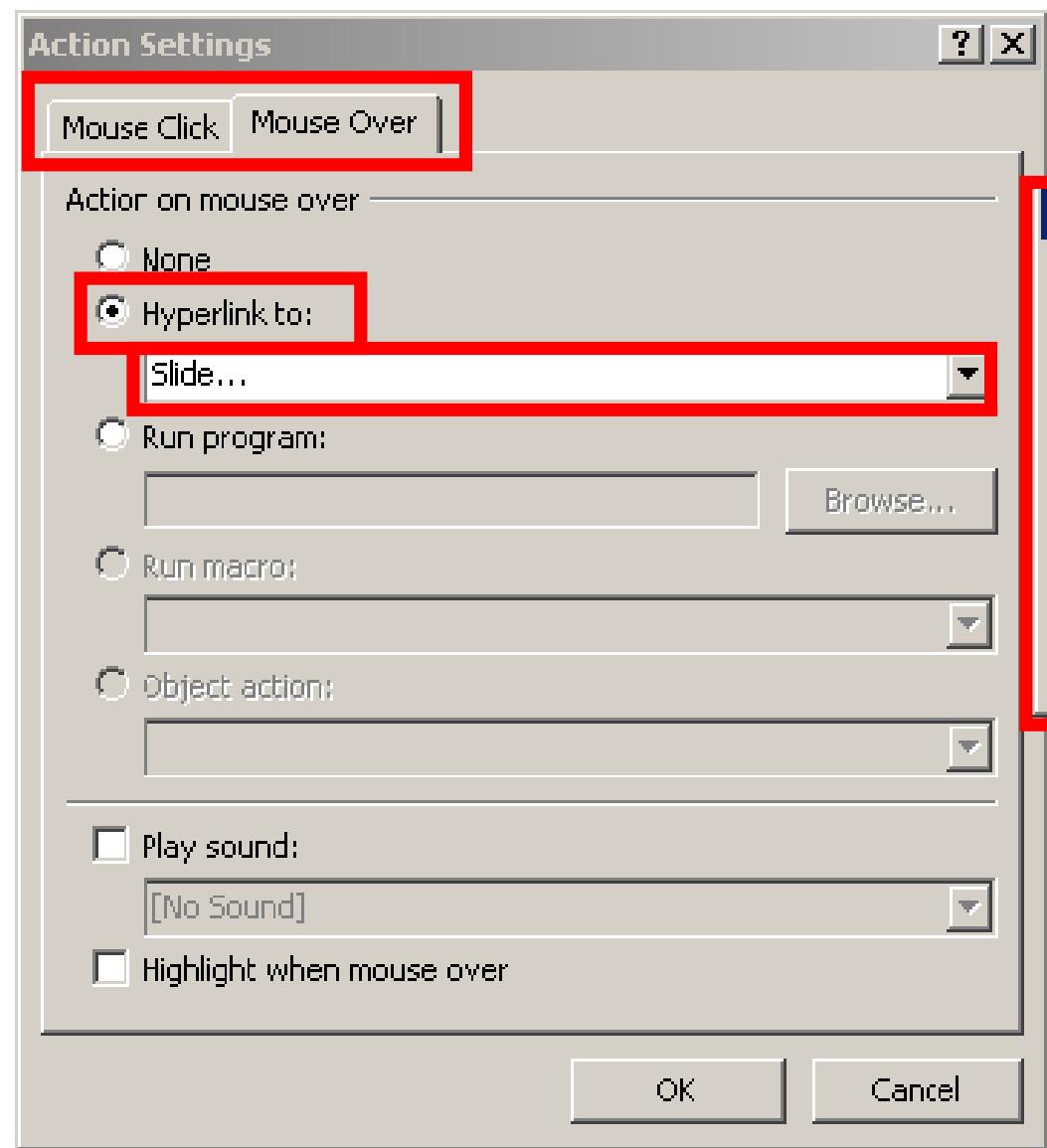


DCGI

NUR - Prototyping (low fidelity)

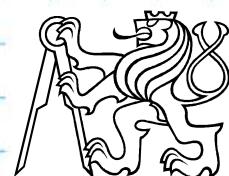


MS PowerPoint - Action



DCGI

NUR - Prototyping (low fidelity)



Text insertion

Vyplnit

OK **Zrušit**



Vkládání textu

Martin Martinovský

J. A. Komenského 321

Martin

Slovensko

Vyplnit

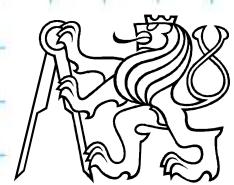
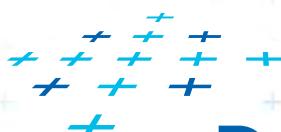
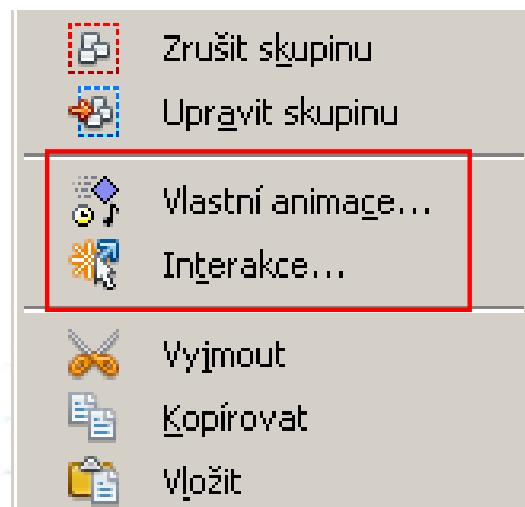
OK

