Dynamic Voice Communication 
Support for Multiplayer Online Games

I. Dynamic Voice Communication in Groups
Issue
• Team play is the main incentive for players of Multiplayer Online Games
• Static chat rooms do not satisfy the needs of tactical team play

Goals
• Assignment of players to groups should be adaptive to the game situation
• Support efficient group communication using dynamic group partitioning

II. Roles, Groups and Template Planning
- Roles are essential for the organisation of team play within groups
- Character roles depend on character class and duties and responsibilities
  • E.g. short range / long range damage dealer, controller, supporter
- Metaroles and command structure are game independent
  • E.g. team leader, reporter
- Groups are defined by strategies and tasks to fulfill certain goals
- Planning templates for group assignment
  1. Assignment of meta roles and character roles to the team members
  2. Definition of occurring game situations \rightarrow situation templates
  3. Group partitioning for different game situations

III. Communication Configuration Tool CCT.KOM
- Adding dynamic support for a hierarchy of members
- Creation of voice communication channels on the fly
- Fast access to group assignments using keyboard shortcuts or ingame information
  • Template switching
  • Direct player communication (only for small groups)
- Allows team leader to mute all other speaker to issue important instructions
- Interface to the game client for information exchange and ingame control
- Using mumble as a gaming open source voice communication tool
  [http://mumble.sourceforge.net]

IV. Future Work
- Integrate CCT.KOM into a Multiplayer Online Game
- Utilize ingame information for automatic control of dynamic voice communication
  • Situation based template switching
  • Auto assignment of players to chat rooms depending on their virtual situation
    (e.g. location based)