

# How to Motivate Students of Software Engineering

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# Overview

- experiences with teaching of OOP in the Technical University of Košice
- teaching of programming can be really veeeeeeeeeeeeery boring
  - but it can be also a **BIG FUN**

# What are we doing wrong? I.

- OOP is about philosophy – not about technology or language
  - leads to wrong expectations (GUI applications, knowledge of specific language)
  - problem of many courses or books
  - it's definitely not about OOP  
(technology/language first approach)

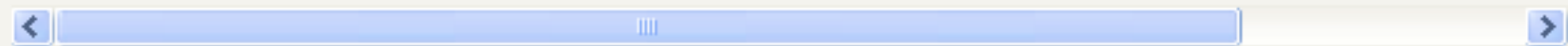
Dispatching - Dispatching.bin

File Help

Open Save Add ... Edit schedule Remove schedule

Schedules Vehicles Drivers

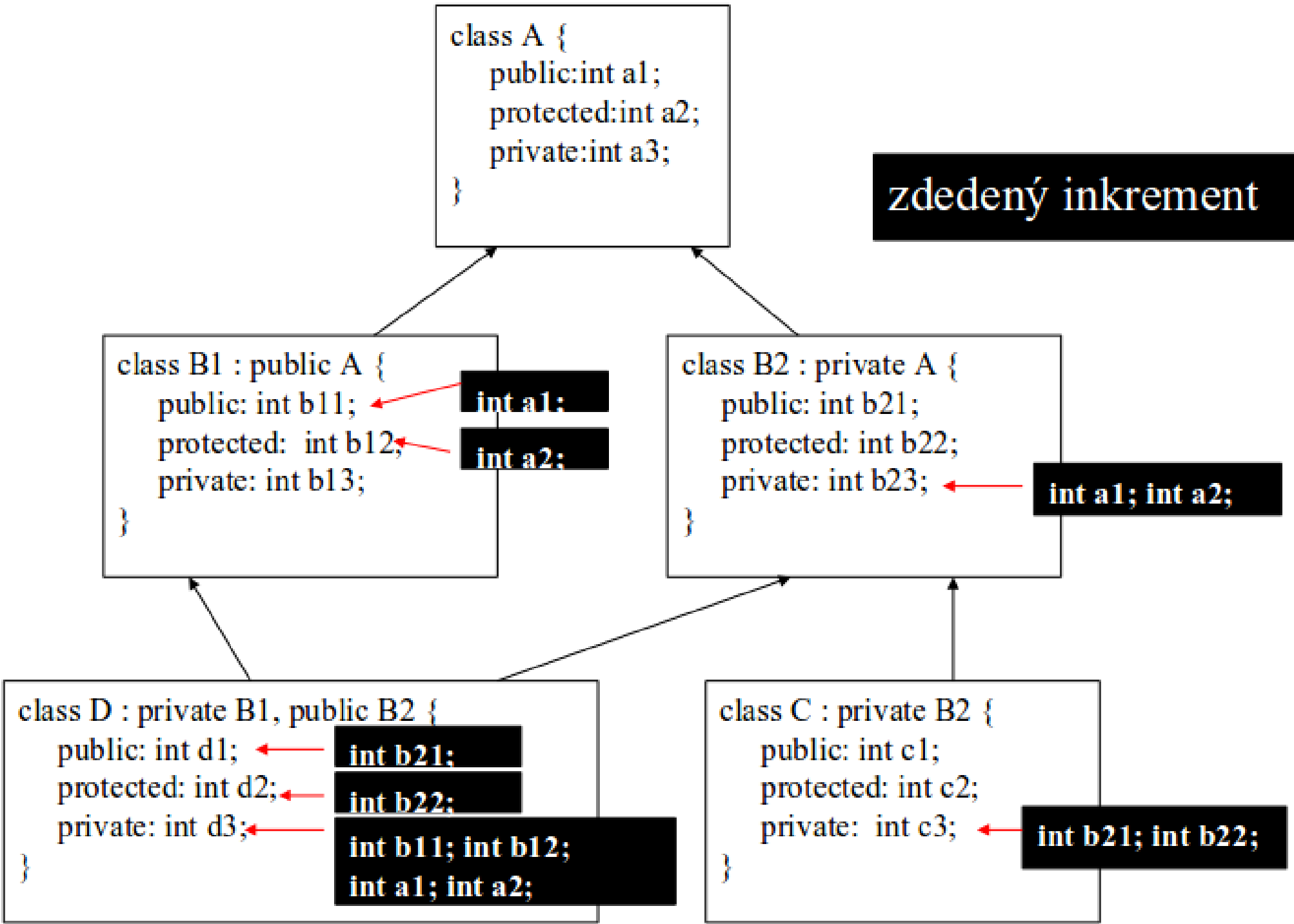
