During many group meetings, mobile devices are on the table and users perceive the spatial arrangement of the devices, gaining spatial knowledge of the meeting situation. Mobile devices are capable of computing spatial relationships between devices, for example by using ultrasound sensors.

Little is known about what helps the user to match a spatially aware user interface with the spatial knowledge he has gathered about a real world situation. We have 3 research questions:

1) What is the relationship between the real world, the visualization and the user’s understanding, i.e. what factors influence his understanding.

2) How best to represent and visualize spatial relationships to the user?

3) How efficient is the integration of spatial information for specific tasks?

1.1 Does viewpoint influence spatially aware user interfaces?