Seminar T4: Programming as Modelling

4.1 Background issues

State cf mode (p32 Lamb)

mode = set of states
1. Externally visible behaviour of the system differs from one mode to another
2. The system moves from one mode to another when certain externally visible events happen.

Harel: one-person programming

tension between operational semantics and semantics of semantics

state-charts

Simula and issues for OOP

4.2. Agent-oriented Modelling over Definitive Representations of State

Reactive system specification:
    what are the agents? how do they interact?
    modelling via
        how respond to environmental state-changes
        how acts to change environment

Definitive scripts and agents

Requirement defined by the imagined system   R
Computer Model: animation for devices and protocols   C
Devices and programs as extracted from the computer model   P

Foundational concerns: where does Harel's paper leave us?

References

D A Lamb, Software Engineering: Planning for Change, Prentice-Hall 1988
D A Harel, Biting the Silver Bullet