

UX @ FIIT STU

UX lab & UX class

Observation labs for supporting of (web) user experience and learning

Institute of Informatics and Software Engineering

Slovak University of Technology in Bratislava, Slovakia

Motto

We find important to
**not only listen to what users did, but
observe what they actually do.**

User experience laboratory

- University science park of Slovak University of Technology in Bratislava
- **Comprehensive observation of users working with technology**
 - PC, smartphones, tables
 - Web pages, web applications
 - Watching multimedia, movies
- Focus on dynamic web applications
- Various domains – e.g. support of learning
 - Integration of UX with learning systems

všetky reťazce dĺžky N , ktoré majú najviac L bitov 1 .

otvor / zatvor

Vašou úlohou je načítať číslo i zo vstupu a vypísať i -ty prvok usporiadanej množiny, v ktorej sú N -bitové reťazce, ktoré majú najviac L bitov zápisu 1 . Na štandardnom vstupe môžu byť viaceré trojice čísel N , L a i , pre každú z nich vypíšete postupne na štandardný výstup jeden riadok reprezentujúci i -ty prvok usporiadanej množiny popísanej vyššie

Obmedzenia:

$$1 \leq N \leq 31,$$

$$1 \leq L \leq N,$$

$$1 \leq i \leq |S|$$

Ukážka vstupu:

```
5 3 19
31 31 2147483648
```

uloha-3-3.java

Štandardný vstup

Štandardný výstup

```
1 // uloha-3-3.java -- Tyzden 3 - Uloha 3
2 // Jozef Ivarozek, 4.9.2014 13:27:41
3
4 import java.io.*;
5
6 class Uloha_3_3
7 {
8     public static void main(String[] args) throws IOException {
9
10        // sem napis svoje riesenie
11
12    }
13
14 }
```

Kompilácia ... OK

Vykonanie programu ... OK(70 ms)

Kompilovať

Spustiť

Spustiť (s krokovaním)

Stiahnuť uloha-3-3.java

i

Odoslať riešenie

Riešenia podľa času (19)


1. Roland Lang	130 ms
2. Daniel Valocky	150 ms
3. Lukas Gubik	170 ms
4. Helmut Posch	190 ms
5. Richard Pastorek	190 ms
6. Ondrej Vlcek	200 ms
7. Adam Kulisek	200 ms
8. Tomas Melicher	200 ms
9. Jozef Gonczol	200 ms
10. Juraj Kochjar	210 ms
11. Alexander Ferencik	210 ms
12. Kristian Balco	230 ms
13. Jaroslav Gazdik	230 ms
14. Jaroslav Erdelyi	230 ms
15. Marek Duransky	240 ms
16. Peter Sarissky	240 ms
17. Michal Fasanek	250 ms
18. Peter Rusnak	260 ms
19. Marek Sulek	410 ms

UX group @ FIIT STU


- Interest group for discussion and exchange of experiences about technologies for observing user experience
- **UX Lab** – detailed observation lab (of everything)
 - PC, smartphones, tablets, projectors
- **UX Class** – observation of students learning
 - 20 PCs with sensors

User eXperience @ FIIT STU


UX Lab




emotion detection




Intel RealSense




300 Hz
Tobii eye-tracking



Eye Tracking for Research and Analysis
Tobii X2 - Most Versatile Eye Tracking Systems
Large screens and projections



EEG



ECG, GSR, FSR, °C

UX Class



20x
RealSense



Enable an entire classroom with eye tracking



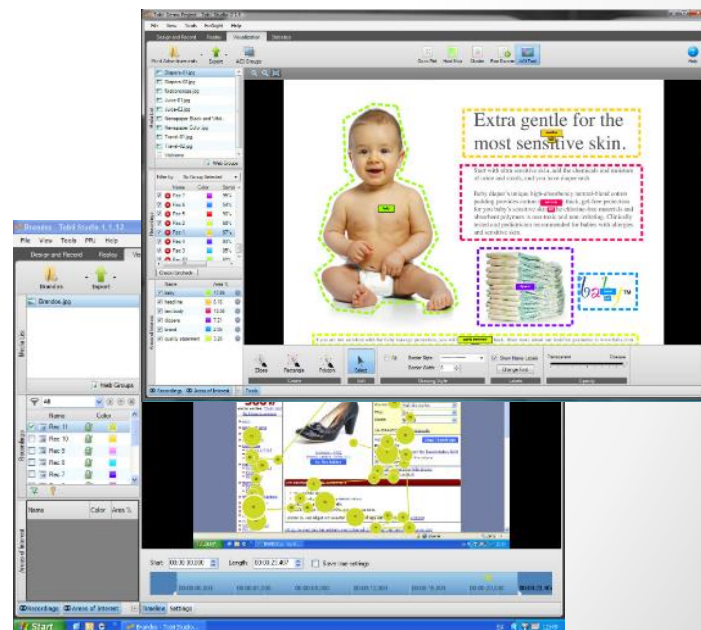
60 Hz
Tobii eye-tracking



emotion detection

UX Lab (1/2)

- Detailed observation of eye gaze 300Hz
 - Very high precision and sample rate, observing eye gaze on the level of reading individual letters
 - (first) fixation, duration of fixation, saccades, ...
- Observation of users in:
 - Software applications on PC, web
 - Mobile apps usage experience
 - Watching TV
 - Projector screens



UX Lab (2/2)

- Observing emotions on multiple levels:
 1. Sensors on the neuro-level (brain) (EEG)
 2. Sensors on the physiological level
ECG, GSR, FSR, °C
 3. Visually, using software
analysis of facial features
from HD and depth camera
streams



