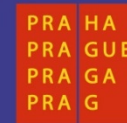




OPERAČNÍ PROGRAM PRAHA
ADAPTABILITA



EVROPSKÝ SOCIÁLNÍ FOND

Pogamut 3 Promo

PRAHA & EU
INVESTUJEME DO VAŠÍ BUDOUCNOSTI

Faculty of Mathematics and Physics
Charles University in Prague
19th February 2015



UT2004 bots made easy!

Pogamut 3, NAILo68 Workshops

Lecture Zero – Promo



Workshops

Outline

1. Themes
2. Concrete Topics
3. Challenges
4. When/Where/Terms



Workshops

(1/4) Themes



Workshops

(1/4) Themes - Real Virtual Worlds



Workshops

(1/4) Themes – UT2004



Workshops

(1/4) Themes – UT2004



Workshops

(1/4) Themes - UDK



Workshops

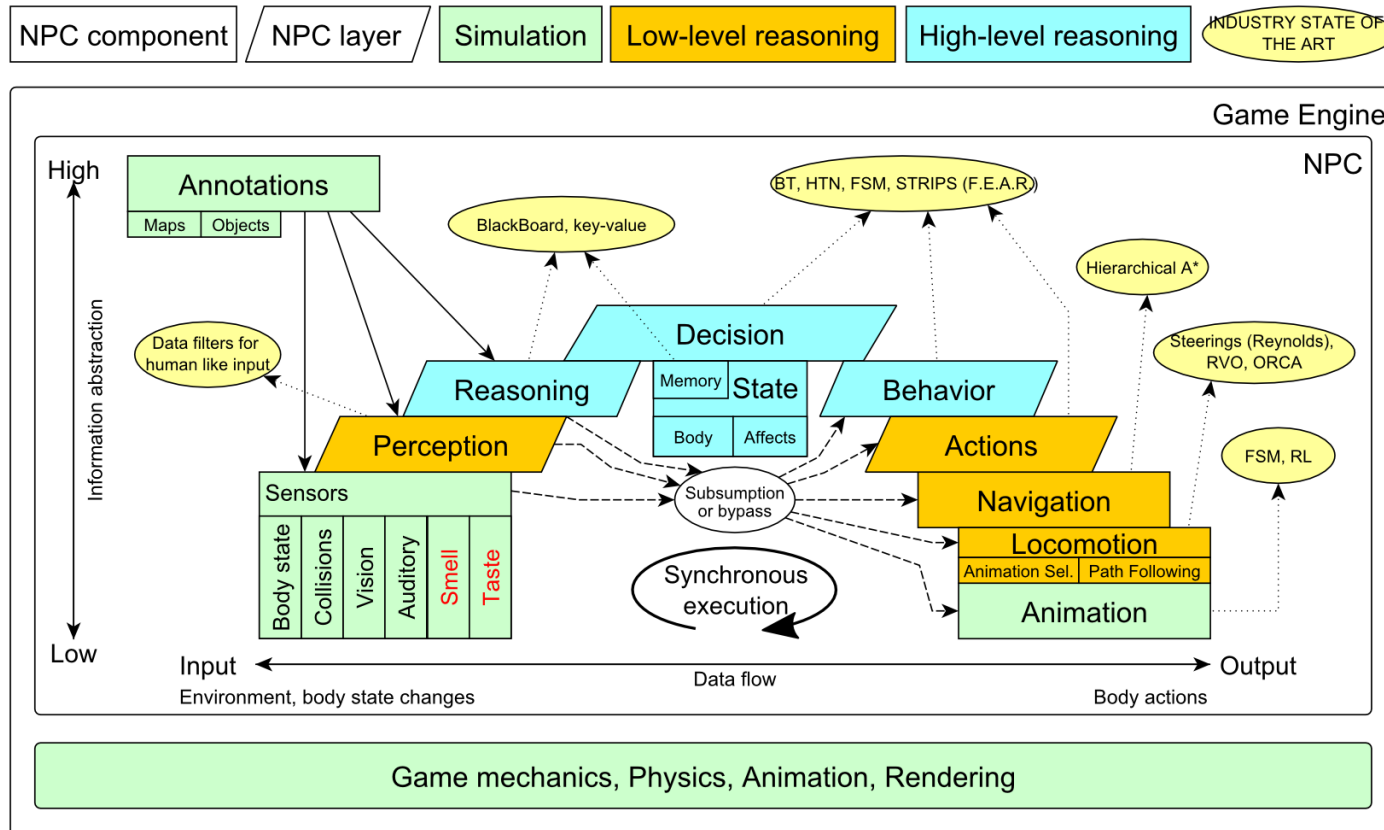
(2/4) Topics



Workshops

(2/4) Topics – GameAI as SoftEng

1. Virtual Mind / Body / World



Workshops

(2/4) Topics – Decision making

2. If-then / FSM / Behavior tree

The image displays a development environment with two main components:

State Machine Diagram (Left): A visual representation of a state machine. It features a vertical list of states on the left and a horizontal list of actions on the right. The states are: fail (green), stay (orange), hit-wall (orange), run-healths (orange), and Action (grey). The actions are: health (green), doNothing (blue), hit (green), jump (blue), succeed (green), and runMedkits (blue). A context menu is open over the 'hit' state, showing options: 'Add single breakpoint', 'Add permanent breakpoint', and 'Remove breakpoint'.

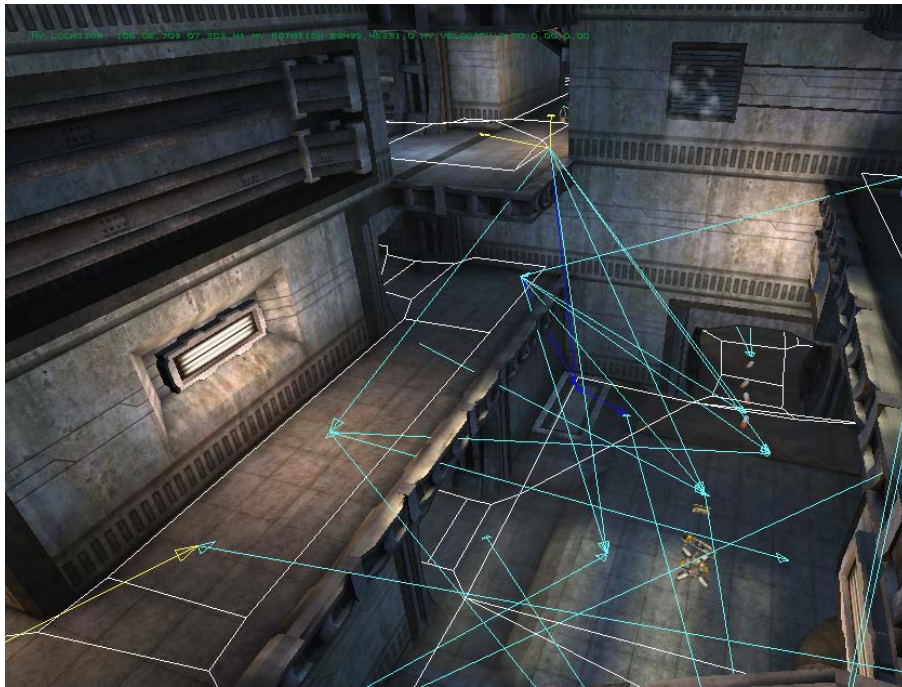
Code Editor (Right): A window titled 'RunMedkits.java' showing the source code for a Java class. The code is as follows:

```
17 @PrimitiveInfo(name = "runMedkits", description = "Run around
18 public class RunMedkits extends StateAction<UT2004Context> {
19
20     @Override
21     public ActionResult run(VariableContext params) {
22         //if (true) return true;
23
24         Item item = ctx.getFwMap().getNearestItem(
25             ctx.getItems().getSpawnedItems(ItemType.Category.
26                 ctx.getInfo().getNearestNavPoint()
27             );
28
29         if (item == null) {
30             ctx.getLog().severe("No known spawned pickup!");
31             ctx.getNavigation().stopNavigation();
32             return ActionResult.FAILED;
33         }
34     }
35 }
```

