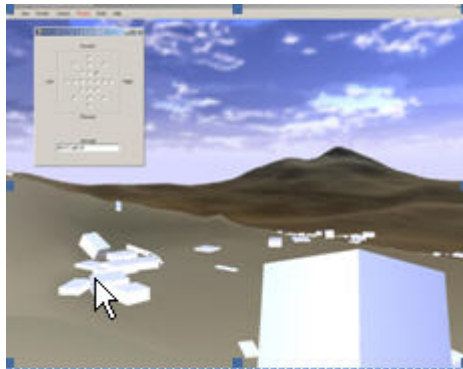
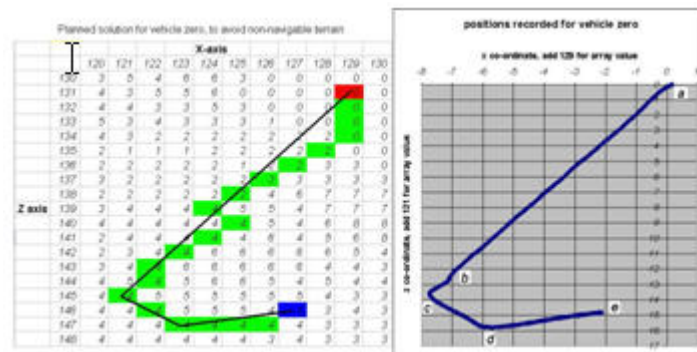


## Team robotics simulation

As a lead-in to Modular Robotics in Immersed environments, simulations were carried out in Microsoft Robotics Studio to evaluate the effectiveness of control algorithms that may be implemented in the real world. This software package employs a physics engine to provide accurate representation of robot movement and interactions between entities in a simulated three dimensional world. Presented simulation work to date includes terrain mapping and analysis, autonomous path planning and team based decision making. The robots simulated so far include tracked and four wheel drive vehicles equipped with a range of sensory packages, including cameras and scanning laser range finders.



View from robot mounted camera driving around a simulated, unstructured, 3D environment



Left, an example of a planned path generated in microseconds from an a-priori terrain map; and right, the actual path followed on the basis of this planning in the simulated environment.