Name	Purpose	From	Till	Vehicle	Driver #1
Croatia	Holiday	21. 5. 2007 7:09	27. 5. 2007 23:00	Iveco Cross...	Gajdová, Blanka
Greece	Stuff movement	21. 5. 2007 7:00	23. 5. 2007 12:34	Toyota Corola	Pilát, Ľubomír
MacDonald	Stuff movement	23. 5. 2007 3:00	25. 5. 2007 14:34	BMW Z8	Fekete, Andrej
Taxi Taxi	Taxi	21. 5. 2007 3:00	21. 5. 2007 3:30	Auido A8	Palko, Jan
Tatry	Tour	21. 5. 2007 1:01	21. 5. 2007 23:59	Iveco Midway	Janko, Miroslav
Prague	Tour	21. 5. 2007 6:04	24. 5. 2007 3:08	Karosa 250	Greško, Marek
Coca Cola	Stuff movement	12. 7. 2007 6:07	26. 7. 2007 1:01	Iveco Daily	Bublavý, Ján
Spain	Holiday	15. 8. 2007 0:03	23. 8. 2007 23:59	Karosa 250	Sabat, Ján
USA	Trip	31. 8. 2007 4:04	6. 9. 2007 5:07	Prosche Carr...	Gdovec, Ján
France	Travel agency	21. 5. 2007 10:00	31. 5. 2007 6:03	Iveco Stralis	Harman, František