Workshops

(2/4) Topics – Navigation

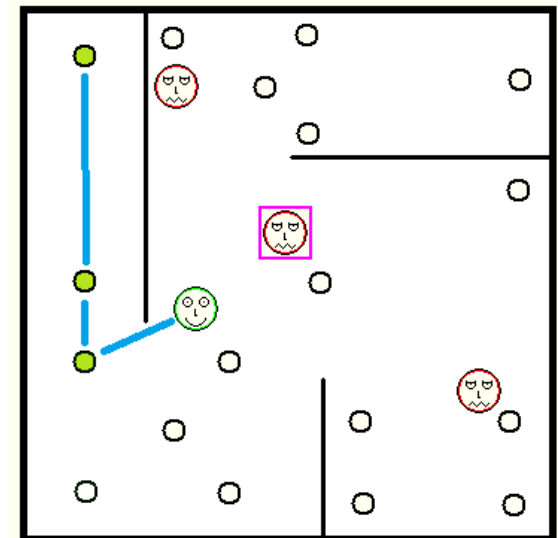
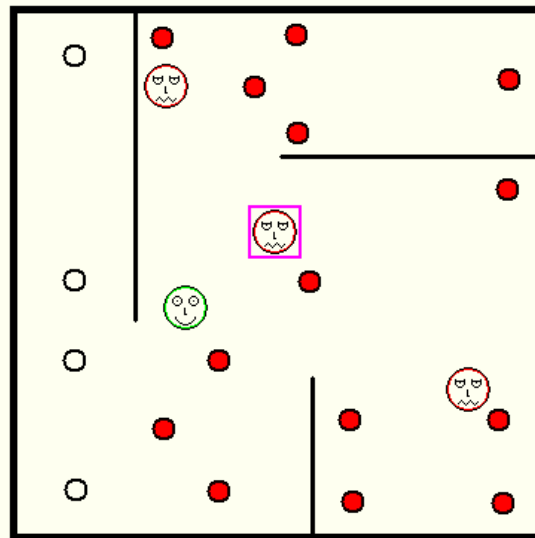
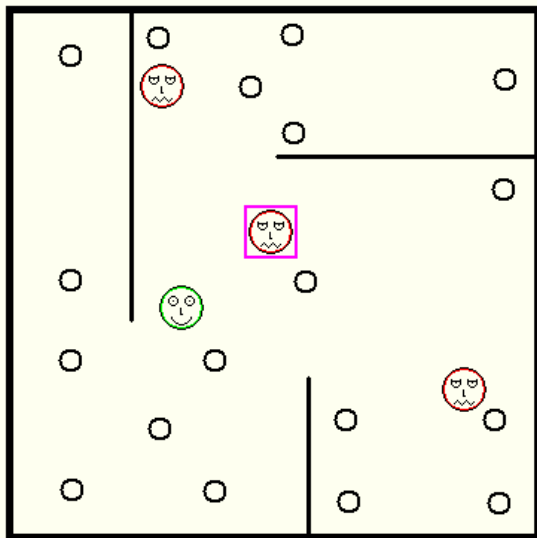
3. Path Finding / Following / Steering



Workshops

(2/4) Topics – Smart Path Finding

4. Advanced A* use



Workshops

(2/4) Topics – 1+1+1 < 3

5. Single agent / Team



Workshops

(2/4) Topics – Some extra?

6. ???

Workshops

(2/4) Topics – Some extra!

6. PogamutCup 2015, prize money, 07-2015
www.pogamutcup.com

Home
Jak se zúčastnit?
Kontakt
O turnaji
Pravidla turnaje
Pro účastníky
Předběžná přihláška
Tým
▼ Výsledky [!]
Battles
Bots
Bots - Sources
Replays
Tabulka
Turnaj

Turnaj je za námi, zvítězil tým Gauner and Frei ze ZČU Plzeň. Více viz [Výsledky](#)

Děkujeme všem zúčastněným a s nadějí vyhlížíme na budoucnost a opakování této akce.

