



Xtext & Xtend

Xtext

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Project Description

Creating a DSL in Xtext to simulate the behaviour of people in an emergency situation.



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Xtext



Creating a DSL in **Xtext** to simulate the behaviour of people in an emergency situation.

Xtext



Simulation

Creating a DSL in Xtext to **simulate** the behaviour of people in an emergency situation.

Xtext



Simulation

Creating a DSL in Xtext to simulate the behaviour of people in an emergency situation.



Bmod DSL: concepts

- Easy room creation (with possible occupancy conditions)
- Move through rooms via two-way doors
- Emergency signs can link doors together
- At least one exit
- Custom fire startpoint(s)
- Crowd the floor with people

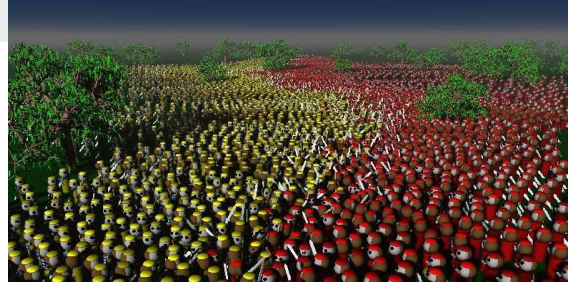
- **Discarded concept of Perception Levels**
- **Discarded concept of Action Profiles** (within Bmod itself)



BreacT DSL: concepts

- Targeting language
- Create actions for people
- Find targets in a single room or on the entire floor
- People cooperation
- Easy use in Bmod

Simulation: How?



- PedSim: *microscopic pedestrian crowd simulation library*
 - 2dvis
 - <http://pedsim.silmaril.org/>
- C++ code
 - Helper classes (simulation namespace)
 - Cmake



Demo

In Eclipse Photon