Zrušit



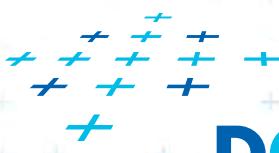
OpenOffice

- Similar to MS Office
- Object animation in context menu



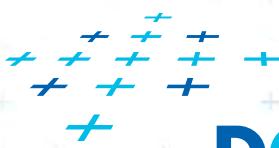
Web - Simple web page

- Screenshots
- Active parts – hyperlinks
 - click map
 - table
 - div
- Shortcut keys



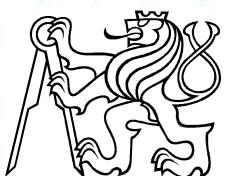
Web vs. presentation?

- Type of application
- Design speed
 - Experience, reuse, ...
- Interaction
 - mouse, keyboard,



NUR - Prototyping (low fidelity)

(52)



Electronic program guide

- Visual design - Gimp



- Photographs

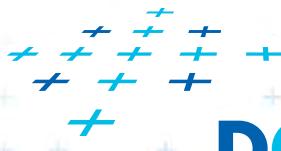
- Snapshot series + JavaScript



NUR - Prototyping (low fidelity)

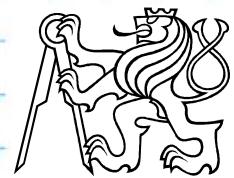
EPG - prototype showcase

- ... simple approach



NUR - Prototyping (low fidelity)

(54)



TELEVIZE

ČT 1

ČT 2

NOVA

PRIMA

ČT 24

ČT 4 SPORT



NÁVOD NA OVLÁDÁNÍ



Přesun nahoru



Přes celou obrazovku



Přesun dolů



Zpět do hlavní nabídky

TELEVIZE

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Zpět do hlavní nabídky



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Zpět do hlavní nabídky

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NÁVOD NA OVLÁDÁNÍ

- Přesun nahoru
- Přes celou obrazovku
- Přesun dolů



Zpět do hlavní nabídky

TELEVIZE

ČT 1

ČT 2

NOVA

PRIMA

ČT 24

ČT 4 SPORT



Zpět do hlavní nabídky

NÁVOD NA OVLÁDÁNÍ



Přesun nahoru



Přes celou obrazovku



Přesun dolů

EPG: PDF prototype (Balsamiq)

Vyhledání pořadů

Aktuální pořady

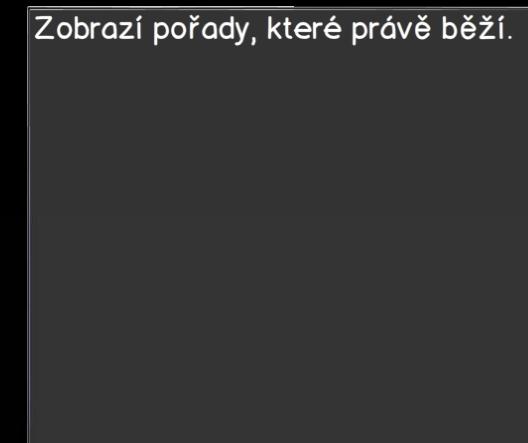
Označené pořady

Podle názvu pořadu

Podle času a kanálu

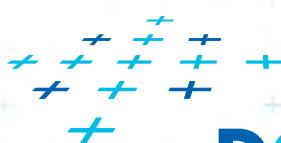
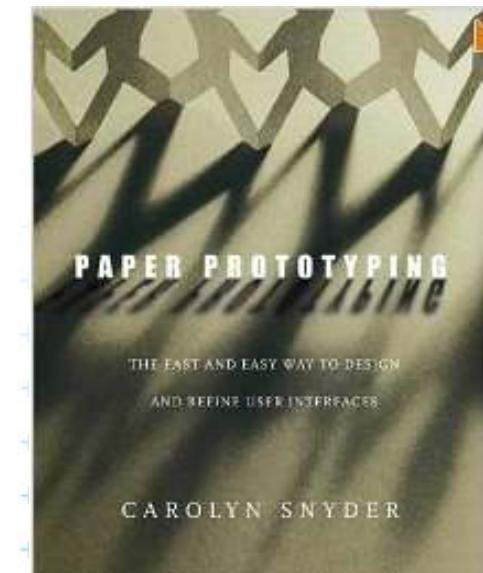
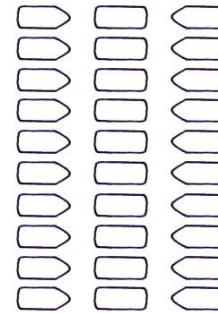
Rozšířené vyhledávání

Zobrazí pořady, které právě běží.



Paper prototyping

- <http://paperprototyping.com/>
- <http://balsamiq.com/>
- <http://gomockingbird.com/>



DCGI

NUR - Prototyping (low fidelity)



Thank for your attention



DCGI

