

Matters arising ... things to reflect on / to be reflected on in the course of the module!

- **Programming paradigms:** EDEN/DOSTE is ostensibly drawing on many styles of programming - see for instance Nick Pope's [introduction to DASM](#), which refers to *prototype-based object languages, functional languages, data-flow* and *spreadsheets*. Inspecting the gate.dasm files closely will reveal the influence of these different paradigms. Making a multi-paradigm programming environment coherent is a fundamental unresolved research problem.
- **State vs behaviour:** There is a tension in the modelling between observables that are perceived to be subject to continuous change (e.g. the orientation of the Stargate) and those that are subject to discrete changes (e.g. the dimensions of the Stargate). There is a distinction between dependency in which the value of an observable affects the future value of another observable (perhaps the same one - hence 'cyclic dependency'), and dependency in which the current value of one observable depends on the current value of another (hence acyclic dependency). Classical programming is much vexed by the relationship between the operational state-based semantics and the declarative denotational semantics.
- **The importance of the experiential aspects:** The Stargate model makes quite intense demands on the hardware. It only runs on certain platforms, and graphics cards etc. The efficiency of the DOSTE interpreter is very significant in supporting the authentic "Stargate experience". The knowledge of the human agent interacting with the model also contributes to the quality of the experience. What is made visible to the human interpreter, and what affordances the human agent has to interact also shape the experience.