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<b>Academic Supervisor(s)</b>	Robert Whitfield
<b>Title</b>	A systems approach to resource management
<b>Abstract</b>	<p>In order for business processes to be reliably improved either from a process or resource utilisation perspective it is firstly necessary to be able to understand existing processes and procedures. Such an understanding should reflect current working practice of an organisation relating to resource management and incorporate considerations such as professional development, career paths, personality profiles, as well as more systematic issues such as resource expertise, capability, capacity and commitments. This understanding will be garnered within a closely-coupled parallel project in <i>Coupling Human and Business System Performance</i>. The initial purpose is to illustrate that the current resource management structure of the organisation can be represented in a holistic and reliable manner. It will provide a basis for developing a common understanding and models of the existing present practices within an organisation and allow management to consider the implications of their actions within a more global organisational sense. The models can then be subsequently used to model "what if" scenarios, in order to both validate the models and underlying simulation that allow the performance of processes, projects, portfolios and the organisation as a whole to be measured based on demands from NPD, base business support, process/technology improvement and personal development. The use of the model and simulation tool will be towards creating a balanced view of process improvement at opposed to other organisational process models that focus entirely on development as opposed to other organisational process models that focus entirely on development metrics such as lead-time reduction. Through general use, the simulation should also support the decision making process of the management hierarchy of the organisation, from the individual to the portfolio managers, to aid in the identification of</p>

	<p>process and resource bottlenecks (suggesting “what if” scenarios to potentially alleviate the bottleneck), resourcing accuracy, and overall performance. Once the model and simulation have been validated within a number of different management situations, optimisation techniques will be included to allow either parts of the model or the model in its entirety to be optimised. Again the focus of the optimisation will be towards gaining a balance trade-off between human-factors and the organisational performance.</p>
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