Schedules 10 Vehicles 30 Drivers 30

# What are we doing wrong? II.

- the best „killer examples“
  - wrong examples
  - too abstract, too simple, no complex overview of the problem
  - finally – algorithmic problems
  - the examples are **not a challenge** for students at all!!!



# The Games

- special role in the IT
  - motivation for many
  - the market
- big motivation for students
  - case study – create their own game

SOFTWARE NOVÉ DIMENZE

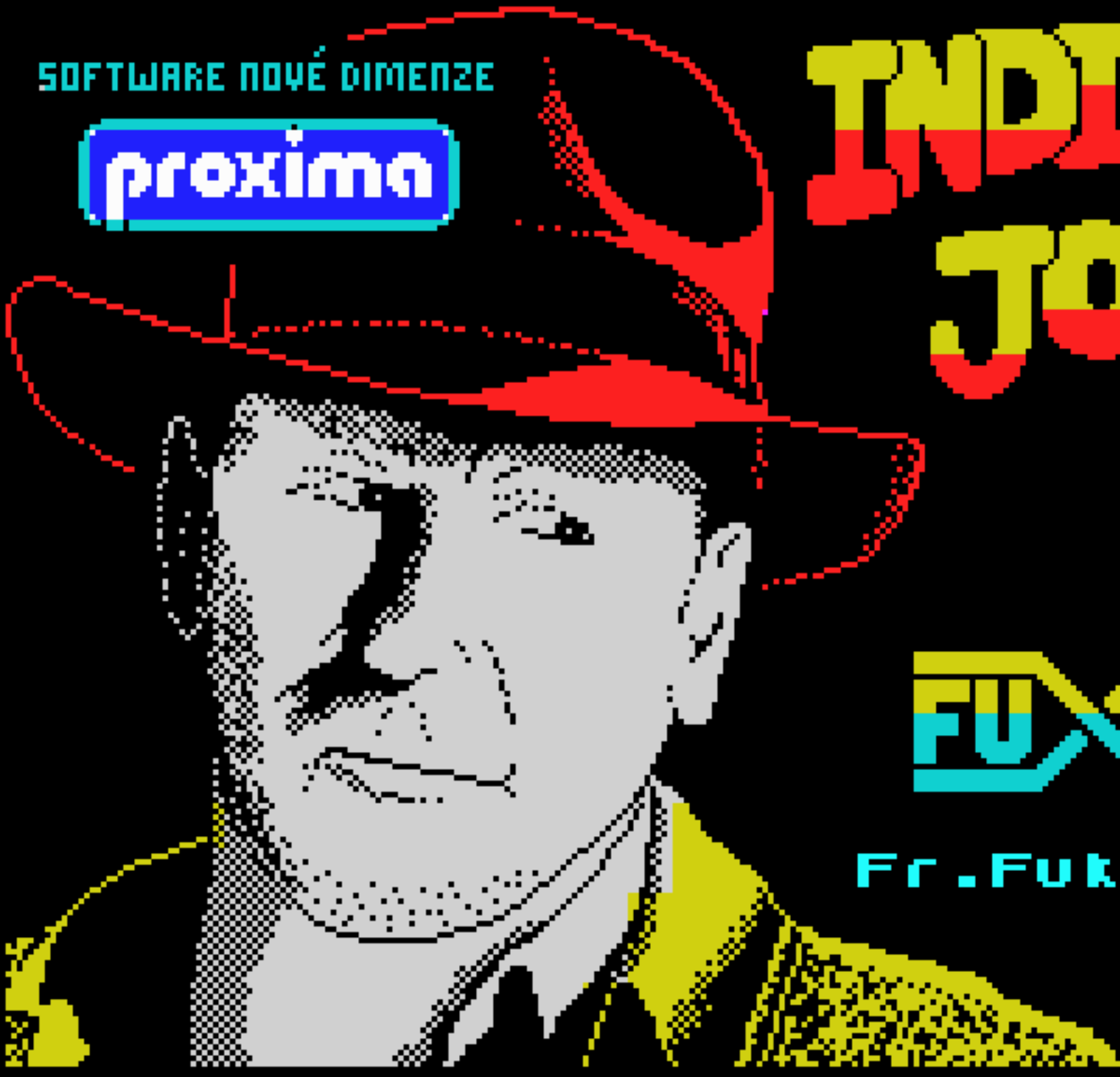
proxima

# INDIANA JONES

# 3

FU OFT

Fr. Fuka 1990



# Structured Scenarios

- problem – focus to the form – not the content
  - leads to use LMS as storage
- activity-based learning scenarios
  - activity means list of tasks/activities (immediate use of received information)
  - or – do you prefer passivity-based learning scenarios?
- it takes time to create good scenario
  - hours + nights + days + never finished ;)

# The Structure

- structure helps with the content creation
- XML + XSL + XSLT = HTML / TXT / LaTeX / ...
- tags
  - TITLE
  - OBJECTIVESs
  - CONTENT
    - STEPs with TASKs
  - ADDITIONAL-TASKs
  - ADDITIONAL-LINKs

# Structured Scenario Live Example

# Student's Reactions

- polls
  - my game
  - case study is place for creativity
  - scenarios provide us great motivation
- forum
  - we help each other
- random conversations

# Following Courses

- Java Technologies
  - Minesweeper game
  - structured scenarios
- .NET Technologies
  - Fifteen game
  - structured scenarios

We want to motivate students!

Questions?