Queensland University of Technology

Faculty of Information Technology

Business Process Management Group

Annual Report 2006

Impressum

Business Process Management Group
Queensland University of Technology
Faculty of Information Technology
Level 5 / 126 Margaret Street
Brisbane Qld 4000, Australia
www.bpm.fit.qut.edu.au

Preface

2006 has been another amazing year. At the beginning of the year, we adopted two key priorities:

1. *To enhance awareness of the BPM group's capabilities and reputation.*
2. *To improve the synergies between the activities within the group.*

Looking back at this year, we can confidently state that we made substantial progress in both areas.

First, we were able to further enhance our reputation as one of the world's leading BPM research entities. This annual report provides numerous examples of the national and international recognition of our group in both the academic landscape as well as BPM community vendors and users. One of our most prestigious outcomes in 2006 was being chosen to host the 5th International Conference on Business Process Management (BPM 2007). This conference series is considered to be a premier event in its field and BPM 2007 will be the first time the conference will be held outside Europe.

Second, we developed an overall team culture in which the separation between our activities in business process management and in process execution technology was more seamless than it was at the beginning of the year. We see a wide range of collaborations between various researchers in our group and this is a main pre-requisite in order to benefit from our group size. This true structure of a networked organisation provides us with the required flexibility and density to conduct a wide range of multi-facet projects.

We believe that we are well-prepared for Australia's Research Quality Framework (RQF) initiative in both the dimensions of quality and impact.

In terms of research quality, we are proud to state that in 2006 we were able to successfully publish papers at the most prestigious international conferences in our area such as CAiSE, BPM, ER and ICIS. Furthermore, we published articles in leading journals such as Information Systems, Decision Support Systems, European Journal of Information Systems, and Data and Knowledge Engineering.

With regards to research impact, we are equally well prepared with a long list of established industry collaborations. 2006 saw the first use (that we know of) of the YAWL system in a production environment. The BPM maturity model has been applied to one of the largest mining companies in the world and we delivered a series of BPM seminars to a number of organisations as part of QUT's Continuous Professional Education Program (CPE). The testimonials in this report provide further evidence of our numerous industry interactions.

Overall, 2006 has been an excellent year and we are very grateful to all the contributions that have been made to this success.

Michael Rosemann & Arthur ter Hofstede
Brisbane, March 2007

Overview of the BPM Group

Business Process Management (BPM) continues to be the number one business priority for CIOs internationally as stated by a Gartner Group report in January 2007. BPM has reached maturity as a discipline in its own right and attracts substantial interest from a fast growing community. It now receives the attention of senior management, who increasingly view BPM activities as an important enterprise-wide aspect of their organisations. The set of related methods and tools has significantly advanced and now is consolidated under the umbrella term 'Process-aware Information Systems'. As a research topic, BPM combines a variety of disciplines and research streams including business, management science, requirements engineering, conceptual modelling, service-oriented architectures and software engineering - just to name a few.

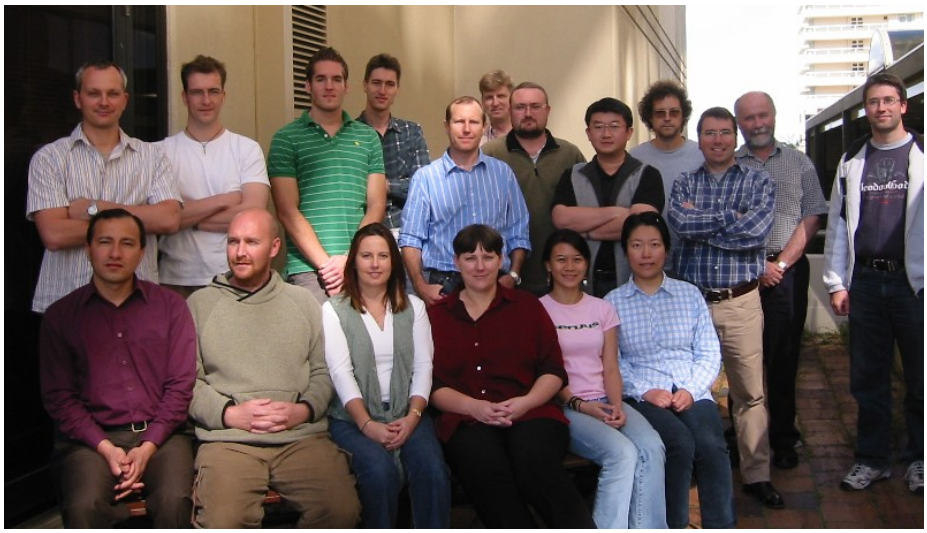
QUT is one of the few universities in the world with a research group dedicated to Business Process Management. It is one of the fastest growing research groups with impressive academic achievements, significant third-party funded research projects and major industry linkages. The BPM Group at QUT is a vibrant research team consisting of more than 40 members with a variety of expertise appropriately reflecting the different facets of BPM. The team comprises of Professors, Associate Professors, a Research Fellow, further academic staff, a number of international Postdoctoral researchers, research assistants, international visitors and research students (PhD, Masters, Honours).

One of the core strengths of QUT's BPM group is its close links with national and international thought leaders in this domain. We are delighted with the commitments made to our research group by our Adjunct Professors Prof. Iris Vessey, Prof. Wil van der Aalst, TU Eindhoven, The Netherlands, and Prof. Lutz Heuser, Vice President SAP Research, Karlsruhe, Germany. Together with the Technical University of Eindhoven, we form the BPMCenter.org, the largest worldwide virtual community of BPM researchers. Further close collaborations exist with the Stevens Institute of Technology (USA), the European Center for Information Systems Research (ERCIS), Monash University and the University of New South Wales.

The BPM research group is involved in a number of large third-party funded research projects. Among others, we are a core component within the first ARC Centre of Excellence at QUT. As part of the ARC Research Network Enterprise Information Infrastructure, a team of QUT researchers has been involved in a global study on the major issues of Business Process Management. Three large ARC Discovery projects are being conducted within the BPM Group. Furthermore, the group is engaged in six ARC Linkage projects with industry.

In alignment with QUT's branding as a university for the real world, the research of the BPM Group is very much grounded in practical problems and requirements. Through the quarterly BPM Round Table, we stay in touch with some of the largest Australian organisations across a number of industries.

Members of the BPM Group



The BPM Group at QUT is a vibrant research team consisting of more than 40 members who have a broad spectrum of expertise in business, information systems and computer science. Below is an overview of the BPM group team members, which consists of two program leaders, academic staff, adjunct professors, research students, research assistants, post doctorates, and associated members.

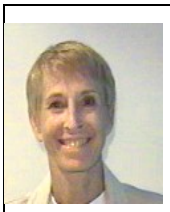
The **Leaders of the BPM Group** bring complementary expertise in the two main facets of Business Process Management. While Professor Michael Rosemann's interest is focused on issues related to process management and business process modelling, Assoc. Prof. Arthur ter Hofstede's interests lie in the areas of workflow modelling and process execution.

	**Professor Michael Rosemann** Phone: +61 (0)7 3138 9473 Email: m.rosemann@qut.edu.au	BPM Maturity BPM Governance Business Process Modelling BPM and Enterprise Systems
	**Assoc. Prof. Arthur ter Hofstede** Phone: +61 (0)7 3138 9474 Email: a.terhofstede@qut.edu.au	Workflow Modelling Process Execution Workflow Management Systems E-Services

A number of **academic staff members** are involved in our BPM Group.

	Assoc. Prof. Marlon Dumas Email: m.dumas@qut.edu.au	Business Process Management Enterprise Application Integration Service-Oriented Architecture Model-Driven Architecture
	Dr David Edmond Email: d.edmond@qut.edu.au	Service Description Workflow Modelling
	Assoc. Professor Glenn Stewart Email: g.stewart@qut.edu.au	Enterprise Systems Implementation Success Technology Innovation Business Process Modelling Enterprise Architectures BPM Maturity Business-IT Alignment

In addition to our internal staff members, we significantly benefit from the contributions of three **Adjunct Professors**.

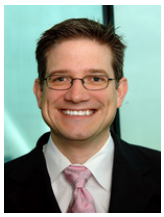
	**Prof. Iris Vessey** QUT & University of Queensland	Cognitive fit in the design and development of information systems the role of the application domain in systems development management and organisation of Enterprise Systems
	**Prof. Wil van der Aalst** TU Eindhoven, The Netherlands	YAWL Workflow Patterns Next-Generation Reference Models
	**Prof. Lutz Heuser** Vice President SAP Research and Chief Development Architect, SAP Germany	Modelling in the Large Configurable Reference Modelling Service Ecosystems

Visitors to the BPM Group

Assoc Prof Pall Rikhardsson from the Department of Accounting, Finance and Logistics, The Aarhus School of Business Fuglesands, Denmark, arrived in Australia in January 2006 and spent four months at QUT. Pall worked with representatives from the BPM Group and from QUT's Faculty of Business, as well as Prof Peter Green from The University of Queensland on issues related to compliance management. A focus of his research was on the link between business process and control processes. A series of interviews with organisations such as NAB, CBA and Rio Tinto were conducted in February and March. This work is linked to our research on modelling risks as part of business processes. Joint publications summarised the outcomes of this effective collaboration.

Prof Wil van der Aalst from Eindhoven University of Technology, The Netherlands, and Adjunct Professor at QUT visited our research group in January and in August. Prof van der Aalst is a regular visitor to QUT and is involved in a substantial number of collaborative research projects (including two ARC Discovery projects). During his visits, he worked with members of the BPM group in areas such as configurable reference process models, workflow exception handling, workflow patterns, YAWL, and modelling support for process interaction.

Dr Michael zur Muehlen from the Stevens Institute of Technology, Hoboken, NJ, USA, visited our group in August. Michael gave a presentation at the 4th Australian Process Days conference in Sydney and contributed as a Partner Investigator to the ARC Linkage Modelling in the Large including a presentation at SAP. Michael met a number of our research students and we made substantial progress in our joint research on risk-aware process modelling. Our BPM Group has a long-standing relationship with the Stevens' Center of Business Process Innovation. In return, BPM Group members also visited Stevens this year (Michael Rosemann in February and Wasana Bandara in December). Jan Recker will visit Stevens for four months in 2007 as part of his PhD studies.



Prof Lutz Heuser, Head of SAP Research and Adjunct Professor at QUT, visited QUT for one week in November. This visit was in conjunction with the 5th Anniversary celebrations of SAP Research here in Brisbane. During his visit, we provided Prof Heuser with an updated on the status of our SAP-funded projects. Prof Heuser also took part in the successful interview for the new CRC Smart Services.

