# SOAP: A Social Game Storytelling Prototype

We created a social game located in our *Virtual Beergarden* scenario which is suited as location for a variety of imaginable stories. We chose a story from the popular soap opera genre in which the user and the virtual characters are involved in a romantic conflict. The user, who is represented by an avatar can freely move through the beer garden and meet a group of girls and a group of guys as well as a waitress. The user can approach the focus groups, listen to their conversations or contribute to the story. Through dialog interactions, the user can advise the characters and, thus, influence the progress and outcome of the story.
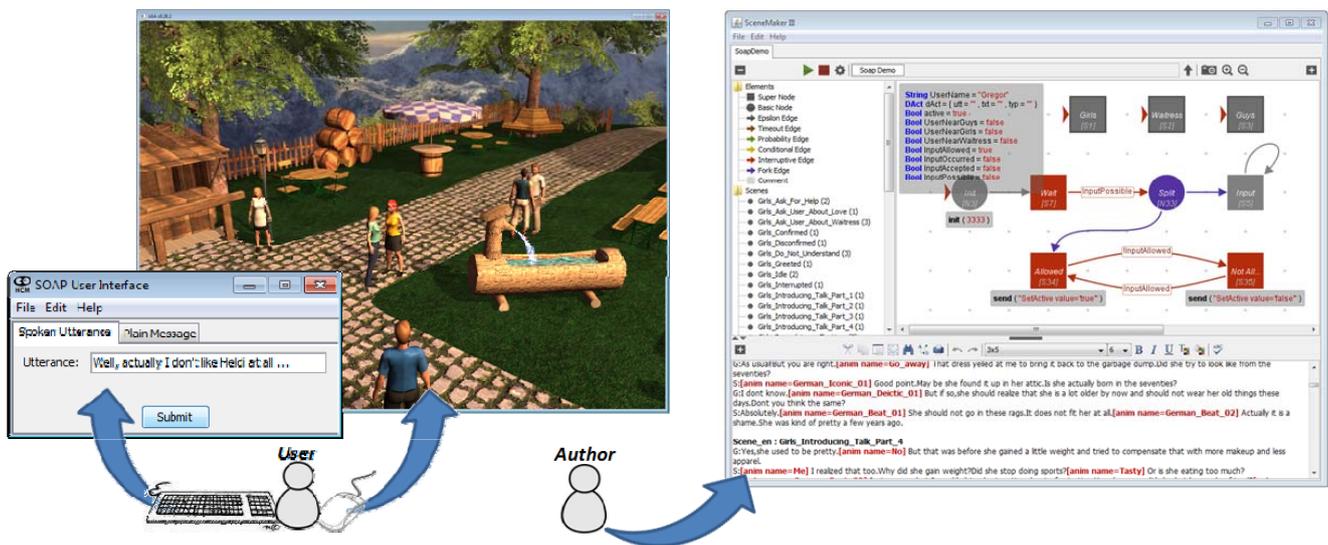
User Interface

The *Virtual Beergarden* application includes an animation system with real-time event processing and blending system. It allows the *automatic animation selection* for autonomous low-level behaviors in dialogs such as positioning, orientation or gaze. Animations are specified in a nonverbal knowledge base. In the current version of the system, each agent can perform over 40 different gestures and postures.

Our system allows a real-time *natural language interaction* rather than interaction through constrained predefined choices in a round-based way. This shall give the user the impression of self-control and presence. The interpretation pipeline relies on a semantic parser mapping text input to abstract dialog acts. Thus, we ensure a contemporary, adequate and context-sensitive reaction to the user's utterances, in order to give the user the impression of effectance.

Authoring Framework

Behavior modeling as well as dialog- and interaction management are realized with the visual authoring tool *Scenemaker*. It provides a visual approach to handle typical challenges in the creation of applications with interactive virtual characters, such as the modeling of reactive and deliberate behavior, the synchronization of multiple virtual characters as well as the handling of user interaction in multiparty dialogs. An author can specify dialog- and behavior content in a multimodal *scenescript* and model the logic of behavior with a *sceneflow*. Sceneflows adopt and extend concepts that can be found in various state chart variants. They enfold concepts for hierarchical refinement and parallel decomposition as well as an exhaustive runtime history and multiple interaction policies. Scenemaker's graphical user interface allows non-experts to create and simulate the virtual characters' behavior in a rapid prototyping style.