Situation Management Module

1 Functionality

(1) Recognition, (2) processing and (3) adjustment of the situation, performed based on the two-layered knowledge representation (cf. Fig. 2).

2 Technical Description

Technically, the Situation Management Module is based on a combination of the semantic knowledge management capabilities provided by the Knowledge Repository and Java logic to determine the best fitting situation description and react accordingly.

This means, that the systems continuously checks which situation description can be fulfilled regarding the availability of content items and presentation devices as well as regarding the preferences of the user. If all requirements are fulfilled the situation is performed by the system as described in the situation description.

3 Inter-Module Communication

The module intensively uses the semantic capabilities and services provided by the Knowledge Repository Module as well as the services of the Context Management Module. Situational changes are broadcasted using messages.

4 Strengths of Module

In comparison to other approaches of situation management the presented approach is highly dynamic regarding the situational scenarios, the users and their preferences as well as the involved sensing and presentation devices. The system can easily be extended with new scenarios by adding further situation descriptions.