SceneMaker 3

A Tool for the Visual Authoring of Interactive Virtual Characters

Gregor Mehlmann
Human Centered Multimedia
Augsburg University

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Many applications with virtual characters in the last decade
– Shopping assistants
– Trainers and Tutors
– NPCs in games & IDS

Require ECAs with *natural dialogue & interaction behavior*

**Challenge:**
We need to develop methods and software tools that allow *non-computer experts* to model those ECAs’ dialogue behavior

**Approach:**
SceneMaker 3 is a tool for the *intuitive visual modelling of* ECAs’ behavior. It allows *easy description* of dialogue content and *rapid prototyping* of dialogue structure by non-experts.
Research Projects, Applications, Educational Settings and Field Tests

- KomParse (http://komparse.dfki.de)
- SemProm (http://www.semprom.org)
- Intakt (http://www.innovative-retail.de/)
- SmartSenior (http://www.dfki.de/it/project.php?id=Project_568&l=en)
- DynaLearn (http://hcs.science.uva.nl/projects/DynaLearn/)
- IRIS (http://iris.scm.tees.ac.uk/)

- YellowStrom Energy Adviser
- Virtual Cocktail Guide (https://w5.cs.uni-sb.de/trac/lehrstuhl/wiki/VCG)
- AI Poker Application (http://idw-online.de/pages/de/news249263)

- NanoCamp ’09 (http://www.3sat.de/nanocamp/)
- Kinder-Uni ’09 (www.fh-trier.de/go/kinderuni)
- Girls’ Day ’10 (http://girlsday-augsburg.de/)

- Different Educational Projects
  - Game Programming
  - Multimedia Projects
Central authoring paradigm is the separation of dialogue content and dialogue logic for an independent creation and modification of both. A **sceneflow** is a hierarchical and concurrent statechart specifying the narrative structure of a dialogue and the interaction with the user. A **scenescript** resembles a multimodal movie script containing the verbal statements, gestures, postures and facial expressions of the ECAs.

**Modeling Dialogue and Interaction with SceneMaker**

A simple example of a dialogue game modeled with SceneMaker to get a grasp on how everything works.
SceneMaker’s IDE enables authors to create, maintain, debug, execute and visualize an interactive application via graphical interface controls.

The IDE allows to modify the modeled behavior at runtime and to observe the effects with a runtime visualization of the model.

In the hands-on workshop we will use the IDE in order to create some exemplary and simple dialogue games between a user and ECAs.
The System Architecture and Plug-In Mechanism

- SceneMaker’s *system architecture* enables programmers to create special *sceneplayers* and *plug-ins* as input- and output interfaces between the IDE and a variety of external modules and applications.

- In the *hands-on workshop* we will use a simple *text-based output* representation module and a *typed-text input* understanding module that will be maintained by an expert.
• SOAP, a social game in a virtual beergarden developed for the IRIS project.
• *It does not claim* to introduce revolutionary new concepts for behavior modeling nor to be a complete dialogue or interactive storytelling system.

• *It wants to be* an authoring tool for the intuitive visual modeling of ECAs’ behavior and to allow non-experts to prototype dialogues with ECAs.

• It uses *statecharts* specifying the narrative structure of a dialogue and a multimodal *movie script* specifying the dialogue content in an easy format.

• It should be understood as one of many tools that work together in an integrated environment to create an interactive storytelling application.
The SceneMaker software is freely available for the non-commercial use in your own research projects.

If you would like to have more information, please contact:

Prof. Dr. Elisabeth André  
Human Centered Multimedia  
Augsburg University  
andre@hcm-lab.de

Dr. Patrick Gebhard  
German Research Centre for Artificial Intelligence  
gebhard@dfki.de

Gregor Mehlmann  
Human Centered Multimedia  
Augsburg University  
mehlmann@hcm-lab.de

Thanks! See you at the hands-on workshop...