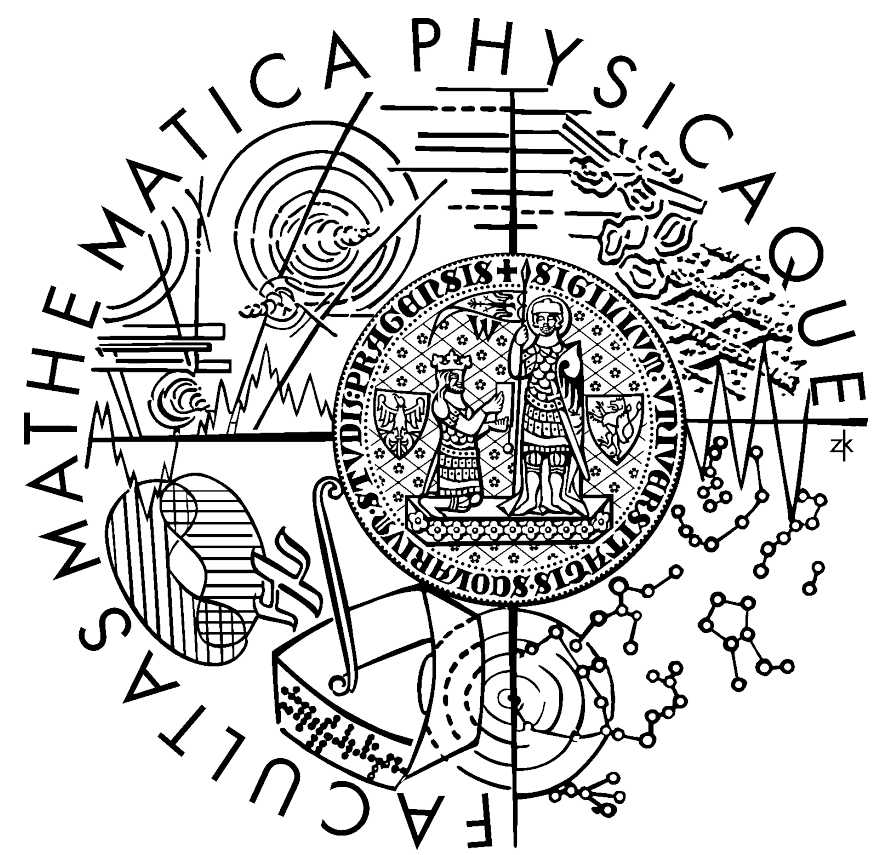




Pogamut 3 Virtual Characters Made Easy !

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<http://pogamut.cuni.cz>

Main contribution

Pogamut 3 provides an IDE and an auxiliary library for fast creation of virtual characters behavior in virtual world of Unreal Tournament™ 2004 and UnrealEngine2 Runtime. Pogamut uses new version of popular GameBots interface and integrates a reactive planner POSH.

Introduction

We have created a platform for easy prototyping of virtual characters **behavior** in complex virtual world of Unreal Tournament 2004 and Unreal 2 Runtime.

Our goal

To provide platform that enables people interested in virtual characters to get started programming in 5 minutes.

Who is it for?

Students and researchers who are interested in modeling of virtual character's behavior.



An example of a bot from Unreal Tournament 2004™

Pogamut's features

Fast start

- Installer
- IDE integration, no need for command line magic
- 7 step by step tutorials showing bots of increasing complexity
- Videotutorials
- Online support on forums
- Opensource