"For SAP Research working with QUT´s BPM group means collaborating with world-class researchers who are driven by high professionalism, research excellence and a sound knowledge of our industry. Brisbane shows the highest concentration in BPM worldwide and attracts the global BPM research community; this will impressively be demonstrated with BPM 2007 that for the first time ever will take place outside of Europe and is organised by QUT seeing SAP as the main conference partner. Professors and students at QUT`s BPM group are pro-active, come up with innovative ideas and leverage research results for SAP in an excellent way. Joint US patents, papers, ARC Linkage projects and the Smart State Fellowship of Marlon Dumas are only some of the highlights to be mentioned. SAP Research always strives to find the most outstanding partners in the academic world. We certainly met our goal in the case of QUT with its Faculty of Information Technology."

A/Professor Karsten Schulz
Vice President Research, Brisbane

The QUT internal members of the BPM Group in 2006 are listed below.

Name	Position
Stephen Milliner	Lecturer
Chun Ouyang	Post-Doctorate
Boris Wyssusek	Post-Doctorate
Johannes Zaha	Post-Doctorate
Lindsay Bradford	Senior Research Associate
Stephan Breutel	Senior Research Assistant
Tore Fjellheim	Senior Research Assistant
Michael Adams	PhD Student/Lecturer
Wasana Bandara	PhD Student/Lecturer
Craig Huxley	PhD Student/Lecturer
Moe Wynn	PhD Student/Lecturer
Lachlan Aldred	PhD Student/Research Assistant
Guy Redding	PhD Student/Research Assistant
Tonia de Bruin	PhD Student
Islay Davies	PhD Student
Mitra Heravizadeh	PhD Student
Marcello La Rosa	PhD Student
Justin O'Sullivan	PhD Student
Jan Recker	PhD Student
Nick Russell	PhD Student
Hui Min (Cherri) Tan	PhD Student
Thomas Hettel	PhD Student
Kenneth Wang	PhD Student
Martin Graham	Masters Student
Yuan Ren	Masters Student
John Zimmerman	Masters Student
Peter Ansell	Honours Student
Adam Hearne	Honours Student
Ignatius Ong	Honours Student
Christian Kluge	Research Assistant
Jessica Prestedge	Research Assistant
Stefan Seidel	Research Assistant
Christian Flender	Occupational Trainee
Florian Foster	Occupational Trainee
Johannes Lux	Occupational Trainee
Christoph Riedl	Occupational Trainee
Felix Mueller-Wienbergen	Occupational Trainee

Post-Graduate Students in the BPM Group

Globally QUT's BPM Group has one of the largest pools of post-graduate students exploring BPM-related research questions. Many of the PhD students are working on third party funded research projects and are part of larger research initiatives. Most of the full-time PhD students are located at 126 Margaret Street, Brisbane (pictured on the right), in an environment which facilitates concentrated research work as much as open and effective communication. Our post-graduate students' work covers all facets of the business process lifecycle. Below you will find all of the post-graduate students who were active members of the BPM Group in 2006, the title of their research, their supervisory team, their expected completion date, and an abstract of their research.

PhD Students

Name: Michael Adams
Email: m3.adams@qut.edu.au
Title: *Facilitating Dynamic Flexibility, Evolution and Exception Handling for Workflows*
Principal Supervisor: Assoc. Prof. Arthur ter Hofstede
Associate Supervisors: Dr. David Edmond and Prof. Wil van der Aalst
Expected Completion: February 2007

Abstract: Workflow management systems (WfMS) are used to configure and control structured business processes from which well-defined workflow models and instances can be derived. However, the proprietary process definition frameworks imposed by WfMSs make it difficult to support (i) dynamic evolution (i.e. modifying process definitions during execution) following unexpected or developmental change in the business processes being modelled; and (ii) process exceptions or deviations from the prescribed process model at runtime.

This research re-examines the fundamental theoretical principles underpinning workflow technologies to derive and deliver the implementation of a service that provides dynamic flexibility, evolution and exception handling in workflows based, not on proprietary frameworks, but on accepted ideas of how people actually work. The "Worklet Service" uses a Service Oriented Architecture to provide an extensible repertoire of self-contained processes that are dynamically selected at runtime based on the context of the particular work instance. The service is extremely adaptable and multi-faceted, and allows a designer to provide tailor-made solutions to runtime process selections and exceptions.

Name: Lachlan Aldred
Email: l.aldred@qut.edu.au
Title: *Fundamentals of Business Process Integration*
Principal Supervisor: Assoc. Prof. Arthur ter Hofstede
Associate Supervisor: Assoc. Prof. Marlon Dumas
Expected Completion: September 2007

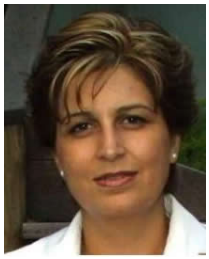
Abstract: Through extensive modelling, development, and surveys, we have discovered a set of coupling integration patterns. These build on an award winning paper from 2005, and are documented in an article we submitted to a journal (currently under review). We have also built a prototype that hopes to address the myopic approaches to defining and deploying distributed business processes. Our surveys of state of the art BPM solutions and studies of patterns have revealed a new set of concerns that are (a) not adequately addressed by existing middleware solutions, (b) not yet able to be captured at the BPM layer by a suitable set of communication abstractions. Our proposal currently targets the "glue" that would be needed to join these two layers together to improve and extend communication between distributed business processes.

Name: Tonia de Bruin
Email: t.debruin@qut.edu.au
Title: *Business Process Management Maturity*
Principal Supervisor: Prof. Michael Rosemann
Associate Supervisor: Assoc. Prof. Glenn Stewart
Expected Completion: March 2008

Abstract: Organisations recognize the need for an increased process orientation and require appropriate frameworks, which help to scope, evaluate and progress their business process management (BPM) initiatives. This is evidenced by the plethora of emerging models that attempt to measure BPM maturity and/or capability. Despite their increasing number there are many issues with existing models including: a lack of a strong theoretical foundation; limited empirical testing; narrow scope; and a lack of support from a rigorously developed assessment instruments. This research uses a multi-method approach to address these issues. Initial efforts are focused on the development of a holistic, theoretically sound, rigorously developed and tested BPM maturity model. The proposed model leverages existing BPM knowledge and incorporates contemporary BPM thinking using a combination of research methods including literature review, the Delphi technique, case studies and embedded surveys. Furthermore, whilst there has been significant research in the BPM domain, little has occurred with respect to developing BPM theory. As the BPM maturity model is designed to assess the progression of BPM practices it provides a solid platform from which to further explore how BPM evolves within organisations. As such, this research will aim towards a theory on the evolutionary path/s of BPM within organisations.

Name: Islay Davies
Email: ig.davies@qut.edu.au
Title: *An Ontological Evaluation of ARIS Using a Meta Model Mapping Approach*
Principal Supervisor: Prof. Michael Rosemann
Associate Supervisors: Assoc. Prof. Marlon Dumas and Prof. Peter Green (UQ)
Expected Completion: August 2008

Abstract: Integrated process modelling techniques, such as those defined within ARIS and UML, are used in many management and IT projects to conceptually define the business processes of an organisation. Several development tools contain these techniques, however, anecdotal evidence indicates many shortcomings – for example, the inability to model business rules and the ambiguity in the meaning of some symbols provided within the grammars. Furthermore, the range of modelling techniques in existence, and frameworks that attempt to provide a platform for their comparison, indicate the lack of a theoretical foundation from which these modelling techniques are developed. The objective of this research is, therefore, to facilitate the improvement and development of process modelling grammars by performing an ontologically-based evaluation and comparison of the process modelling techniques within ARIS and UML, using a meta-model approach, and to provide suggestions for improvements. In order to achieve this objective, the study involves developing a meta-model mapping methodology to facilitate the comparison of modelling technique constructs to ontological constructs; and empirically testing the findings of the ontological evaluations. To date, the ontological analysis of ARIS has been conducted. This has been followed by semi-structured exploratory interviews with a significant number of users of ARIS to gain some insights about the actual 'experiences' of modellers using the tool and to further inform hypotheses development. A second round of interviews is planned to empirically test the propositions.



Name: Mitra Heravizadeh
Email: Mitra.Heravizadeh@gbst.com
Title: *Towards Improved Decision Support for Creative Tasks*
Principal Supervisor: Dr. David Edmond
Associate Supervisor: Assoc. Prof. Arthur ter Hofstede
Expected Completion: December 2007

Name: Thomas Hettel
Email: t.hettel@student.qut.edu.au
Title: *Model Round-Trip Engineering*
Principal Supervisor: Prof Kerry Raymond
Associate Supervisor: Assoc Prof Marlon Dumas and Dr Michael Lawley
Expected Completion: July 2009

Abstract: Developing a software system with a model centric approach like Model-Driven Architecture involves a large number of different models at different abstraction levels. These models are usually created by domain experts and are specific to a certain domain. Using model transformation, these models can be easily transformed into other, more specific models, closer to implementation. In the BPM context, business analysts design business process models using a high-level modelling language such as BPMN (Business Process Modeling Notation). These models can then be automatically transformed into another language, e.g., BPEL (Business Process Execution Language), which is more suitable for the execution of the modelled process. If changes then have to be made to the implementation, they cannot be easily reviewed by the original designer of the process as he might not be familiar with the implementation language. Model Round-Trip Engineering aims at solving this problem by reversing the original transformation so that changes to the target model (e.g., BPEL) can be reflected in the source model (e.g., BPMN). This results in a tighter integration of domain experts in the development process and makes it easier to review changes in the implementation.

Name: Marcello La Rosa
Email: m.larosa@qut.edu.au
Title: *Configurable and Executable Reference Process Models*
Principal Supervisor: Assoc. Prof. Marlon Dumas
Associate Supervisor: Assoc. Prof. Arthur ter Hofstede
Expected Completion: November 2008

Abstract: A reference process model is a model of day-to-day operations in a given domain. Reference process models are intended to be configured in a specific context, leading to individualized process models. The benefits of configuring reference process models include reduced modeling effort and increased reuse of proven practices. Reference process models currently lack a representation of configuration alternatives, configuration decisions, and relationships between these decisions and alternatives. Previous proposals suffer from various limitations. Firstly, the configuration of a process model in these approaches requires that the involved stakeholders have to have a thorough understanding of both the application domain and the process modeling notation. Secondly, these approaches focus on control-flow aspects of process models, oversimplifying other aspects such as the data and resources upon which the processes rely. The proposed research aims at addressing these shortcomings by designing, formalizing and validating a configuration framework that will incorporate a questionnaire-based approach to facilitate the configuration of reference processes by domain experts. The information gathered from these questionnaires will then be mapped to variants of the reference process model. The result will be a process model that can be executed using a workflow management system such as YAWL.

