Relating Viewpoints: a preface to Viewpoints 96

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Outline & Objectives

These Proceedings constitute the starting point for Viewpoints 96, subtitled the International Workshop on Multiple Perspectives in Software Development. The papers (31, excluding this preface) outline the positions and contributions of the key research teams in this area.

The construction of a complex description or model involves many agents (aka participants or actors). These agents have different perspectives or views of the artefact or system they are trying to describe or model (the domain of discourse). Examples might be performance, architecture, security, and so on. These perspectives or views are partial or incomplete descriptions which arise because of different responsibilities or roles assigned to the agents. These responsibilities or roles may be organisationally defined, follow some defined structuring of the underlying artefact or system, or may reflect different modelling or descriptive capabilities. The combination of the agent and the view that the agent holds is termed a viewpoint. The study of viewpoints embraces the relations between views, between views and agents, and between agents. Rather than providing an introduction to viewpoints in this preface and risk repetition the interested reader is referred to [1].

The objectives of the workshop are to establish a joint understanding of the critical issues in the study of viewpoints and to share techniques, methods and tools. The workshop aims to bring together strands of work within software engineering which are more commonly separated. It also seeks to draw on those in related disciplines outside software engineering, such as the computer supported cooperative work, information and database systems interoperability and distributed artificial intelligence which share our interest in viewpoints. We would argue that many of the most interesting research areas run across the boundaries of conventional specialisations and arise from taking a *problem* focus.

In the workshop call we identified an "open list of themes and issues". These were:

methods – for example, methods which deploy viewpoints and method construction using viewpoints.

consistency, conflict resolution – for example, checking consistency, managing inconsistency between viewpoints, detecting and resolving interference or conflict among viewpoints.

tools, infrastructure, environments – for example, tools which support various overlapping viewpoints, infrastructure for potentially distributed viewpoints and environments that structure communication between viewpoints.

representation – for example, notations or formalisms which lend themselves to specification of partial views.

applications – for example viewpoints applied in requirements engineering, systems architecture, implementation, viewpoints on process and workflow.

management – for example, organising work using viewpoints, traceability and accountability among viewpoints.

The proceedings are organised in sections roughly corresponding to these themes and issues. The categorisation is a very rough one. Rather surprisingly we received no suitable papers in the areas of methods or management. We have added two sections, one to cover contributions from related areas, specifically object-based software systems, and the other to cover overarching or framework contributions.

It is our aim to make a heavily edited record of the workshop discussions available. At a suitable distance in time from the workshop those interested should be able to obtain it from http://www.soi.city.ac.uk/finger/acwf/viewpoints96

The reader will have noticed that these proceedings are shared with the International Workshop on Software Architecture also run in conjunction with SIGSOFT 96. The joint production of the proceedings affords an interesting opportunity for intellectual cross-fertilisation which ought not to be missed. Immediate connections are suggested by the idea of architectural viewpoints, more radically both workshops share an interest in new component concepts and managing complex structures.

References

[1] Finkelstein, A. & Sommerville, I. (1996); The Viewpoints FAQ; Software Engineering Journal; 11, 1, pp 2-4.