Editorial: Interoperability for SME-based environments

Ricardo Jardim-Goncalves* and Adolfo Steiger Garcao
Departamento de Eng. Electrotécnica da Fac. de Ciências e Tecnologia da Univ. Nova de Lisboa, UNINOVA-CRI
Campus da FCT/UNL, P2829-516 Caparica – Portugal
Fax: 351 212941253
E-mail: rg@uninova.pt
E-mail: asg@uninova.pt
*Corresponding author

Abstract: This editorial outlines the scope and contents of the special issue on interoperability for SME-based environments, of the volume 20, numbers 1–3, of the International Journal of Computer Applications in Technology (IJCAT).

Keywords: product modelling; process modelling; standards; interoperability; building and construction.

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1 EDITORIAL

One of the major problems enterprises are facing at the moment is the interoperability of software applications to manage and progress in their business. Every day enterprises are looking for new business relationships, and the exchange of information and documents with new partners is most of the times not able to be executed automatically and in electronic format because of problems of incompatibility with the data formats adopted by the software applications they are working with.

The endless possibilities for interconnection between parties willing to operate has driven companies to a scenario of *mass*, where independent proposals to contribute to solve this interoperability problem is a priority to search. Looking at industrial companies, this problem is identified even bigger because they additionally need to have a complete integrated and interoperable environment covering product life cycle, manufacture and the related business activities. In the case of environments established in small sized companies (SMEs), the interoperability problem is even more relevant, considered the lack of available resources and the continuous necessity to establish dynamic relationships with others to proceed and improve their businesses.

This special issue of IJCAT includes 12 research papers, that present to the scientific and industrial communities many ideas and results that we believe can provide important contributions to decrease the extension of this problem, facilitating the interoperability in SME-based environments. Most of these papers addresses the construction industry in its scope, though this industry is one of the most important in the world established on networks of SMEs, where the problem of interoperability is very well identified as a requirement that must be solved urgently.

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Biographical notes:

Ricardo Jardim-Gonçalves is assistant professor at the New University of Lisbon, Portugal, Department of Electrotechnical and Computer Engineering, Faculty of Sciences and Technology, and senior researcher and technical project coordinator at UNINOVA – Institute for the Development of New Technologies (Lisbon-Portugal). His major areas of research are within: interoperability of industrial systems using standards; modelling and meta-modelling of applications and software; standards' reuse and harmonization; intelligent mapping; open platforms, architectures and toolkits; platforms and services for automatised web-based conformance; interoperability assessment activities. He has published chapters of books, such as, *Agile Manufacturing: 21st Century Manufacturing Strategy*, *Elsevier Science Publishers*, and several articles in journals: *International Journal of Computer Applications in Technology*, *International Journal of Computer Integrated Manufacturing*, *Journal of Intelligent Manufacturing* and *Communications of the ACM*.

Adolfo Steiger-Garção is full professor and head of the Department of Electrical and Electronic Engineering (DEE) of the Faculty of Science and Technology of the New University of Lisbon, Portugal (DEE/FCT/UNL), president of UNINOVA – Institute for the Development of New Technologies and director of its Intelligent Robotics Centre. He has more than 150 scientific publications in international journals, book chapters and international conferences, many of them in the area of computer science and interoperable systems. Responsible during the last 10 years for more than 50 international R&D projects, he has been scientific evaluator of national and international projects and programs.