Name: Jan Recker
Email: j.recker@qut.edu.au
Title: *Acceptance of Modelling Grammars and the Continuance Decision*
Principal Supervisor: Prof. Michael Rosemann
Associate Supervisors: Assoc. Prof. Marlon Dumas and Prof. Peter Green (UQ)
Expected Completion: March 2008

Abstract: This research studies the impact that representational capabilities have on the decision of a user to continue to use a conceptual modelling grammar. This study builds on, and converges, three established IS theories, namely the Technology Acceptance Model, Expectation-Disconfirmation Theory and the Bunge-Wand-Weber Representation Model in the development of a theoretical model designed to measure the relevance of representational capabilities of modelling grammars to the explanation and prediction of the continuance decision.

The theoretical model has been designed via conceptual studies and semi-structured interviews and is being tested by means of two web-based surveys measuring the hypothesized constructs and relationships with two grammars, (a) an established grammar, and (b) a grammar in the period of early adoption of and exposure. The study uses the cases of (a) the widespread EPC grammar, and (b) the newly proposed BPMN grammar, both of which are considered examples of high practical relevance to conceptual process modelling practice.

Name: Guy Redding
Email: g.redding@qut.edu.au
Completing: PhD
Title: *Reconciliation of Activity-centric and Business Object-centric Approaches to Business Process Modelling*
Principal Supervisor: Assoc. Prof. Marlon Dumas
Associate Supervisor: Assoc. Prof. Arthur ter Hofstede
Expected Completion Date: December 2008

Abstract: Business process modelling is a crucial activity for organisations striving to leverage their IT infrastructure in order to gain a competitive advantage in today's environment. By explicitly modelling their business processes, organisations are able to analyse, streamline and ultimately automate their day-to-day operations using a variety of workflow management systems, enterprise integration suites, and process-aware middleware platforms. A business process model may involve activities (eg: purchase order approval, shipping, payment) and business objects (eg: purchase orders, products, invoices). Depending upon which of these two approaches receives the primary emphasis, two alternative approaches to business process modelling can be distinguished; activity-centric or business object-centric. The aim of this research proposal is to make contributions towards unification of these two approaches by exploring and defining methods of reconciling the activity-centric and business object-centric approaches to business process modelling.

Name: Nick Russell
Email: n.russell@qut.edu.au
Title: *Foundation of Process-Aware Information Systems*
Principal Supervisor: Assoc. Prof. Arthur ter Hofstede
Associate Supervisor: Dr. David Edmond and Prof. Wil van der Aalst
Expected Completion: April 2007

Abstract: The increased focus that BPM has received is at odds with the relative maturity of tools and techniques that are actually available in the area. Despite the attention that it is receiving, there is a lack of commonly agreed fundamental concepts that are applicable to the domain and whilst there has been explosive growth in the variety of enactment tools that are available, there is a palpable lack of broadly adopted modelling and enactment standards for business processes. Moreover those notations that show signs of achieving widespread adoption (e.g. BPMN, BPEL, UML) are not based on a rigorous formal foundation but rather adopt a "committee-based" approach to standards development opportunistically absorbing concepts from a wide variety of domains without any consideration of the manner in which they might be integrated with existing language constructs or how they might actually be enacted in practical terms. This research project aims to develop an integrated conceptual foundation for the modelling and enactment of business processes that encompasses the control-flow, data, resource and exception-handling perspectives. It will provide both an informal and a formal view on this subject - identifying a series of generic, recurring BPM concepts in the form of patterns and proceeding to a rigorous formalization of these concepts based on an integrated Coloured Petri-Net model for process enactment.

Name: Hui Min (Cherri) Tan
Email: h.tan@qut.edu.au
Title: *Business Process Management Governance*
Principal Supervisor: Prof. Michael Rosemann
Associate Supervisor: Assoc. Prof. Glenn Stewart and Prof. Peter Green (UQ)
Expected Completion: August 2008

Abstract: Business Process Management has increasingly been adopted by organisations with the goal of achieving competitive advantage (performance) or compliance to regulatory environments (conformance). Traditional organisational governance has been observed to be insufficient for process-oriented management due to its classical focus on a functional hierarchy. There is a need for a better defined and coordinated approach towards BPM. The implication of this process perspective also means changes in the design and administration of individual roles and their responsibilities within the organisations in order to facilitate BPM. At the same time, the concept of governance has increasingly been applied to BPM within organisations as a coordinated approach towards BPM. While the body of knowledge on well-established governance types such as corporate governance or IT governance is substantial, current literature has only modestly started to explore the specific issues of BPM governance. This research will undertake the first step in conceptualising BPM governance. In particular, this research will identify how organisations can define and apply roles and responsibilities and relate these to decision-making processes. The research will be informed by insights from three longitudinal case studies and a proposed survey.

Name: Kenneth Wang
Email: kw.wang@qut.edu.au
Title: *Interface Adaptation for Conversational Services*
Principal Supervisor: Assoc. Prof. Marlon Dumas
Associate Supervisor: Dr Stephen Milliner
Expected Completion: March 2008

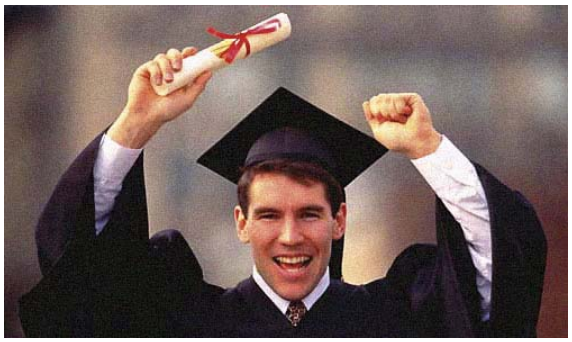
Abstract: The proliferation of services on the web is leading to the formation of service ecosystems wherein services interact with one another in ways not necessarily foreseen during their development or deployment. A key challenge in this setting is service mediation: the act of retrofitting existing services by intercepting, storing, transforming, and (re-)routing messages going into and out of these services so they can interact in unforeseen manners. This research addresses a sub-problem of service mediation, namely service interface adaptation, that arises when the interface that a service provides does not match the interface that it is expected to provide in a given interaction. This research focuses on reconciling mismatches between behavioural interfaces, i.e. interfaces that capture ordering constraints between interactions. It presents a declarative approach to service interface adaptation based on: (i) an algebra over behavioural interfaces; and (ii) a visual language that allows pairs of provided-required interfaces to be linked through algebraic expressions. These expressions are fed into an execution engine that intercepts, buffers, transforms and forwards messages to enact the adaptation logic.

Masters Students

Name: Yuan Ren
Email: y2.ren@student.qut.edu.au
Title: *The Integration of Workflow Technology and XBRL*
Principal Supervisor: Dr. David Edmond
Expected Completion: January 2008

Abstract: Workflow technology is widely used for improving productivity of organisations. Workflow management systems containing organisational knowledge are designed to assist the people in carrying out work processes.

The eXtensible Business Reporting Language (XBRL) can increase the speed of handling financial data, reduce the chances of error and permit automatic checking of information, but current workflow systems do not yet support XBRL. This research is to make the data perspective of workflow system, such as the business documents, local variables of workflow system and other objects which flow between activities, support XBRL format data.



Student Completions in 2006

2006 was a very successful year for students in the BPM Group completing their studies. Below you will find the details of all students who conducted at least their final seminar, along with their research topic and their supervisory team.

Name: Wasana Bandara
Email: w.bandara@qut.edu.au
Completed: PhD
Title: *Business Process Modelling Success Factors and Measures*
Principal Supervisor: Prof. Michael Rosemann
Associate Supervisor: Prof. Guy Gable
Final Seminar on 16 July 2006

Name: Lindsay Bradford
Email: l.bradford@qut.edu.au
Completed: PhD
Title: *Unanticipated Evolution of Web Service Provision Software Using Generative Object Communication*
Principal Supervisor: Dr. Stephen Milliner
Associate Supervisor: Assoc. Prof. Marlon Dumas

Name: Tore Fjellheim
Email: t.fjellheim@qut.edu.au
Completed: PhD
Title: *A Coordination Based Framework for Reconfigurable Mobile Applications*
Principal Supervisor: Dr. Stephen Milliner
Associate Supervisor: Assoc. Prof. Marlon Dumas

Name: Justin O'Sullivan
Email: Justin.O'SULLIVAN@suncorp.com.au
Completed: PhD
Title: *Towards a Precise Understanding of Service Properties*
Principle Supervisor: Dr. David Edmond
Associate Supervisor: Assoc. Prof. Arthur ter Hofstede

Name: Guy Redding
Email: g.redding@qut.edu.au
Completed: Masters by Research
Title: *A Preliminary Formalism for Variable Coupling in Agile Systems*
Principle Supervisor: Dr Stephen Milliner
Associate Supervisor: Dr Kim Elms

Name: Moe Wynn
Email: m.wynn@qut.edu.au
Completed: PhD
Title: *Semantics, Verification, and Implementation of Workflows with Cancellation Regions and OR-joins*
Principal Supervisor: Dr. David Edmond
Associate Supervisor: Assoc. Prof. Arthur ter Hofstede and Prof. Wil van der Aalst

Post-Doctorates in the BPM Group

There were three post-doctorate members in the BPM Group in 2006. In the following section, we provide a brief profile of each of these members, which details their PhD, their work within the BPM Group and what they like about working in the BPM Group. We are excited about the fact that as at March 2007 we have already made three more appointments in 2007.

Name: Dr Johannes Maria Zaha

Email: j.zaha@qut.edu.au

Year completed PhD: 2005

University where completed PhD: University of Augsburg, Germany

PhD title: *Automated Compatibility Tests for Business-Related Aspects of Software Components*

Project with the BPM Group: Design a language for service behaviour modelling, formalize the semantics of the designed language and design and implement a toolset to support the development of services based on the language.

Length of time at QUT: 2005-2006

What you like about working in the BPM Group: I like working in the BPM Group because the people in the group have lots of different backgrounds and thus the group provides an interesting environment, both from an academic and personal point of view.

Name: Dr Chun Ouyang

Email: c.ouyang@qut.edu.au

Year completed PhD: 2004

University where completed PhD: University of South Australia, Adelaide

PhD title: *Formal Specification and Verification of the Internet Open Trading Protocol using Coloured Petri Nets*

Project with the BPM Group: I'm working on BABEL (Expressive Comparison and Interchange Facilitation between Business Process Execution Languages).

Length of time at QUT: 2 years

What you like about working in BPM Group: I appreciate the opportunities to work with the world leading academia in the Group. I also enjoy the very open, active and cooperative working environment provided by the Group.

Name: Dr Boris Wyssusek

Email: b.wyssusek@qut.edu.au

Year completed PhD: 2004

University where completed PhD: Technical University Berlin

PhD title: *Methodological Aspects of Organisational Modelling in Business Computing – A Sociopragmatic-Constructivist Approach* (in German)

Project with the BPM Group: UMOD: Enterprise Systems (ES) packages are software systems that seek to provide their organisational users with comprehensive, integrated support for their information system needs. The development, implementation, operation, support, maintenance, and upgrade of enterprise systems is a multi-billion dollar industry. This industry is replete with stories of high-cost problems. Many of these problems arise because the business models embedded within ES packages do not align with the needs of their users. This project develops a methodology and measures to evaluate how well the business models embedded in an ES package meet user needs.

