Component-savvy SACHER to support software change procurers

Lech Krzanik

University of Oulu, Department of Information Processing Science (TOL)
Linnanmaa, FIN-90570 Oulu, Finland

CCC Software Professionals Oy
Lentokentantie 15, FIN-90460 Oulunsalo, Finland
phone +358 8 5205111, fax +358 8 5205222, email krzanik@rieska.oulu.fi

SACHER is a project that develops tools and methodology for software project requirement change management. In particular, software sensitivity to requirement changes is addressed. The focus of SACHER is on support for requirement change procurement. The project focuses on the domains of telecommunications and avionics.

It has been observed, and investigated during the early phases of the project, that the component structure, if any, of the changed software, greatly impacts such measures of change management as cost, effort, schedule, time to market, etc.

Apart from the many usual services for change management, the SACHER tools support a view of the anticipated change(s) in terms of a defined architecture, components, and cross-component properties. This is attempted also for software systems that do not explicitly support components. The paper evaluates how effective such attempts are for the procurers and how well they integrate with the entire functionality of software project requirement change management support.

SACHER is an international project partly financed by European Union under the Esprit programme (Esprit 23156). The major parts of the toolset include a product and process model database, a database of cost models, and modules supporting modelling, impact evaluation based on requirements traceability, cost evaluation and sensitivity evaluation as well as an integrated graphical user interface.

About the author: Dr Lech Krzanik is an associate professor of software production in University of Oulu, Finland, and a senior specialist at CCC Software Professionals Oy, Finland. He is an author of a book and 40 papers in the area of software production. Recently he has been involved in tools development for risk management, component-based software, and requirements change management.