

Tinmith – Mobile Outdoor Augmented Reality Modelling Demonstration

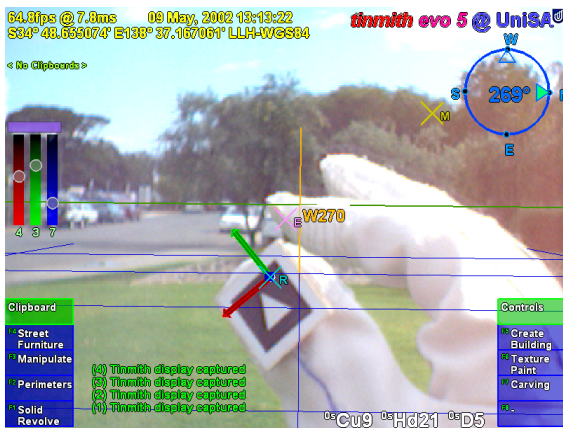
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At the ISMAR 2002 conference, we will be demonstrating our Tinmith augmented reality system. The Tinmith AR system allows users to move freely in an outdoor environment, and is controlled using a set of pinch gloves and a specialised user interface. Using novel modelling techniques we have developed, it is possible for the user to capture the 3D geometry of outdoor structures, such as buildings, cars, boxes, trees, and ground features such as roads, grass, and fences. While traditional AR systems tend to passively consume information, this system allows users to create 3D spatial information in real time.

For this demonstration, we will bring the backpack computer and all necessary supporting components to perform demonstrations of the software both indoors and outdoors if the weather and conditions permit. For the outdoor demo, people will be able to observe the system operated by an expert, with observers able to watch the live AR video from a portable screen on the backpack. Next, after some brief initial training, users will be able to try the system themselves to perform some simple tasks. Due to battery life constraints and possible poor weather, the duration of the outdoor demos will be limited and we will also be presenting the system indoors during other times. While indoors, users will be able to inspect the equipment, experience the modelling software from a fixed position, and view videos of it in operation from previous runs.



Modelling cursors with pinch gloves



Front view of backpack



Rear view of backpack