Length of time at QUT: December 2004 - May 2006

What you like about working in BPM Group: The mixture of people from different walks of life and their cultural backgrounds.

RIO TINTO ALUMINIUM

"There have been many mutual benefits working with QUT's BPM Group. The group provides excellent networking and feedback opportunities to enable our staff to keep abreast of the latest thinking in BPM and related subjects. Currently Rio Tinto Aluminium is participating in a Rio Tinto wide roll out of common businesses processes supported by a global SAP environment. The BPM maturity work has given some real insights as to where we are on the maturity curve, and what the business needs to do to move our desired end state. It is our intent to continue participating in BPM maturity model work as we continue the global roll out of common processes. Global BPM governance is also a key opportunity that I expect we will progress this year."

Glenn Chapman
CIO Comalco

Senior Research Associates & Senior Research Assistants in the BPM Group

Name: Dr Lindsay Bradford

Title: Senior Research Associate

Email: l.bradford@qut.edu.au

Year completed PhD: 2006

University where completed PhD: Queensland University of Technology

PhD title: *Unanticipated Evolution of Web Service Provision Software Using Generative Object Communication*

Project with the BPM Group: Business Process Management for the Creative Industries.

Length of time at QUT: 4.5 years

What you like about working in the BPM Group: Working with intelligent people and interesting problems.

Name: Dr Tore Fjellheim

Title: Senior Research Assistant

Email: t.fjellheim@qut.edu.au

Year completed PhD: 2006

University where completed PhD: Queensland University of Technology

PhD title: *A Coordination Based Framework for Reconfigurable Mobile Applications*

Project with the BPM Group: Currently I am working on the YAWL initiative, but during my PhD I was working in collaboration with SAP.

Length of time at QUT: 3.5 years

What you like about working in the BPM Group: The people are always friendly, cakes on birthdays … oh and interesting research projects.

BPM Group Meeting Activities for 2006

www.bpm.fit.qut.edu.au/seminars

The BPM Group meets regularly on Thursdays between 10am and 12pm to discuss issues of interest for the group. 2006 saw the introduction of an increasing number of industry presentations. This has become an important mechanism to ensure the relevance of our research and provides an essential channel of interactions with local organisations. The following table shows the details of the BPM meetings held in 2006. Please contact Dr Chun Ouyang (c.ouyang@qut.edu.au) for further information and subscription to the seminar list.

Date	Speaker	Topic
2 March	Michael Rosemann & Arthur ter Hofstede	The BPM Group in 2006
9 March	Florian Forster	Process Improvement Patterns
10 March	Tonia de Bruin	BPM Maturity (Confirmation)
23 March	Stephan Breutel	Process Simulation
5 April	Kenneth Wang	Interface Adaptation for Conversational Service
20 April	Christian Kluge	The Value Proposition of an Enterprise Architecture
4 May	Stephan Breutel	Support Vector Machines
	Johannes Zaha	Service Behaviour Modelling
11 May	Ignatius Ong	LDAP
18 May	Nick Russell	Workflow Exception Handling
	Jan Recker	Model-driven Enterprise Systems Configuration
1 June	Boris Wyssusek	Issues in Conceptual Modelling
16 July	Wasana Bandara	Process Modelling Success Factors and Measures (Final Seminar)
20 July	BPM 2007 Committee	BPM 2007 Inaugural Meeting

Date	Speaker	Topic
27 July	Christine Stephenson, Qld Department of Public Works	Pattern-Based Process Modelling
3 August	Casper Stoel, Pallos Athena, NL	From workflow to case handling: the next step ... and when to take it
	Lars Algermissen, ERCIS, Muenster, Germany	"PICTURE" - A joint research/industry project
24 August	Jamie Cornes, Suncorp	BPM at Suncorp - bridging the business to technology divide - one byte at a time.
7 September	Stefan Seidel & Johannes Lux	BPM for the Creative Industries
5 October	Christian Flender & Peter Ansell	Context-Aware Business Processes
19 October	Chun Ouyang & Marlon Dumas	From BPMN Process Models to BPEL Web Services
2 November	David Edmond	XBRL: The Relational Model Strikes Back
30 November	Marco Fargnoli, Smiths-Aerospace	Getting BPM Started: Releasing the full potential of our business processes
14 December	Sonia Lippe, SAP	Training Session for ATHENA

Awards and Recognitions in 2006

In 2006 two members of the BPM Group were promoted through QUT's internal process. **Dr Marlon Dumas** was promoted to **Associate Professor** and **Ms Moe Wynn** was promoted to **Lecturer**.

We were able to secure further industry-funded scholarships including a **PhD top-up scholarship** in the area of BPM Governance worth $12,000 over two years and funded by Ergon Energy. **Tonia de Bruin** received a **PhD scholarship** for the same amount from Rio Tinto for her work on a BPM maturity model.

Jan Recker received a **top-up scholarship** worth $3,000 from the BPM Group related to his Business Process Modelling Notation (BPMN) research.

The **2006 BearingPoint Award** for the best thesis in the area of conceptual modelling of business information systems went to **Jan Recker**. The winner received €2,500. The topic of Jan's thesis is "*Methods for Evaluating Conceptual Modelling Languages – A Comparative Analysis*".

The paper *"GPSL: A Programming Language for Web Service Implementation"*, written by **Dominic Cooney, Marlon Dumas, and Paul Roe**, received the **best "software science" paper award** at the European Joint Conferences on Theory and Practice of Software, that was held in Vienna, Austria on 25-31 March 2006.

The paper **"***How do practitioners use conceptual modelling in practice?*" by **Islay Davies, Peter Green (UQ), Michael Rosemann, Marta Indulska (UQ)** and **Stan Gallo** (UQ) has been the **most downloaded paper** in the journal *Data and Knowledge Engineering* between July and September 2006. The paper "*Mining Configurable Enterprise Information Systems*" by **Monique Jansen-Vullers, Wil van der Aalst** and **Michael Rosemann** was the second most downloaded paper in *Data and Knowledge Engineering* between January and March 2006.

"Ergon Energy has continued it's association with the BPM Group within QUT's IT Faculty as a means of staying abreast of current and emerging trends within BPM, including the Australian BPM Roundtable and practical, applied post graduate research."

Michael Genrich
Group Manager - Process

Consulting and Professional Education Services

www.bpm-training.com

At the beginning of the year we delivered comprehensive **consulting services** related to the design of large and intuitive process models for **Ergon Energy** in Brisbane. This very successful and comprehensive work was conducted by Samia Mazhar and Jennifer Gunadi between January and March.

We provided 10 days of **consulting services** related to the design of business process models to the **Australian Film, Television and Radio School (AFTRS)** in June in Sydney. The main resource on this project was Johannes Lux.

In addition to these consulting services, we saw an incredible increase in the demand for our BPM in-house seminars. These seminars are packaged as 2 to 7 day courses and delivered to 10-16 participants from an organisation.

Between 23 May and 11 July, we conducted a **five day in-house BPM seminar** for 12 representatives from **RoadTek**, Brisbane. This very successful seminar covered an introduction to BPM, a two day BPMN course, business process lifecycle management, case studies and various assessments. The picture below shows the participants of this course and three of the four involved BPM Group members (Marlon Dumas, Jan Recker, Michael Rosemann - Tonia de Bruin is absent).

RoadTek Main Roads

"RoadTek has benefited significantly from its association with QUT's BPM Group. QUT has provided excellent training and professional advice and support in the development of RoadTek's BPM Architecture. The BPM Roundtable provides access to the industry's peer ideas and practices in an environment of shared learning and real world experiences."

Adrian Brown, Project Manager

In a similar way, between 31 October and 21 December, we delivered a **seven day BPM training course** to 12 representatives of the **Queensland Courts**, here in Brisbane. This event also included a full day on BPM maturity management and a more comprehensive introduction to business process lifecycle management. The picture below shows all participants and three of the four involved instructors (Marlon Dumas, Tonia de Bruin, Michael Rosemann; Jan Recker is absent), after receiving their certificates from FIT's Dean Professor Simon Kaplan.

"The BPM training has helped our staff to identify the links between processes across all Queensland court jurisdictions. It has also enabled us to assess the maturity of our organisation's BPM strategy and measure performance by capturing and quantifying processes. We share our experiences and gain further information about best practice through the BPM Group's affiliations with national and international academic leaders and industry groups. "

Jason Webb
Program Co-ordinator
Continual Process Improvement Program (CPIP)

On 1 and 2 November, **Michael Rosemann** conducted a **two day course on Business Process Management** for ten representatives of the **Australian Federal Police** in Canberra.

Furthermore, we started a **six day BPM training course** for the **Qld Department of Education** on 30 October with the last day delivered on 11 January.

On an international scale, BPM Group members were involved in two training seminars for Principal Architects of the Indian software company **Infosys**. A 10 day course was conducted between 19-30 June at the impressive Infosys campus in Mysore, India. Marlon Dumas, Michael Rosemann and Glenn Stewart delivered six highly appreciated training days as part of this seminar on topics such as Service-oriented Architecture, Business Process Management, Business Cases and IT Governance. After minor revisions, we also delivered this content to 29 Principal Architects in Fremont, California, USA, between 30 October and 10 November. The next training for Infosys is planned for June 2007 in Mysore, India.

The picture below shows the participants from the first training course at the Infosys Campus in Mysore, India.

One outcome of this training for Infosys has been a closer relationship between QUT's BPM Group and Infosys. Among others, we now participate in Infosys' InStep program and in November, two students started their internships on topics such as the *ROI of BPM* and *Meta Models for Reference Models* at Infosys in Bangalore and Pune. Infosys was also the industry sponsor of a FIT Dean's Breakfast on Business Process Management in September.

Infosys®
POWERED BY INTELLECT
DRIVEN BY VALUES

"We at SETLabs found a good synergy with QUT's BPM Group because of our similar research focus in the BPM space. In the short time that we have worked together, they have brought to the discussions many valuable insights based on extensive research on this subject. We also found their openness in exchanging ideas very helpful."

Subrahmanyam Goparaju
Infosys Technologies Limited
Vice President & Head
Software Engineering and Technology Labs (SETLabs)

Australian BPM Community of Practice

www.bpm-roundtable.com

"Queensland Rail (QR) will create value through delivering responsive, innovative, rail-based solutions for its customers and stakeholders. One of the key elements to achieve this mission is to have a strategic direction in place that focuses on providing a service of excellence hence the management of our business processes is of great importance to the organisation. QUT's BPM Group has a relationship with the BPM Community of QR where BPM concepts are discussed and tested in a 'real' business environment."