Bot's can be implemented in

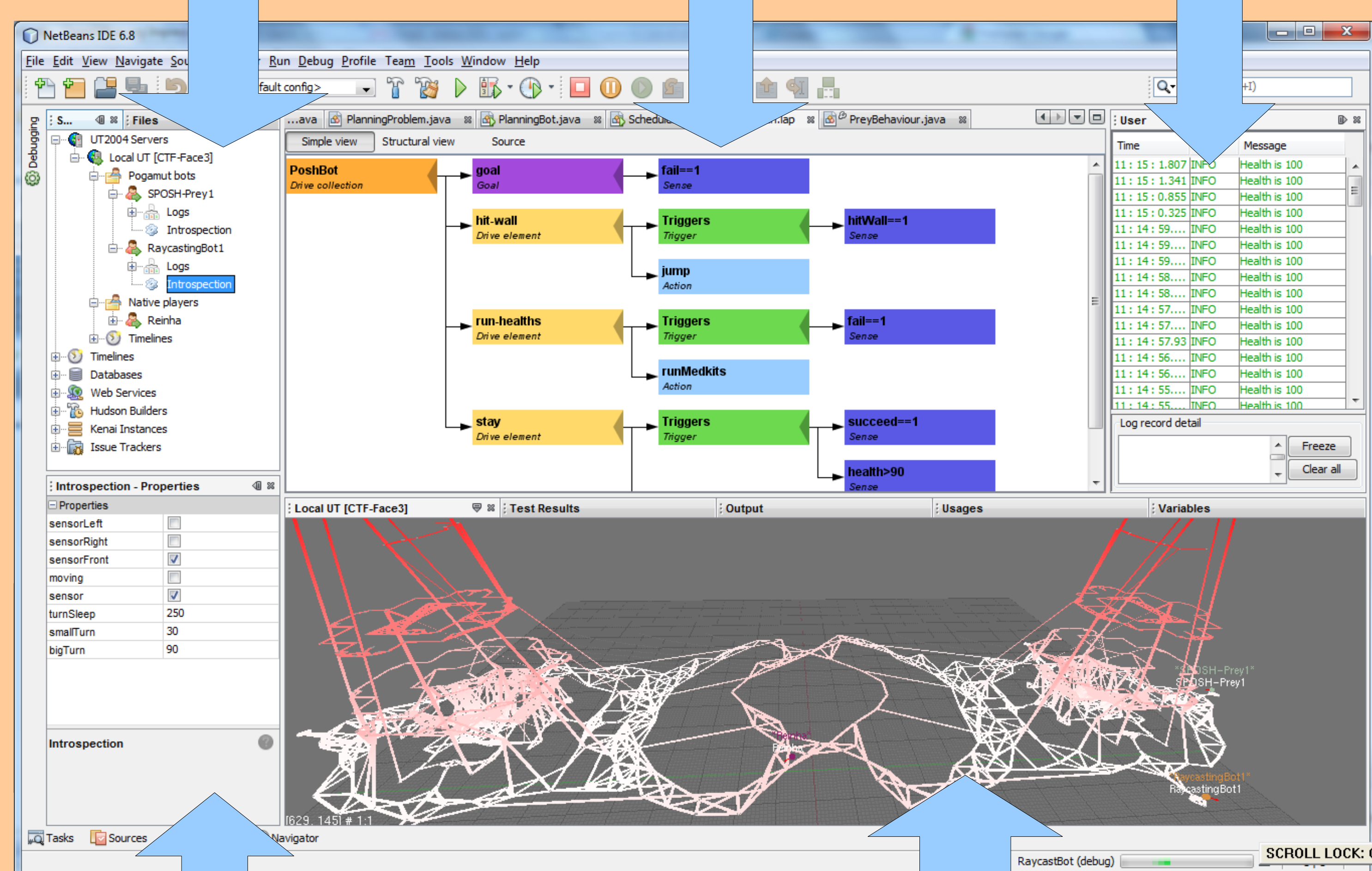
- Java – Java API is 1st choice, it is stable and well documented
- POSH – reactive planner with LISP like syntax, don't be afraid of parentheses, visual editor is part of the Netbeans Plugin
- and possibly more languages build on top of JVM or with Java Script API binding (Scala, Groovy, Python, Ruby, Scheme, ...)

Netbeans plugin features

Management of registered game servers and bots connected to them.

Visual editor of reactive plans coded in POSH. Drag'n'Drop of all elements is supported.

Structured logs of bot's activity.

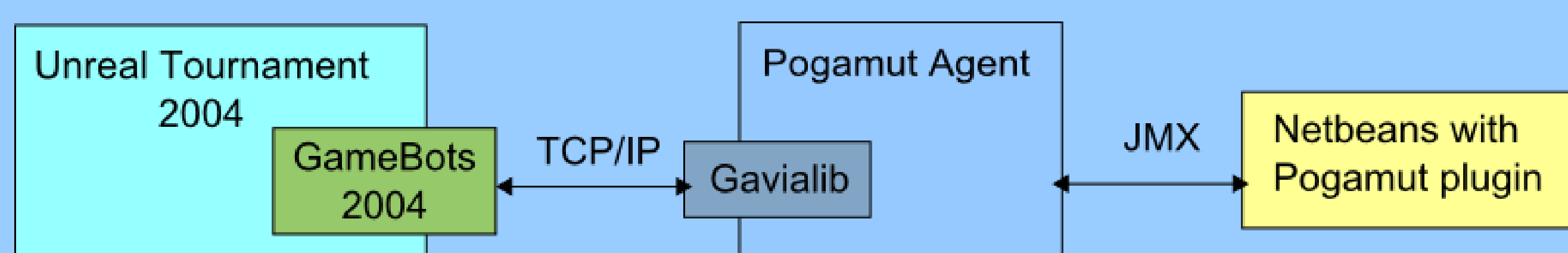


Online introspection of bot's selected variables. Their values can be changed at runtime.

