

## **Ajax, VWD and simulations**

### **Introduction**

Asynchronous message passing, Java and XML have been used to add a new level of interactivity to web sites that is commonly known as AJAX. It is supported by the Microsoft Visual Web Developer environment.

A number of simulations have been developed by CBS students that use simultaneous connections between disparate computers over the internet, mediated by a combined web and application server. These applications ranged from playing games such as Cluedo to more serious business simulations. However they have tended to be relatively technical and often use low-level code.

The purpose of the project is to review the extent to which AJAX/VWD might offer a simpler approach to networked simulations whilst being sufficiently robust and responsive.

### **Objective**

Evaluate the potential for AJAX to offer a mechanism for facilitating networked simulations.

### **Tasks**

- Become familiar with the capabilities of AJAX, from the literature and examples on the web.
- Critically assess its contribution in general and to networked simulations in particular.
- Design, develop, test and evaluate one or more simulations that illustrate the potential. These may be based on prior work if desired.

### **Notes**

One limitation is the individual installation of VWD; although multiple sessions may be run, a full evaluation will require the use of a central server and may present challenges in debugging and testing. The use of VWD may be negotiable.

### **Pre-requisites**

The student should have significant exposure to web applications development.