Gaby Doebeli, Process Design Adviser

The Australian Community of Practice (also known as the BPM Round Table), was established in August 2004 and is a forum of experienced BPM practitioners. It provides an open and honest platform for the exchange of experiences and knowledge in the field of BPM. It is aimed towards consolidating and enhancing the local body of BPM knowledge.

"QUT's BPM group is a rich source of information for tapping into the current trends in Business Process Management. Participation in the BPM Roundtable seminars allows me to enhance my skills as a BPM Practitioner by sharing knowledge with other BPM experts."

Christine Stephenson, Business Architect
Qld Government Chief Information Office

In 2006, this community became the national BPMG forum and is now jointly organised and chaired by QUT and BPMG. The list of participating organisations in the BPM Round Table discussions in 2006 included representatives from AMP, Australian Bureau of Statistics, Australian Federal Police, BPMG.org, Centrelink, Coles Myer, Commonwealth Bank of Australia, Connell Wagner, Corporate Link, CSC, DEST, Department of Defence, Energy Australia, Ergon Energy, Goldman Sachs, GWF, IP Australia, Ipswich City Council, Metcash, National Australia Bank, NICTA, OmniLab, Powerlink, RoadTek, Queensland Transport, Queensland Government ICT, Queensland Rail, QUT, Rio Tinto, Smiths Aerospace, Suncorp and Telstra.

There were four BPM round table meetings held in 2006. The first meeting took place on 2 February at Ergon Energy, Brisbane, and was on *"BPM Governance"*. The second meeting was conducted on 4 May at AMP in Sydney and covered the topic *"BPM and Culture"*. QUT was the host of the third meeting on 10 August which was focused on *"The Process of Process Management"*. The fourth meeting was on 16 November at George Weston Foods (GWF) in Sydney and explored the *"Value Proposition of BPM"*.

"I find the QUT's BPM Group is well led and organised. This provides confidence that outcomes will be realised instead of only discussed. It is important to have a group that is honest and open to discuss aspects with and this group fulfils this important need. This is a group I have confidence will achieve what they set out to do."

Elton Jubber, Senior Quality Manager
National Australia Bank, Melbourne

Research Grants

The BPM group has been very successful in acquiring grants to further our research. Listed below are the grants that were active in 2006.

ARC Centre of Excellence

The ARC has established the Centres of Excellence Scheme to create the scale and focus necessary to maintain and develop Australia's international standing in areas of research priority. These are highly prestigious research clusters and the application process is highly competitive.

The BPM Group is intensively involved in a Centre of Excellence which is managed by QUT's Institute for Creative Industries and Innovation (www.ici.qut.edu.au).

"ARC Centre of Excellence in Cultural and Media Industries"

Interim Director: Professor Stuart Cunningham (QUT, Creative Industries)
Investigators: Professor Michael Rosemann
Assoc. Prof. Arthur ter Hofstede
Budget for BPM Group: AUD $ 330,000 (2006-2009)

Summary: The ARC Centre of Excellence in Cultural and Media Industries drives the development of Australia's capacity to maximise the national economic and cultural benefits of digital content industries. It integrates research across a range of disciplines to develop new modes of access and distribution for user-led innovation. It will provide integrated, empirically grounded solutions to structural, conceptual and policy problems, during an exciting period when new technologies, end-user activism and semi-professional practices are challenging traditional models of production and consumption in the creative value chain. The Centre's research outcomes across six program areas will improve industry, government, education and creative services in Australia. The focus of the work within the BPM group will be on the development of an executable reference model for this industry.

ARC Research Network

Building on a strong platform of excellent research already selected for funding under the ARC's Discovery and Linkage programs, ARC Research Networks funded under this new program provide an environment supporting highly creative, interdisciplinary research that is not averse to risk taking, and which aims to move a field forward or creating exciting, novel research themes.

"Enterprise Information Infrastructure"

Network Convenor: Professor Maria Orlowska (UQ)

Investigators: Professor Michael Rosemann
Assoc. Prof. Marlon Dumas
Ms Wasana Bandara

Budget: AUD $3,200,000

Period: 2004-2009

Summary: The ARC Research Network in Enterprise Information Infrastructure (EII) targets a consolidated investigation into the comprehensive development and establishment of information infrastructures, with an emphasis on emerging advanced technologies and practices, for large-scale scientific and business organisations, government agencies and community groups. There are numerous research programs under this system, which include:

- computing infrastructure;
- data and knowledge management;
- enterprise centric computing;
- security, privacy and trust;
- vertical applications;
- technology adoption and impact; and
- service centric computing.

Members of the BPM Group are involved in the Enterprise Information Infrastructure network and provide the Chief Investigators for a task force on the *'Major Issues in Business Process and Service Management'*.

This project involves research partners from The University of Queensland and Curtin University. The outcomes of this research will be presented at the European Conference on Information Systems (ECIS 2007).

ARC Discovery

ARC Discovery grants support fundamental research by individuals or teams. The ARC Discovery schema is highly competitive with an average success rate of approx. 20-25 %. The BPM Group has currently three Discovery grants after being successful with one new proposal in 2006.

"Rapidly Locating Items in Distribution Networks with Process-Driven Nodes"

Grant Number:	DP0773012
Investigators:	Prof. Colin Fidge
	Assoc. Prof. Arthur ter Hofstede
	Assoc. Prof. Marlon Dumas
Budget:	$ 290,000
Period:	2007 - 2009

Summary: Safety-critical product recalls are a major public health issue in Australia. Recent extortion attempts involving poisoning of chocolate bars, paracetamol tablets and biscuits have demonstrated the urgent need for improved ways of locating commercial products that have been released into the community. Existing product recall tools are effective only within regulated manufacturing and warehousing facilities. This project will develop novel techniques for locating items in large-scale distribution networks driven by complex logistic processes. The outcomes of the project will make it easier to rapidly and accurately pinpoint product locations outside controlled facilities, thus contributing to both cost savings and public safety.

"Next-Generation Reference Process Models"

Grant Number:	DP0665480
Investigators:	Professor Michael Rosemann Assoc. Prof Arthur ter Hofstede Assoc. Prof. Marlon Dumas Professor Wil van der Aalst (TU Eindhoven, NL), PI A/Prof. Michael zur Muehlen (Stevens IoT, USA), PI
Members:	Adam Hearne (Hnrs) Jan Recker (PhD) Marcello La Rosa (PhD)
Budget:	$ 282,000
Period:	2006-2008

Summary: Business process modelling is a key tool for organisations striving to create efficiencies by leveraging their IT infrastructure. This project will develop techniques for increasing the productivity of business process analysts by allowing them to reuse as much as possible existing models rather than systematically designing new ones from scratch. Specifically, the project will develop and validate a language for designing highly configurable process models. This language will enable superior approaches to business process modelling and hence smarter use of information. This will place Australia at the forefront of developments in business process management: a crucial technology in today's global, dynamic and heterogeneous environments.

This project has already been very successful with accepted papers at the CAiSE conferences in 2006 and 2007.

"Expressiveness Comparison and Interchange Facilitation between Business Process Execution Languages"

Grant Number:	DP051092
Investigators:	Assoc. Prof Arthur ter Hofstede Assoc. Prof. Marlon Dumas Professor Wil van der Aalst (TU Eindhoven, NL), PI
Budget:	$ 240,000
Period:	2004-2006

Summary: Developments in the area of business process management are currently hindered by the plethora of diverse business process execution languages. This project will develop techniques for dealing with interoperability issues induced by this language heterogeneity. The project combines theoretical research, grounded in concurrency theory and workflow patterns, with pragmatic research focusing on languages supported by commercial tools. The outcome will be a framework for comparing the expressiveness of process execution languages and defining mappings between them. This will place Australia at the forefront of developments in business process management systems: a crucial technology in today's global, dynamic, and heterogeneous environments.

ARC Linkage Projects

ARC Linkage grants help support collaborative research projects between higher education researchers and industry. The BPM Group has six current grants under this system. In 2006, we were successful with one application in the area of service ecosystems. We also successfully completed an ARC Linkage project with Water Corporation this year.

"Service Ecosystems Management for Collaborative Process Improvement"

Grant Number:	LP0669244
Industry Partners:	SAP Australia (SAP Research, Brisbane) Queensland Government, Department of Public Works
Investigators:	Professor Michael Rosemann Assoc. Prof Marlon Dumas Prof Amanda Spink Prof Peter Bruza Dr Alistair Barros (SAP) Dr Paul York (Queensland Government)
Budget:	$ 259,000 from the ARC $ 120,000 from SAP $ 120,000 from Queensland Government
Period:	2007 - 2009

Summary: Streamlining cross-organisational processes based on service-oriented architectures is perceived as a natural way of increasing organisational performance. However, an overarching framework for nurturing the orderly development and deployment of service-oriented systems in large and highly compartmentalised organisations is missing. This project seeks to provide methods for consistent definition of services, design of user-centred service repositories, incentive and accountability structures for service governance, and efficient service discovery mechanisms in service-oriented systems. Among other outcomes, the project will lead to an overarching framework for enabling the formation of so-called service ecosystems, that is, service-oriented systems that grow up from independent initiatives, yet interact in seamless ways to support complex business processes. Though the focus will be on government processes, the project will generalise beyond this scope for a wider uptake of service ecosystems in other types of organisations.

"PASS: Personalised Adaptive and Semantics-driven Selection and Composition of Web Services"

Grant Number: LP0455394

Industry Partner: SAP Australia (SAP Research, Brisbane)

Administering Institution: University of New South Wales

Investigators: Dr Boualem Benahallah (UNSW)
Professor Paul Compton (UNSW)
Assoc. Prof. Marlon Dumas (QUT)
Dr Stephan Milliner (QUT)
Dr Julien Vayssiere (SAP)
Mr Murray Spork (SAP)

Budget: $ 142,000 from the ARC
$ 183,000 from SAP

Period: March 2005 – March 2008

Summary: Web services are the pillar of the new generation of Internet technologies. They provide standardized access to functionality that would otherwise be hidden inside enterprise information systems. As the existing base of web services expands, there is a need for techniques to select, configure, assemble, and coordinate web services to perform complex user tasks. This project will advance the fundamental understanding and know-how in this area by addressing three complementary research challenges: how to organise and search semantically rich service descriptions; select services with respect to flexible and personalized criteria; and coordinate services in an adaptive and context-aware manner.

"Reconciling Activity-centric and Business Object-centric Approaches to Business Process Modelling"

Grant Number: LP0562363

Industry Partner: SWS

Administering Institution: Queensland University of Technology

Investigators: Assoc. Prof Marlon Dumas
Assoc. Prof Arthur ter Hofstede
Mr Adrian Iordachescu (Partner Investigator, SWS)
Ms Jarka Sipka (Partner Investigator, SWS)

Budget: $ 72,444

Period: 2005-2008

Summary: Business process models are fundamental instruments for analysing and automating the operations of organisations. At present, the space of business process modelling techniques is characterised by fragmentation with various approaches striking different tradeoffs. Two major families of approaches can be distinguished: activity-centric and business object-centric. These approaches correspond to complementary viewpoints. We see great potential in creating a level of integration between them. Accordingly, the project will investigate the relative expressiveness of these approaches, identify incompatibilities and synergies, and design model transformations. This will establish a foundation for next-generation business process modelling tools.

