A Report on the First Meeting of the Petri and Pi Group

Statement by the Organizers

The Petri-Pi Group had its first face-to-face meeting at the Technische Universiteit Eindhoven from 6 to 8 June 2005. What follows is a brief description of the group and summary of the event, for the interest of the general business process modelling community.

The group was instigated by Robin Milner, originator of the pi-calculus. It is run in collaboration by Wil van der Aalst, Rob van Glabbeek, Keith Harrison-Broninski, Robin Milner and Roger Whitehead. The membership (current size 62) includes people working in academia, for software companies and as part of standards bodies. The aims of the group, as agreed at the meeting, are two-fold.

The first aim is to put existing theoretical work to use in enhancing the quality of commercial process software. As a mechanism for this, we will help to provide a formal underpinning for mainstream process modelling languages and notations (**Business Process Execution Language** *aka* **BPEL** for machine workflow, **Choreography Description Language** *aka* **CDL** for machine interaction, **Role Activity Diagrams** *aka* **RADs** for human-driven processes, and so on) via the application of established formal techniques (Petri nets, pi calculus, Z notation, and so on). We aim to develop viable semantics for mainstream process modelling, and in so doing may be able to contribute usefully to the development of practical techniques. Group members include active participants in the committees responsible for the standards concerned, so the necessary communication channels are already in place.

The second aim is to further our scientific understanding of process modelling, and share the insights gained with the business community. As a mechanism for this, we are building a library of *challenges*—process examples, described in plain English text. Each group member is encouraged to model the challenges using techniques in which they are expert. By so doing, we hope not only to discover the respective strengths and weaknesses of different process modelling methods, but to develop *universal patterns for process modelling*—a catalogue of approaches, each applicable to particular situations. The initial set of challenges and solutions has already given rise to further more complex variants, which suggests to us that the challenge mechanism is a promising heuristic.

A full report of the Eindhoven meeting, based on the papers given and observations made by attendees, is in preparation, along with a manifesto for the group, which expands on the aims described above to provide a long-term basis for our work. Those interested in joining the group should contact Roger Whitehead (rgw@office-futures.com) or Keith Harrison-Broninski (khb@rolemodellers.com). Please note that membership is open not to organizations or committees, but to *individuals* with proven interest and expertise in process modelling, regardless of their professional affiliation.