XML or eXtensible Markup Language is the latest Internet buzzword, but it is also a rapidly maturing technology that has powerful real world applications, particularly for business-to-business communications and the management, display and organisation of both structured and unstructured data (Hunter, 2000).

The anticipated benefits of XML include easier integration of legacy systems, improved business-to-business communications, simplified delivery of management information and platform independence across the complete customer-supplier value chain (Information Age, August/September 2000) (Morrison et al, 2000) (Finkelstein & Aiken, 2000).

The semantic web concept extends the idea of XML by providing not only the structure to a Web document, but by providing a way of describing the machine understandable meaning of a document. If this concept can be realised, the power of the Internet and computing in general will be enormously increased. However, many significant hurdles exist to achieving this goal, ranging from semantic representation, to natural language processing, to agent interaction.

This minitrack was created to enable researchers from around the world to share their research and practical implications of XML and the semantic web on government, military, and industrial IT strategy and operations. In addition to demonstrate how XML and associated research, tools and utilities have been used in real world applications. The minitrack provides researchers as well as IT managers with information on the benefits of XML and the semantic web and how it can be used as part of IT strategy development. Practical knowledge is also provided for systems developers through the presentation of case studies involving XML and semantic web designs and implementations.

McGregor details a methodology that applies XML to link business strategy with business process definition. The key contribution of this work is an extension to the Balanced Scorecard XML draft standard that incorporates quantified business process performance measures. This methodology is then applied to a specific case study where an organisation plans to provide personal loans to its customers.

Bartlett and Cook present a case study of an XML application whose security requirements are more complex than for a single document transfer between two parties. They propose a document transfer architecture into which XSLT can be plugged in.

Goeschka, Reis and Smeikal describe a distributed telecommunications management system that uses an object-oriented model to describe the distributed voice communications system where XML is used as the data interchange format between the client and the server and also for semi-structured persistency in a relational database.