"Using Measures of Ontological Distance to Evaluate the Alignment between Organisational Needs and Enterprise Systems Capabilities"

Grant Number: LP0454094

Industry Partner: SAP Australia (SAP Research, Brisbane)

Administering Institution: Queensland University of Technology

Investigators: Professor Michael Rosemann
Professor Ron Weber (Monash University)
Professor Iris Vessey, PI

Members Dr Boris Wyssusek (until 1 May 2006)
Dr Jayantha Rajapakse (from 2 January 2007)
Corinna Raduescu (UQ)
Matthias Lange

Budget: $ 188,474 from the ARC
$ 75,000 from SAP

Period: 2004-2007

Summary: Enterprise Systems (ES) packages are software systems that seek to provide their organisational users with comprehensive, integrated support for their information system needs. The development, implementation, operation, support, maintenance, and upgrade of enterprise systems is a multi-billion dollar industry. This industry is replete with stories of high-cost problems. Many of these problems arise because the business models embedded within ES packages do not align with the needs of their users. This project develops a methodology and measures to evaluate how well the business models embedded in an ES package meet user needs.

In 2006, we conducted a comprehensive ontological analysis of SAP's purchase order as an example for a mature business object. A longitudinal case study with Ipswich City Council provided deeper insights into the ES selection process. A number of interviews with SAP representatives and ES consultants and customers complemented the gathering of empirical evidence. Dr Jayantha Rajapakse from The University of Melbourne, will join the project team from 2 January 2007. He will be based at Monash University.

"Modelling in the Large"

Grant Number: LP0560417

Industry Partner: SAP Australia (SAP Research, Brisbane)

Administering Institution: Queensland University of Technology

Investigators: Professor Michael Rosemann
Professor Peter Green (UQ)
Professor Graeme Shanks (Monash)
Ms Wasana Bandara

Members Assist. Prof Michael zur Muehlen (Stevens Institute of Technology), PI
Dr Wasim Sadiq (SAP Research), PI
Sonia Lippe (SAP Research)
Ms Hui Min Tan (QUT)
Mr Jan Recker (QUT)
Corina Raduescu (UQ)
Malini Jayaganesh (Monash)

Budget: $ 230,000 from ARC
$ 90,000 from SAP

Period: 2005-2007

Summary: Business modelling supports a variety of approaches, which are currently of significant interest for Australian organisations. This includes business process management, risk management or Enterprise Architecture design. The trend to centralised and integrated business modelling projects leads to a high number of models, modellers, users, and modelling purposes. This phenomenon is called modelling in the large. The proposed research project explores the major issues within these projects and develops improved modelling techniques and project management approaches for large modelling initiatives. The outcomes will streamline the design, integration, maintenance and communication of models with a focus on Enterprise Systems.

In 2006, we made substantial progress in the main areas of investigation, i.e. BPM Governance, The Impact of Culture on BPM and the acceptance of different modelling techniques. The project progress has been presented to the industry partner in various seminars and a critical review by Prof Lutz Heuser, SAP, was conducted in November.

"Design of a Reference Methodology for Extended Enterprise Architecture"

Grant Number: LP0348712

Industry Partner: Water Corporation, Leederville, WA, Australia

Administering Institution: Queensland University of Technology

Investigators: Professor Michael Rosemann (QUT)

Members Mr Eddie Chalk (Water Corporation, Perth)
Mr Rainer Schreibehenne (Deutsche Telekom AG) in 2004
Ms Marit Schallert (QUT, now BP London) in 2004
Mr Christian Kluge (sd&m AG) in 2005/2006

Budget: $ 71,300 from the ARC
$ 25,000 from Water Corporation

Period: June 2003 - March 2006

Summary: Enterprises have nowadays a very critical perception of the actual benefits of Information Technology (IT). Significant investments in IT infrastructures have been made. However, in many cases no monetary benefits could be demonstrated. Enterprise Architectures provide a way to like the business and the IT perspective. This project aimed to develop an operational methodology with a solid theoretical foundation for the design of such Enterprise Architectures. The outcomes and the innovation of this project were an approach for process portfolio management, which can be used to harvest the comprehensive knowledge embedded in large Enterprise Architecture in the context of business decisions.

This project has been successfully completed in March 2006.

Smart State Fellowship

Smart State Fellowships support the Queensland Government's investment in leading edge research facilities by funding outstanding national and international researchers, working in leading Queensland based research teams. The BPM Group has one current grant in this schema.

"SAFAI: Model-driven and Service-oriented Architecture for Flexible Application Integration"

Administrating Institution: Queensland University of Technology

Investigator: Assoc. Prof. Marlon Dumas

Budget: $ 150,000 from Queensland Government
$ 105,000 from SAP
$ 45,000 from QUT

Period: December 2004 – November 2007

Summary: With the increasing reliance on software applications for the conduct of business, the need to integrate these applications with minimal effort and in short timeframes is becoming ever more evident. Concomitantly, model-driven and service-oriented architectures are emerging as effective paradigms for developing and interconnecting applications. This project aims at exploring the possibilities opened by the combined use of these two paradigms in order to achieve flexible application integration. Specifically, the project will devise new techniques for building integrated systems of applications in such a way that changes in business requirements can be rapidly and reliably propagated into changes in the system.

QUT-funded Projects

The BPM Group has one current grant under this system.

Case Studies in Business Process Management

Investigator: Professor Michael Rosemann

Budget: $ 25,000

Period: 2005-2006

Summary: The purpose of this project is to write a series of case studies on Business Process Management with national and international organisations. Each case study will explore a specific facet of BPM. These case studies will be used within various BPM research projects at QUT as well as within related units of our curriculum.

A case study of *'Process-based Compliance Management at Commonwealth Bank of Australia'* has been finished and is now widely used in our BPM training and available from the BPMG.org web page for download.

It is our intention to produce an entire book which will include a number of such case studies by the end of 2007. Many of the involved organisations are members of the BPM Round Table.

Publications

Throughout 2006, a number of high quality publications were released by members of the group including a number of journal papers and papers accepted at leading academic conferences. Furthermore, we published various technical reports and white papers for the wider distribution of our research findings.

Journal Articles

Barros, A. and Dumas, M. (2006). **The Rise of Web Service Ecosystems**. *IT Professional.* 8(5): 31-37. IEEE Computer Society.

Davies, I., Green, P., Rosemann, M., Indulska, M., Gallo, S. (2006). **How do Practitioners use Conceptual Modelling in Practice?** *Data and Knowledge Engineering.* 58(3): 358-380. Elsevier Science Publications.

Jansen-Vullers, M.H., van der Aalst, W.M.P., Rosemann, M. (2006). **Mining Configurable Enterprise Information Systems**. *Data and Knowledge Engineering.* 56(3): 195-244. Elsevier Science Publications.

Rosemann, M. (2006). **Potential Pitfalls of Process Modelling (Part A).** *Business Process Management Journal*, 12(2): 249-254. Emerald.

Rosemann, M. (2006). **Potential Pitfalls of Process Modelling (Part B).** *Business Process Management Journal*, 12(3): 377-384. Emerald.

Sewing, J.H., Rosemann, M., Dumas, M. (2006). **Process-Oriented Assessment of Web Services.** *International Journal of E-Business Research.* 2(1): 19-44. IDEA Group Publishing.

International Conferences

Adams, M., ter Hofstede, A.H.M., Edmond, D., van der Aalst, W.M.P. (2006). **Worklets: A Service-Oriented Implementation of Dynamic Flexibility in Workflows.** *Proceedings of the 14th International Conference on Cooperative Information Systems (CoopIS 2006),* Montpellier, France, October 29 – November 3. Vol 4275 of LNCS, Pages: 291-308. Springer Verlag.

Cooney, D., Dumas, M., Roe, P. (2006). **GPSL: A Programming Language for Service Implementation.** *Proceedings of the 9th International Conference on Fundamental Approaches to Software Engineering (FASE 2006),* Vienna, Austria, March 27-28. Vol 3922 of LNCS, Pages: 3-17. Springer Verlag.

Dumas, M., Spork, M., Wang, K. (2006). **Adapt or Perish: Algebra and Visual Notation for Service Interface Adaptation.** *Proceedings of the 4th International Conference on Business Process Management (BPM 2006),* Vienna, Austria, September 5-7. Vol 4102 of LNCS, Pages: 65-80. Springer Verlag.

Mendling, J., Recker, J., Rosemann, M., van der Aalst, W.M.P. (2006). **Generating Correct EPCs from Configured C-EPCs.** *Proceedings of the 2006 ACM Symposium on Applied Computing (SAC 2006),* Dijon, France, April 23-27. Pages: 1505-1510. ACM Press.

Ouyang, C., Dumas, M., Breutel, S., ter Hofstede, A.H.M. (2006). **Translating Standard Process Models to BPEL.** *Proceedings of the 18th International Conference on Advanced Information Systems Engineering (CAiSE 2006),* Luxembourg, June 5-9. Vol 4001 of LNCS, Pages: 417-432. Springer Verlag.

Ouyang, C., van der Aalst, W.M.P., Dumas, M., ter Hofstede, A.H.M. (2006). **From BPMN Process Models to BPEL Web Services.** *Proceedings of the 2006 IEEE International Conference on Web Services (ICWS 2006),* Chicago, USA, September 18-22. Pages: 285-292. IEEE Computer Society.

Recker, J., Mendling, J., van der Aalst, W.M.P., Rosemann, M., (2006). **Model-driven Enterprise Systems Configuration.** *Proceedings of the 18th International Conference on Advanced Information Systems Engineering (CAiSE 2006),* Luxembourg, June 5-9. Vol 4001 of LNCS, Pages: 369-383. Springer Verlag.

Recker, J., Wohed, P., Rosemann, M. (2006). **Representation Theory versus Workflow Patterns: The Case of BPMN.** *Proceedings of the 25th International Conference on Conceptual Modeling (ER 2006),* Tucson, Arizona, USA, November 6-9. Vol 4215 of LNCS, Pages: 68-83. Springer Verlag.

Rosemann, M., Bandara, W., Gable, G. (2006). **Business Process Modelling Success. An Empirically Tested Measurement Model.** *Proceedings of the International Conference on Information Systems (ICIS 2006),* Milwaukee, Wisconsin, USA, December 10-13.

Rosemann, M., Recker, J., Indulska, M., Green, P. (2006). **A Study of the Evolution of the Representational Capabilities of Process Modeling Grammers.** *Proceedings of the 18th International Conference on Advanced Information Systems Engineering (CAiSE 2006),* Luxembourg, June 5-9. Vol 4001 of LNCS, Pages: 447-461. Springer Verlag.

