Tracking Technology for Multiple Device Interaction

The Principle: Angle of Arrival

The beacons detect and transmit IR signals within sectors.

The array system has an accuracy of min ±10°.

Position Determination

Sectoral position and orientation determination: If another beacon is detected in one sector, this sector is tagged.

Vectors of tagged sectors are exchanged via LAN connection.

Communication

All beacons communicate via LAN.

In the future, communication should be realized via infrared, too.

Test Application

Left: Three beacons placed in an arbitrary position.
Right: The computed positions and orientations of all beacons are visualized.

Drag and Drop

Drag and drop of data from one device to another with the mouse between beacon equipped devices.