Happy,
Sad,
Angry,
Surprised,
Scared,
Disgusted



Intel RealSense

UX Class

- Computer class with technology of future
 - Support of learning using personalized web-based educational systems
- 20x PC with sensors (eye-gaze, cameras, ...)
 - Observing and adapting to the way how students work/use: keyboard, mouse, eye-gaze, emotions



20x



60 Hz
Tobii eye-tracking



Intel RealSense

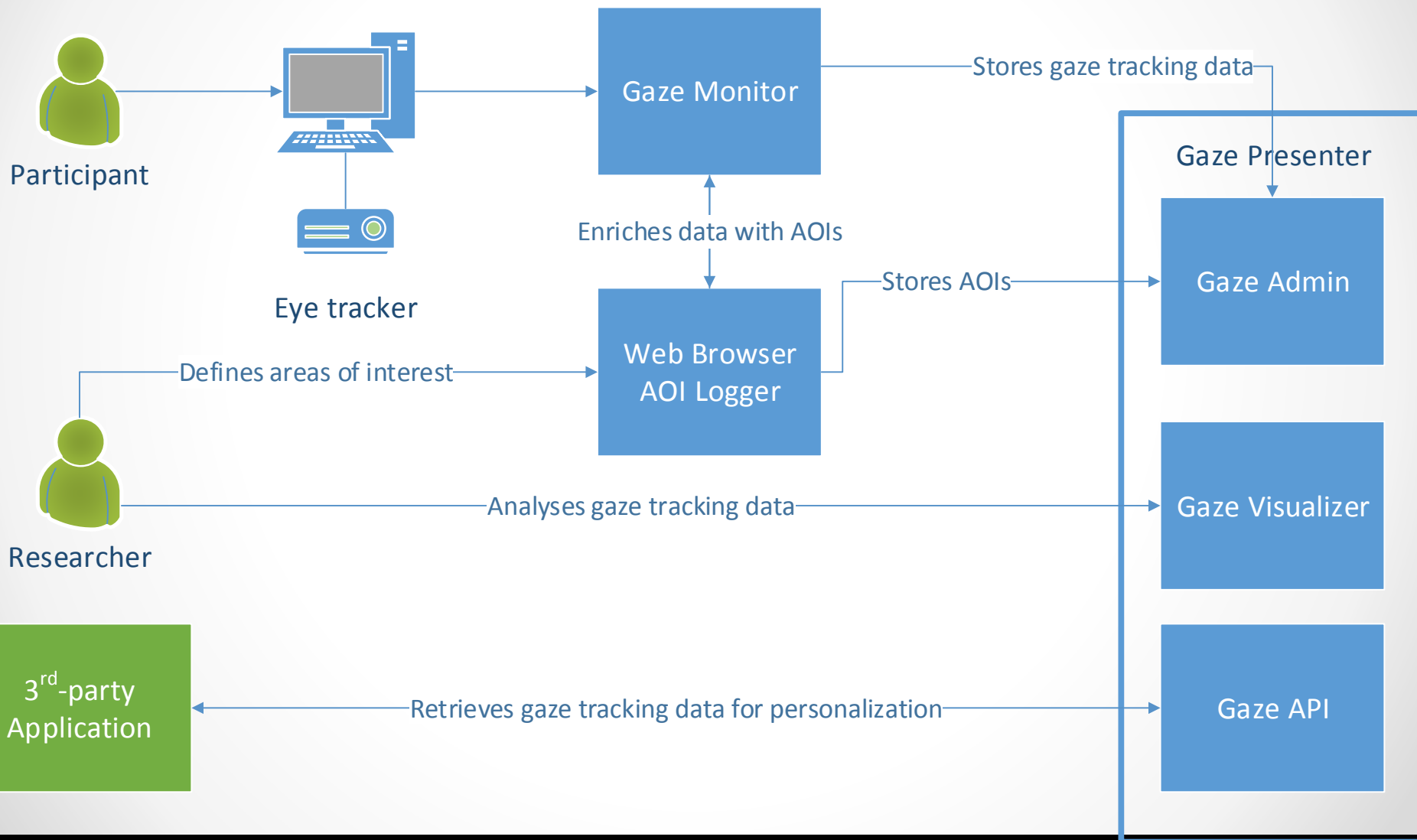


emotions detection



Software infrastructure

Observation in dynamic web applications



Specifying AOI (area-of-interest)

Google

datawiz2014



Web

Images

Maps

Videos

News

More ▾

Search tools

/HTML/BODY/DIV[@id='viewport']/DIV[@id='main']/DIV[@id='cnt']/DIV[6]/DIV[@id='rcnt']/DIV[4]/DIV

[Data Wiz 2014 Home - DataWiz 2014](#)

datawiz2014.di.unito.it/ ▾

DataWiz is held in conjunction with the ACM Hypertext 2014 conference (September 1-4, 2014). The workshop aims at bringing together an interdisciplinary ...

[DataWiz 2014: 1st Workshop on Data Visualization! » ARCS ...](#)

arcs.di.unito.it/?p=1823 ▾

Mar 26, 2014 - The CfP of DataWiz 2014, the 1st Workshop on Data Visualization, is out. It will be ... Visit the DataWiz 2014 website and submit your work...

[DataWiz 2014 Int. Workshop on Data Visualization - 2nd ...](#)

<https://groups.google.com/a/aixia.it/d/topic/aixia/Ar-xwNr7jZM> ▾

May 16, 2014 - 1st International Workshop on Data Visualization - DataWiz 2014 (<http://datawiz2014.di.unito.it>), held in conjunction with Hypertext 2014 ...

Specifying AOI (area-of-interest) cont.

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Area Name

Area Description

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- **ux.fiit.stuba.sk**