Russell, N., van der Aalst, W., ter Hofstede, A.H.M. (2006). **Workflow Exception Patterns.** *Proceedings of the 18th International Conference on Advanced Information Systems Engineering (CAiSE 2006),* Luxembourg, June 5-9. Vol 4001 of LNCS, Pages: 288-302. Springer Verlag.

Wohed, P., van der Aalst, W.M.P., Dumas, M., ter Hofstede, A.H.M., Russell, N. (2006). **On the Suitability of BPMN for Business Process Modelling.** *Proceedings of the 4th International Conference on Business Process Management (BPM 2006),* Vienna, Austria, September 5-7. Vol 4102 of LNCS, Pages: 161-176. Springer Verlag.

Wynn, M.T., van der Aalst, W.M.P., ter Hofstede, A.H.M., Edmond, D. (2006). **Verifying Workflows with Cancellation Regions and OR-joins: An Approach Based on Reset Nets and Reachability Analysis (short paper).** *Proceedings of the 4th International Conference on Business Process Management (BPM 2006),* Vienna, Austria, September 5-7. Vol 4102 of LNCS, Pages: 389-394. Springer Verlag.

Zaha, J.M., Barros, A., Dumas, M., ter Hofstede, A.H.M. (2006). **Let's Dance: A Language for Service Behavior Modeling.** *Proceedings of the 14th International Conference on Cooperative Information Systems (CoopIS 2006),* Montpellier, France, October 29 – November 3. Vol 4275 of LNCS, Pages: 145-162. Springer Verlag.

Zaha, J.M., Dumas, M., ter Hofstede, A.H.M., Barros, A., Decker, G. (2006). **Service Interaction Modeling: Bridging Global and Local Views.** *Proceedings of the 10th International Conference on Enterprise Distributed Object Computing (EDOC 2006),* Hong Kong, China, October 16-20. Pages: 45-55. IEEE Computer Society.

Regional Conferences

Brelage, C., Recker, J., Mueller-Wienbergen, F. (2006). **Navigational Design of Web Information Systems – Framework Development and Case Study**. *Proceedings of the 14th European Conference on Information Systems (ECIS 2006) – CD format*, Göteborg, Sweden, June 12-14.

Recker, J. (2006). **Towards an Understanding of Process Model Quality. Methodological Considerations.** *Proceedings of the 14th European Conference on Information Systems (ECIS 2006) – CD format*, Göteborg, June 12-14.

Rosemann, M., Kluge, C., Dietzsch, A. (2006). **How to Realise Corporate Value from Enterprise Architecture.** *Proceedings of the 14th European Conference on Information Systems (ECIS 2006) – CD format*, Göteborg, June 12-14.

Rosemann, M., Neiger, D., Churilov, L., zur Muehlen, M. (2006). **Integrating Risks in Business Process Models with Value Focused Process Engineering.** *Proceedings of the 14th European Conference on Information Systems (ECIS 2006) – CD format*, Göteborg, June 12-14.

Recker, J., Indulska, M., Rosemann, M., Green, P. (2006). **Evaluating the Emerging Process Modelling Standard: Insights from Theory and Practice.** *Proceedings of the 14th European Conference on Information Systems (ECIS 2006) – CD format*, Göteborg, June 12-14.

Russell, N., van der Aalst, W.M.P., ter Hofstede, A.H.M., Wohed, P. (2006). **On the Suitability of UML 2.0 Activity Diagrams for Business Process Modelling.** *Proceedings of the 3rd Asia-Pacific Conference on Conceptual Modelling (APCCM 2006)*, Hobart, Australia, January 16-19. Vol 53 of CRPIT, Pages: 95-104. Australian Computer Science Communications.

Domestic Conferences

Fjellheim, T. (2006). **Over-the-air Deployment of Applications in Multi-Platform Environments**. Proceedings of the 17th Australian Software Engineering Conference (ASWEC), Sydney, Australia, April 18-21. Pages: 159-170. IEEE Computer Society.

Green, P., Rosemann, M., Indulska, M., Recker, J. (2006). **Improving Representational Analysis: An Example from the Enterprise Systems Interoperability Domain.** *Proceedings of the 17th Australasian Conference on Information Systems (ACIS 2006),* Adelaide, Australia, December 6-8.

Rosemann, M., de Bruin, T. (2006). **Towards Understanding Strategic Alignment of Business Process Management.** *Proceedings of the 17th Australasian Conference on Information Systems (ACIS 2006),* Adelaide, Australia, December 6-8.

Rosemann, M., Indulska, M., Chong, S., Bandara, W., Sadiq, S. (2006). **Major Issues in Business Process Management: An Australian Perspective.** *Proceedings of the 17th Australasian Conference on Information Systems (ACIS 2006),* Adelaide, Australia, December 6-8.

Rosemann, M., Recker, J., Ansell, P., Flender, C. (2006). **Understanding Context-Awareness in Business Process Design.** *Proceedings of the 17th Australasian Conference on Information Systems (ACIS 2006),* Adelaide, Australia, December 6-8.

Seidel, S., Rosemann, M., Bradford, L., ter Hofstede, A. (2006). **Developing Business Process Reference Model for the Screen Business – A Design Science Research Case Study.** *Proceedings of the 17th Australasian Conference on Information Systems (ACIS 2006),* Adelaide, Australia, December 6-8.

Zaha, J., Albani, A. (2006). **Compatibility Test for Coordination Aspects of Software Components**. Proceedings of the 17th Australian Software Engineering Conference (ASWEC), Sydney, Australia, April 18-21. Pages: 41-48. IEEE Computer Society.

Workshops

Decker, G., Zaha, J.M., Dumas, M. (2006). **Execution Semantics for Service Choreographies.** *Proceedings of the 3rd Workshop on Web Services and Formal Method (WS-FM 2006),* Vienna, Austria, September 8-9. Vol 4184 of LNCS, Pages: 163-177. Springer Verlag.

Kluge, C., Dietzsch, A., Rosemann, M. (2006). **Fostering an Enterprise Architecture's Value Proposition Using Dedicated Presentation Strategies.** *Proceedings of Workshops and Doctoral Consortium of the 18th International Conference on Advanced Information Systems Engineering*, Luxembourg, June 5-6. Namur University Press.

Recker, J., Mendling, J. (2006): **On the Translation between BPMN and BPEL: Conceptual Mismatch between Process Modeling Languages**. *Proceedings of Workshops and Doctoral Consortium of the 18th International Conference on Advanced Information Systems Engineering*, Luxembourg, June 5-6, Pages: 521-532. Namur University Press.

Recker, J., Rosemann, M., Green, P., Indulska, M. (2006). **Extending the Scope of Representation Theory: A Review and a Proposed Research Model**. *Proceedings of the 3rd ANU Information Systems Foundations Workshop*, Canberra, Australia, September 27-28. Pages: 126-140. ANU E Press.

Recker, J., Rosemann, M., Green, P., Indulska, M. (2006): **Towards a Theory of Modeling Grammar Acceptance**. *Journal of AIS sponsored Theory Development Workshop following ICIS2006*. Milwaukee, Wisconsin, December 14, 2006. Association for Information Systems.

Rosemann, M., Recker, J. (2006): **Context-aware Process Design: Exploring the Extrinsic Drivers for Process Flexibility**. *Proceedings of Workshops and Doctoral Consortium of the 18th International Conference on Advanced Information Systems Engineering*, Luxembourg, June 5-6, Pages: 149-58. Namur University Press.

van der Aalst, W., Guenther, C., Recker, J., Reichert, M. (2006): **Using Process Mining to Analyze and Improve Process Flexibility - Position Paper -**. *Proceedings of Workshops and Doctoral Consortium of the 18th International Conference on Advanced Information Systems Engineering*, Luxembourg, June 5-6, Pages: 168-177. Namur University Press.

Technical Reports

Adams, M., ter Hofstede, A.H.M., Edmond, D., van der Aalst, W.M.P. (2006). **Implementing Dynamic Flexibility in Workflows using Worklets.** *BPM Center Report BPM-06-06,* BPMcenter.org.

Aldred, L., van der Aalst, W.M.P., Dumas, M., ter Hofstede, A.H.M. (2006). **Understanding the Challenges in Getting Together: The Semantics of Decoupling in Middleware.** *BPM Center Report BPM-06-19,* BPMcenter.org.

Mulyar, N., van der Aalst, W.M.P., ter Hofstede, A.H.M., Russell, N. (2006). **Towards a WPSL: A Critical Analysis of the 20 Classical Workflow Control-flow Patterns.** *BPM Center Report BPM-06-18,* BPMcenter.org.

Ouyang, C., Dumas, M., van der Aalst, W.M.P., ter Hofstede, A.H.M. (2006). **From Business Process Models to Process-oriented Software Systems: The BPMN to BPEL Way.** *BPM Center Report BPM-06-27,* BPMcenter.org.

Ouyang, C., van der Aalst, W.M.P., Dumas, M., Breutel, S., ter Hofstede, A.H.M. (2006). **Translating BPMN to BPEL.** *BPM Center Report BPM-06-02,* BPMcenter.org.

Recker, J., Rosemann, M., Indulska, M., Green, P. (2006). **Business Process Modeling: A Maturing Discipline?** *BPM Center Report BPM-06-20,* BPMcenter.org.

Russell, N., ter Hofstede, A.H.M., van der Aalst, W.M.P., Mulyar, N. (2006). **Workflow Control-Flow Patterns: A Revised View.** *BPM Center Report BPM-06-22,* BPMcenter.org.

Russell, N., van der Aalst, W.M.P., ter Hofstede, A.H.M., Wohed, P. (2006). **On the Suitability of UML 2.0 Activity Diagrams for Business Process Modelling.** *BPM Center Report BPM-06-03,* BPMcenter.org.

Russell, N., van der Aalst, W.M.P., ter Hofstede, A.H.M. (2006). **Exception Handling Patterns in Process-Aware Information Systems.** *BPM Center Report BPM-06-04,* BPMcenter.org.

Verbeek, H.M.W., van der Aalst, W.M.P., ter Hofstede, A.H.M. (2006). **Verifying Workflows with Cancellation Regions and OR-joins: An Approach Based on Invariants.** *BPM Center Report BPM-06-01,* BPMcenter.org.

Wohed, P., van der Aalst, W.M.P., Dumas, M., ter Hofstede, A.H.M., Russell, N. (2006). **Pattern-based Analysis of BPMN – An Extensive Evaluation of the Control-flow, the Data and the Resource Perspectives (revised version).** *BPM Center Report BPM-06-17,* BPMcenter.org.

Wynn, M.T., Edmond, D., van der Aalst, W.M.P., ter Hofstede, A.H.M. (2006). **Synchronisation and Cancellation in Workflow based on Reset Nets.** *BPM Center Report BPM-06-26,* BPMcenter.org.

