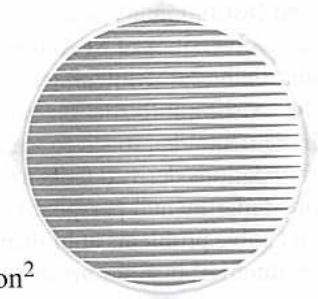


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Practice

# Modelling the evolution of legacy systems to Web-based systems



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## SUMMARY

To advance operational legacy systems, with their out-of-date software, distributed data and entrenched business processes, to systems that can take advantage of current Web technologies to give consistent, customized and secure access to existing information bases and legacy systems is a complex and daunting task. The Institutionally Secure Integrated Data Environment (INSIDE) is a collaborative project between the Universities of St Andrews and Durham that is addressing the issues surrounding the development and delivery of integrated systems for large institutions, constrained by the requirement of working with the existing information bases and legacy systems. The work has included an exploration of the incremental evolution of existing systems by building Web-based value-added services upon foundations derived from analysing and modelling the existing legacy systems. Progressing from initial informal models to more formal domain and requirements models in a systematic way, following a meta-process incorporating good practice from domain analysis and requirements engineering has allowed the project to lay the foundation for its development of Web-based services. Copyright © 2004 John Wiley & Sons, Ltd.

KEY WORDS: domain analysis; modelling; legacy systems; Web services; system integration

## 1. BACKGROUND

Developing managed learning environments involves the complex and intricate integration of the distributed and diverse systems used to support the business of Higher Education (HE).

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