LFE Medieninformatik



# Augmented Warhammer

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# Original Project Idea

- AR realization of a round based tabletop game related to Warhammer 40k

- application observes the game rules and displays additional information

- restricted to two players

- three units per player with unique capabilities

- virtual playfield of 1x1 meter

# Realization

- realized in C++ with ARToolkit and OpenGL

- playfield is a virtual area, spanned around a multi-marker

- each unit is represented by one marker

- one marker for round change

- activation of a marker by covering it for two seconds -> all markers must be visible all the time

- three kinds of units

- within one round a player can either move a unit and/or attack or do nothing

# Realization

- unit positioning: position of each marker is projected in the 2D surface of the playfield

- movement of the units by moving the markers

- radius of movement and attack are visualized by drawing colored discs around the units

- melee units attack automatically after being moved

- target of distant attack units is selected by activating the corresponding marker
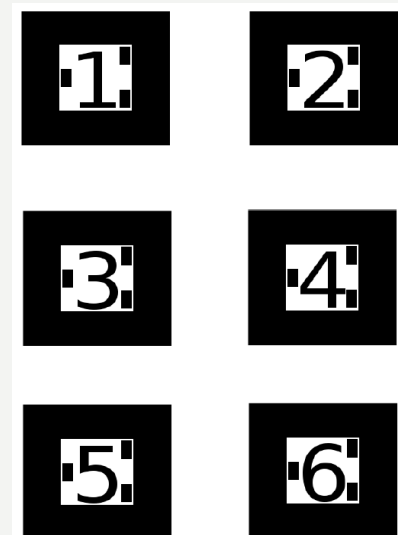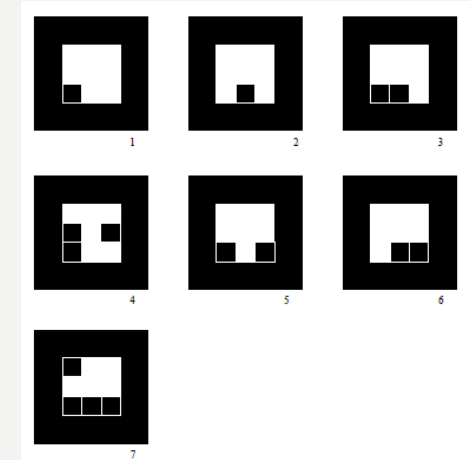
# Problems

- units are sometimes displayed above the markers (up to 20cm)

- sometimes problems with the detection of markers

# Nice-to-Have

- animations

- variable number of units and players

- alternative solution: activating markers with selection marker

- save and load feature

- interaction sounds