Wynn, M.T., Verbeek, H.M.W., van der Aalst, W.M.P., ter Hofstede, A.H.M., Edmond, D. (2006). **Reduction Rules for YAWL Workflow Nets with Cancellation Regions and OR-joins.** *BPM Center Report BPM-06-24,* BPMcenter.org.

Wynn, M.T., Verbeek, H.M.W., van der Aalst, W.M.P., ter Hofstede, A.H.M., Edmond, D. (2006). **Reduction Rules for Reset Workflow Nets.** *BPM Center Report BPM-06-25,* BPMcenter.org.

Wynn, M.T., van der Aalst, W.M.P., ter Hofstede, A.H.M., Edmond, D. (2006). **Verifying Workflows with Cancellation Regions and OR-joins: An Approach Based on Reset Nets and Reachability Analysis.** *BPM Center Report BPM-06-12,* BPMcenter.org.

Wynn, M.T., van der Aalst, W.M.P., ter Hofstede, A.H.M., Edmond, D. (2006). **Verifying Workflows with Cancellation Regions and OR-joins: An Approach Based on Reset Nets and Reachability Analysis.** *BPM Center Report BPM-06-16,* BPMcenter.org.

Other

Recker, J. (2006). **Process Modeling in the 21st Century.** *BPTrends*, May.

Rosemann, M. (2006). **Process Portfolio Management.** *BPTrends*, April.

Rosemann, M., Rikhardsson, P., Best, P., Green, P. (2006). **Business Process Risk Management and Internal Control: A Proposed Research Agenda in the Context of Compliance and ERP Systems.** *Proceedings of the 2nd Asia/Pacific Research Symposium on Accounting Information Systems.* Melbourne, Australia, 20 June.

Seidel, S., Rosemann, M., ter Hofstede, A.H.M., Bradford, L., Shortland, K., and Court, D. (2006). **Business Process Management for the Creative Industries: Facing Challenges Arising from Globalisation and New Technology**. *3rd Beijing Forum*, October 27-29. Pages: 148-170.

Stewart, S. and Rosemann, M. (2006). **Industry Projects (in BPM)**, in Transforming IT Education: Promoting a Culture of Excellence. C. Bruce, G. Mohay, G.Smith, I.Stoodley and R.Tweedale (eds.). Informing Science Press. Pages: 179-192

Membership of Editorial Boards

Researchers of the BPM Group are active as members of editorial boards of a number of international journals. In this role, they contribute with regular reviews to the overall quality of these journals. At the same time, this provides the opportunity to involve research students in review activities.

In 2006, we were represented in editorial boards of the following journals:

Journal	BPM Representative
Business Process Management Journal	Michael Rosemann
Enterprise Modelling and Information Systems Architectures	Michael Rosemann
Information & Management	Michael Rosemann
Information Systems and e-Business Management	Michael Rosemann
Information Systems Frontiers	Iris Vessey
International Journal of Enterprise Information Systems	Michael Rosemann (Assoc. Editor) Glenn Stewart
Journal for Global Information Management	Michael Rosemann
Journal of Database Management	Michael Rosemann Iris Vessey (Associate Editor)
Journal of Enterprise Information Management	Glenn Stewart (Associate Editor)

Conference Chairs & Members in Committees

In 2006, we provided the (co-)chairs to the following events.

Conference/Workshop	BPM Representative
2nd Workshop on Business Process Design (BPD 2006) in conjunction with BPM 2006 Vienna, Austria 4 September	Michael Rosemann (Co-Chair)
International Workshop on Service Composition (SerComp'2006) Hong Kong 18 December	Marlon Dumas (Co-Chair)

In 2006, we provided a member to the steering committees of the following conference.

Conference	BPM Representative
4th International Conference on Business Process Management (BPM 2006) Vienna, Austria 5-7 September	Arthur ter Hofstede

In 2006, we provided members to the program committees of the following events.

Conference/Workshop	BPM Representative
3rd Asia-Pacific Conference on Conceptual Modelling (APCCM 2006) Hobart, Tasmania, Australia 16-19 January	Michael Rosemann
9th Workshop on Reference Modelling, track as part of the Multikonferenz Wirtschaftsinformatik Passau, Germany 20-22 February	Michael Rosemann
IFIP International Conference on Research and Practical Issues of Enterprise Information Systems (CONFENIS 2006) Vienna, Austria 24-26 April	Michael Rosemann

11th International Workshop on Exploring Modeling Methods in Systems Analysis and Design (EMMSAD 06) in conjunction with CAiSE 2006 Luxembourg 5-6 June	Michael Rosemann
1st IEEE Workshop on Flexibility in Process-aware Information Systems (ProFlex 2006) held in conjunction with the WETICE 2006 Manchester, UK 26-28 June	Michael Rosemann
International Conference on e-Business (ICE-B 2006) Setubal, Portugal 7-10 August	Michael Rosemann
2nd Workshop on Business Process Design (BPD 2006) in conjunction with BPM 2006 Vienna, Austria 4 September	Wasana Bandara
2nd International Workshop on Business Process Intelligence (BPI 2006) in conjunction with BPM 2006 Vienna, Austria 4 September	Michael Rosemann
4th International Conference on Business Process Management (BPM 2006) Vienna, Austria 5-7 September	Arthur ter Hofstede Marlon Dumas
BPM Demo Session, 4th International Conference on Business Process Management (BPM 2006) Vienna, Austria 6 September	Jan Recker Nick Russell
3rd Special Track on "Business Process Oriented Knowledge Infrastructures" as part of the I-Know '06 Conference Graz, Austria 6 September	Michael Rosemann
3rd International Workshop on Web Services and Formal Methods (WS-FM 2006), Vienna, Austria 8-9 September 2006	Marlon Dumas
Hamburg International Conference of Logistics: Complexity and Risk Management in Supply Chains Hamburg, Germany 15-16 September	Michael Rosemann
4th Information Systems Foundation Workshop: Theory, Representation and Reality. Canberra, Australia 27-28 September	Michael Rosemann

International Workshop on Experience Management and Engineering (EME 2006) in conjunction with KES 2006 Bournemouth, UK 9-11 October	Michael Rosemann
2nd International Workshop on Vocabularies, Ontologies and Rules for the Enterprise (VORTE 2006) in conjunction EDOC 2006 Hong Kong 16-20 October	Michael Rosemann
2nd IEEE International Conference on e-Business Engineering (ICEBE'2006) Shanghai, China 24-26 October	Marlon Dumas
14th International Conference on Cooperative Information Systems (CoopIS'2006) Montpellier, France 1-3 November	Marlon Dumas
25th International Conference on Conceptual Modeling (ER 2006) Tucson, Arizona, USA 6-9 November	Michael Rosemann
3rd International Conference on Qualitative Research in IT & IT in Qualitative Research (QUALIT 2006) Brisbane, Australia 27-29 November	Michael Rosemann
5th GI-Workshop EPK 2006: Business Process Management with Event-driven Process Chains (EPCs) Vienna, Austria 30 November – 1 December	Michael Rosemann
1st International Workshop on Service- and Process-oriented Software Engineering (SOPOSE) in conjunction with the Asia-Pacific Conference on Software Engineering (APSEC 2006) Bangalore, India 6 December	Michael Rosemann
International Workshop on Service Composition (SerComp'2006) Hong Kong 18 December	Johannes M. Zaha

External Services

Members of the BPM Group provide a wide range of services, which are often less visible than publications, but in many cases very time-consuming. These types of services express a high level of confidence in our capabilities and demonstrate the commitment we make to developing a strong global BPM community.

Service	BPM Group Member
Executive Member of the Australian Council of Heads and Professors of Information Systems (ACPHIS)	Michael Rosemann
Member of the Australian Research Council (ARC) College of Experts, Mathematics, Information and Communication Sciences Panel	Michael Rosemann
External Examination of a PhD thesis, University of Melbourne	Michael Rosemann
Chair Association on Information Systems (AIS) Special Interest Group on Enterprise Systems	Glenn Stewart

Presentations

Members of the BPM Group in addition to the presentations at the academic conferences listed above gave the following presentations. The table also includes further related services to the community such as chairing at conferences.

Date	Event, Location	Title	Presenter
4 January	Boral, Brisbane	*Introduction to Process Modelling*	Michael Rosemann
9 January	University of Wollongong	*BPM Research at QUT. From BPM Maturity to Configurable Process Models.*	Michael Rosemann
14 February	IDS ProcessWorld Americas 2006. Miami, Fl., USA,	*How advanced is my BPM Initiative?*	Michael Rosemann
15 March	BTELL Business Process Management Conference. Sydney	*Process Analysis and Modelling*	Michael Rosemann
29-30 May	IQPC's Business Process Management Conference, Sydney	*Evaluating and Advancing BPM using a BPM Maturity Model*	Tonia de Bruin
30 May	Chair of IQPC's Business Process Management Conference, Sydney		Michael Rosemann
19 July	Information Systems Department Research Group, University of Southern Queensland, Toowoomba	*Developing a Research Concentration in BPM and Enterprise Systems*	Michael Rosemann
19 July	Faculty of Business, University of Southern Queensland, Toowoomba	*How to Gain an ARC Grant?*	Michael Rosemann
23-24 August	Chair of the 4th Australasian Process Days Conference, Sydney		Michael Rosemann

Date	Event, Location	Title	Presenter
24 August	4th Australasian Process Days Conference, Sydney	*How Contextual Factors Affect BPM Maturity*	Tonia de Bruin
21 September	QUT's Faculty of IT Dean's Breakfast, sponsored by Infosys Australia, Brisbane	*Business Process Management*	Michael Rosemann
25 September	ACPHIS workshop, Canberra	*ARC and RQF*	Michael Rosemann
10 October	Suncorp Knowledge Cafe, Brisbane	*Introduction to Business Process Management*	Michael Rosemann
11 October	CCi Symposium "Business Sustainability for the Screen Businesses", Melbourne	*Business Process Management in the Creative Industries*	Michael Rosemann and Didier Elzinga (Rising Sun Pictures)
27 October	CPA Qld Congress, Brisbane	*Leveraging Process Mapping for Improved Efficiencies and Control*	Michael Rosemann
17 November	SAP, Brisbane	*5 Years of SAP-QUT Relationship*	Michael Rosemann
20 November	SAP Labs, Bangalore	*Context-aware Business Process Management*	Michael Rosemann
20 November	Indian Institute of Sciences, Bangalore, India	*Business Process Management Maturity*	Michael Rosemann
22 November	Indian Institute of Technology (IIT), Delhi, India	*Critical Success Factors and Measures of Business Process Modelling*	Michael Rosemann
23 November	Indian Institute of Information Technology (IIIT), Pune, India	*Configurable Enterprise Systems Reference Models*	Michael Rosemann
24 November	IEEE Seminar, Bangalore, India	*Business Process Management - Hype and Reality*	Michael Rosemann