

Module S4 Empirical Modelling for Concurrent Systems

Timetable

Monday 3rd March 1997: Semantics of Interaction

- 9.15 M1 Module Overview and Introduction
Handout: **Timetable? Bibliography, New Paths**
[Brooks + Harel: Silver Bullet, Booch + Deutsch]
- 9.45 Demonstration: The Vehicle Cruise Control System
VCCS listings
- 10.00 M2 Lecture 1: A Perspective on Concurrent Systems
11.00 *Coffee*
- 11.15 M3 Tutorial 1: Introduction to tkeden
- 11.45 Demonstration: Jugs, Urchin cricket
Handout: **jugs.e, urchincricket.e**
- 12.00 The Cricket Laboratory
Handout: **The Cricket Laboratory, assignment [Cricket Video?]**
- 1.00 *Lunch: [Hugh Darwen + Paul Ness]*
- 2.00 M4 Tutorial 2: Introduction to Definitive Notations
2.45 Demonstration: The Roomviewer
Handout: **Cabinet.d pun**
- 3.15 Exercises in tkeden animation
Handout: **Getting Started with donald + room.d, the cricket field**
- 4.00 *Tea*
- 4.15 M5 Lecture 2: Empirical Modelling for the Single Agent
Handout: **James Appendix, OXO paper**
- 5.00 Laboratory: OXO-like models

Tuesday 4th March 1997: Agency in Concurrent Systems

9.00 T1 Lecture 3: Concurrent Systems Modelling:
Agentification, Artefacts, Animation

9.45 Demonstration: Railway Animation

Handout: **Railway Animation LSD**

10.00 T2 Lecture 4: The LSD Notation for Agent Specification

11.00 *Coffee*

11.15 T3 Tutorial 3: Principles of LSD specification

12.00 Case studies: Telephone, Railway Station Animation, Electronic Catflap etc.

Handout: **LSD Telephone, LSD Electronic Catflap**

1.00 *Lunch*

2.00 T4 Lecture 5: Artefacts in Visualisation and Concurrent Systems Modelling

Handout: **IEE Artefacts paper, Harel: On Visual Formalisms**

2.45 Demonstration: Visual Interfaces with SCOUT and DoNaLD, Digital Watch

Handout: **roomviewer.s**

3.00 Tutorial and Laboratory: Cricket Scoreboard, OXO display + game interface

4.00 *Tea*

4.15 T5 Tutorial 4: An Introduction to Scout

5.00 Tutorial and Laboratory: Constructing Artefacts using tkeden

Wednesday 5th March 1997: Explanatory and Empirical Modelling

- 9.00 W1 Lecture 6: Empirical Modelling as Explanatory Modelling
Handout: **AIZU paper**
- 9.45 W2 Back to the Future: Current Computing in Railway History
- 10.30 W3 A Practical Exercise on LSD: Historical Railway Accidents
Handout: **Issues for the Railway Disasters**
- 11.00 *Coffee*
- 11.15 Case study: Historical Railway Accidents
Handout: **Talking Points for Historic Railway Accidents**
- 12.00 Discussion of Railway Accidents
- 1.00 *Lunch*
- 2.00 W4 Video: One Day in Severn
Handout: **Map of Shrewsbury Station, I Spy Sheet**
- 2.30 Tutorial 4: Observables in Railway Interaction
- 3.00 Laboratory: Integrating Cricket Models
- 4.00 *Tea*
- 4.15 W5 Seminar 1: Concurrent Engineering for Concurrent Systems
Handout: **IEE / agency in tkenen / Worlds Before and Beyond Words**
- 5.00 Laboratory: Cricket Integration issues

Thursday 6th March 1997: Modelling System Behaviour

- 9.00 Th1 Lecture 7: The Abstract Definitive Machine
Handout: **ADM picture [add to Th1?]**
- 10.00 Tutorial: Animating LSD specifications in the ADM
- 10.15 Case studies: Beetles, Classroom Interaction, Cricket, Railway Animation
- 11.00 *Coffee*
- 11.15 Th2 Lecture 8: The ADM in Computer-Based Empirical Modelling
- 12.00 Th3 Tutorial: Linking the ADM and EDEN – OXO in the ADM
Handout: **Simon's Slides on ADM and EDEN (should EDEN be earlier?)**
- 1.00 *Lunch*
- 2.00 Laboratory and Review of Previous Projects
- 4.00 *Tea*
- 4.15 Th4 Seminar 2: From Principles vs. Pragmatism to Principled Pragmatism
Handout: **Baldwin, Cantwell Smith**
- 5.00 Laboratory

*Cricket project organization
LSD Cricket*

Friday 7th March 1997

9.00 F1 Lecture 9: Issues for EM, Future Research Directions and Projects

Handout: **DAM + JAM + HODs + translation?**

10.00 Laboratory and Individual Consultations

11.00 *Coffee*

11.15 Laboratory and Individual Consultation

12.00 Concluding Discussion

12.45 Module Debriefing

1.00 *Lunch / End*