3D visualization of navigation graph. Bots' positions are also show. Navigation graph can be visualized Also directly in the game engine.

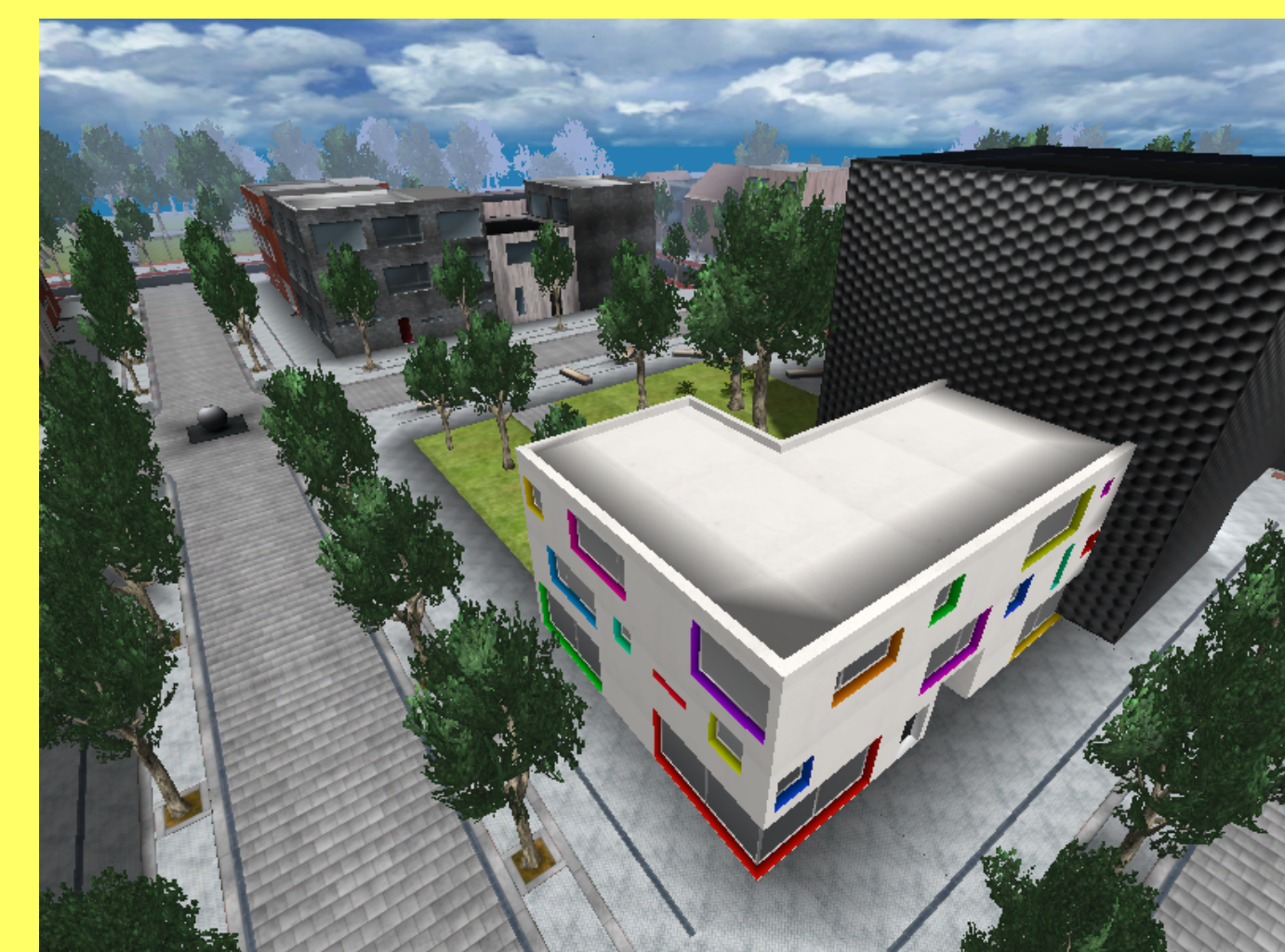
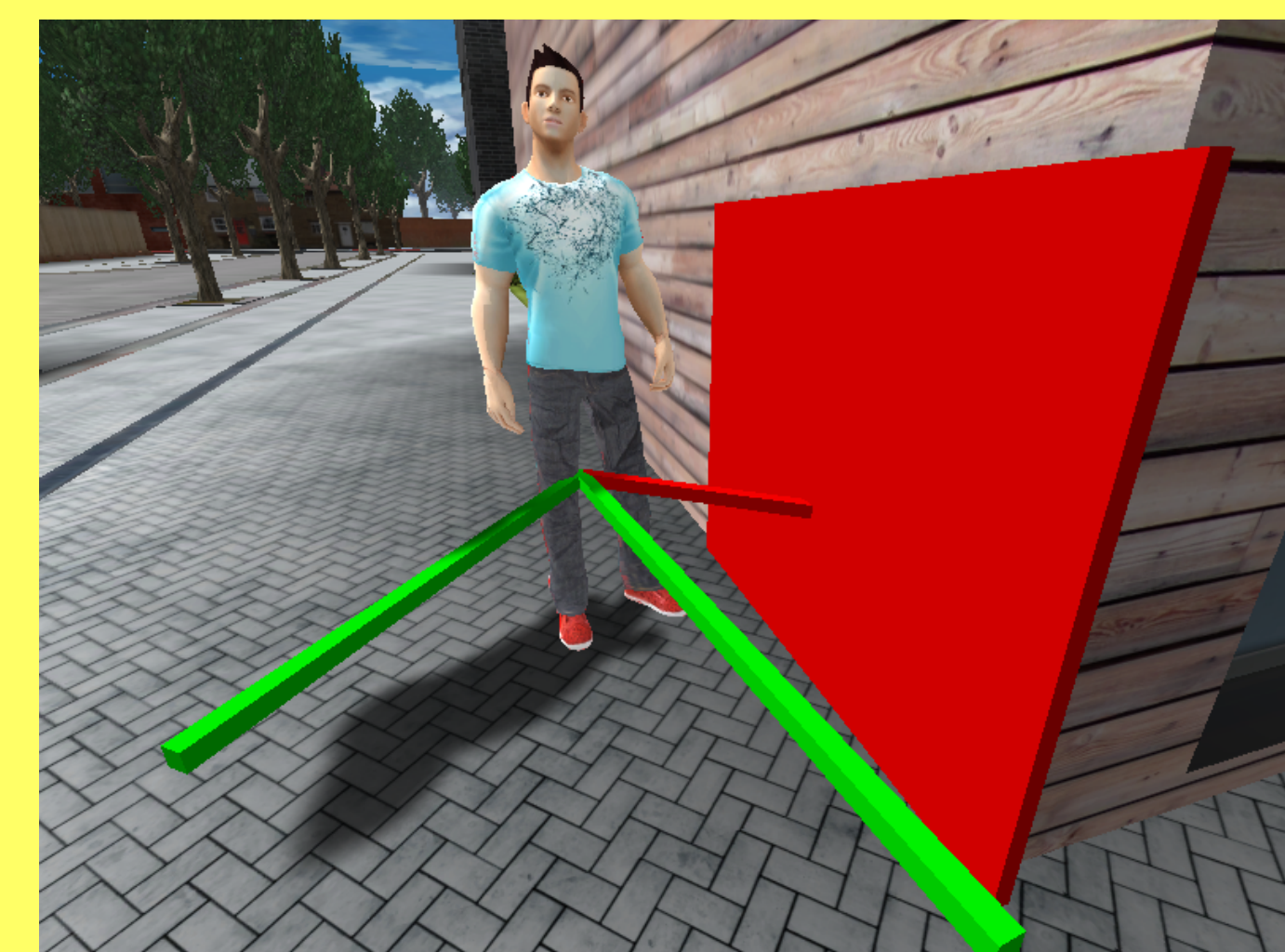
Architecture

- **Unreal Tournament™ 2004** – commercial game used as a virtual world. It is extensible and contains environmental editor.
- **Gamebots 2004** – built-in server in the UT04, which export information from UT04 for the Agent.
- **Gavialib** – highly abstract library suited for interfacing to virtual worlds.
- **Pogamut Agent** – here goes the user logic.
- **Netbeans IDE** – plug-in for Netbeans™ development environment. Provides support for coding and debugging the agent.



Example usage – Project Emohawk

- Scenario featuring four agents playing out a short story (5-10 minutes) with limited user interaction
- Free 3D content in UnrealEngine 2 Runtime (3D city, six models of characters with animations and a dozen of objects)
- Java GUI application for fast scripting of short stories (work in progress)
- Tutorials and graphical debugging tools



Botprize 2010 competition

- Use Pogamut to code bot that passes modified Turing test
- If your bot passes the test you will win **A\$7,000**
- If you will be the best of all contenders but the bot doesn't pass the test you will win **A\$2,000**

www.botprize.org

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See you on <http://pogamu.cuni.cz>