Pogamut Cup je turnaj počítačem ovládaných agentů (botů) v prostředí [Unreal Tournament 2004](#) v módu [deathmatch](#). Turnaj pořádá Informatická sekce Matematicko-fyzikální fakulty Univerzity Karlovy v Praze přesněji výzkumná skupina [AMIS](#). Vlastní soupeření proběhne 29. 11. 2012 v rámci dne otevřených dveří MFF-UK v sídle inforatické sekce na [Malostranském](#)



Workshops

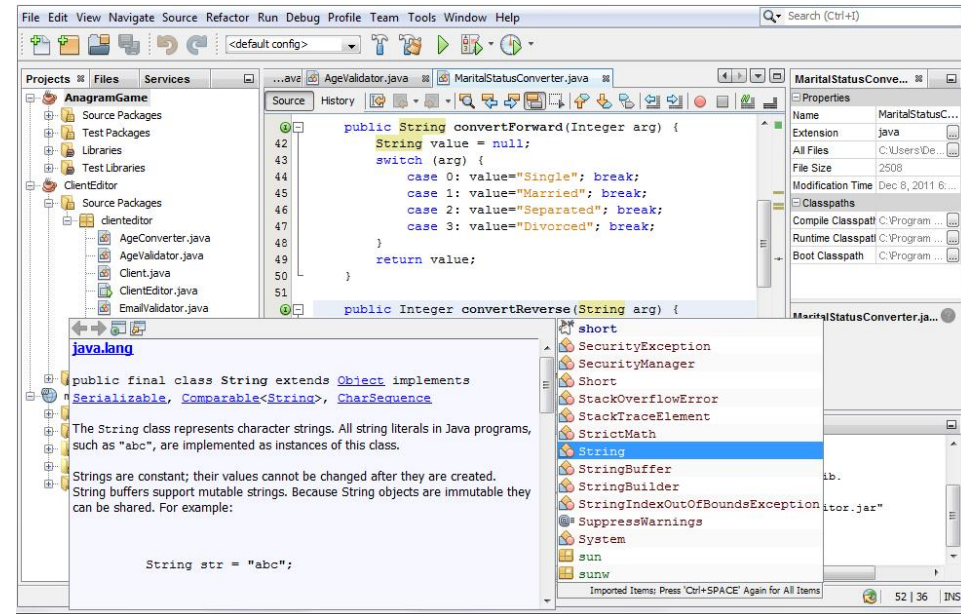
(3/4) Challenges



Workshops

(3/4) Challenges

1. Java (+NetBeans/Eclipse, SVN, Maven)



Workshops

(3/4) Challenges

2. Different programming



Workshops

(3/4) Challenges

2. Different programming



...more thinking, less writing, more trying, brain teasing debugging.

Workshops

(3/4) Challenges

3. PogamutUT2004 - Big complex fishy alien Java library that has roots in stinky UnrealScript

Workshops

(3/4) Challenges

3. PogamutUT2004 - Big complex fishy alien Java library that has roots in stinky UnrealScript

*When you'll be looking at
PogamutUT2004 API...*

Workshops

(3/4) Challenges

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Workshops

(3/4) Challenges

3. PogamutUT2004 - Big complex fishy alien Java library that has roots in stinky UnrealScript

*... feeling from the
debugging of UT2004
bots.*

Workshops

(3/4) Challenges

3. PogamutUT2004 - Big complex fishy alien Java library that has roots in stinky UnrealScript

... feeling from the debugging of UT2004 bots.



Workshops

(3/4) Challenges

4. Tournaments!



Workshops

(4/4) Where, When, Terms

1. Umělé bytosti 2/2
2. Cvičení: SW1, Út 1540-1710, Út 1720-1850
 - Začínáme příští týden v úterý 23.2.2015!
3. Cvičící – Jakub Gemrot
 - jakub.gemrot@gmail.com
 - Zápočet
 - Během semestru nasbírat 160 bodů
 - Prezence, testíky, domácí úkoly, turnaje
 - Udělat zápočtový test (2 hodiny kódění)
 - Nebo místo zápočtového testu mít aspoň 200 bodů

Workshops

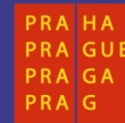
Hope to see >YOUR< bots soon!



<http://pogamut.cuni.cz>



OPERAČNÍ PROGRAM PRAHA
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DĚKUJI ZA POZORNOST



Evropský sociální fond
Praha & EU: Investujeme do vaší budoucnosti