SOLERES

A methodology for the retrieval and exploitation of environmental information through evolutive and cooperative user interfaces.

TIN2010-15588

This project includes and develops some multi-disciplinary applied research (such as software engineering, knowledge and artificial intelligent engineering and ecology) for the modelling of an intelligent information system of environmental management. In a more open and changing world, where information globalization and knowledge society are spreading in Internet, the modern Web-based information systems must be flexible and ready to be easily adaptable, extendable, accessible and manipulable in real time. The WIS (Web-based Information Systems) techniques are directed to this objective. However, there has recently been a special interest in the information globalization through a common vocabulary, by means of ontologies, and standardized way in which the information is retrieved in the Web using powerful search engines based on ontologies and intelligent software agents. Nevertheless, most WIS user interfaces' proposals are still being built based on traditional development paradigms, without taking into account the main criterion of the globalization for their construction: they have to be distributed, open and auto-adaptable. This Project is a continuation of research works already started in the SOLERES project (TIN2007-61497). Here we aim to study and develop a methodology and an experimental frame to work with WIMP type simple user interfaces for WIS (Windows, Icons, Menus and Pointers), based on "bottom-up" composition in real time of widgets-type COTS interface components. The proposed methodology consists of two phases, which allow simulating auto-changeable (evolutive) user interfaces in real time. This kind of evolutive interface is intended to be solved with a two-phase methodology based on elementary principles of adaptative and convergent systems (i.e., WIS, intelligence, ontologies, agents and mediation) and inspired in basic principles of changing models in the scope of MDD (Model-Driven Development). Moreover, we aim to look into the use of neural networks in evolutive user interfaces to get a more extended intelligent mediation service than the already developed by the SOLERES team in previous works.

Groups

Applied Computing Group (TIC-211)

The Applied Computing Group (TIC-211) is a PAI research group of the Junta de Andalucia (Spain) that uses IT & CS tools, methods, frameworks and standards to improve the application issues of R&D projects and developing novel research issues from the experience and application. http://www.ual.es/acg

Environmental and Computers Group (TEP-234)

The Applied Computing Group (TEP-234) is a PAI research group of the Junta de Andalucia (Spain) that uses IT & CS tools and the collaboration of developers and researchers that aims to produce software, systems, publications, and services that are beneficial to the ecological and environmental sciences.

EGMASA, Junta de Andalucia

Ingenieros Alborada IDI, S.L.

URCI

Fundacion Mediterranea

SOLERES Project

Team

Dr. Luis Iribarne Martinez

Applied Computing Group, University of Almeria, Spain luis.iribarne@ual.es

Dr. Nicolas Padilla Soriano

Applied Computing Group, University of Almeria, Spain npadilla@ual.es

Dr. Rosa Ayala Palenzuela

Applied Computing Group, University of Almeria, Spain rmayala@ual.es

Dr. Mercedes Peralta Lopez

Environmental and Computers Group, University of Almeria, Spain mperalta@ual.es

Dr. Jose Antonio Torres Arriaza

Environmental and Computers Group, University of Almeria, Spain jtorres@ual.es

Dr. Manuel Cruz Martinez

Applied Computing Group, University of Almeria, Spain mfcruz@ual.es

Massimo Menenti

Applied Computing Group (UAL) & TUDelft Univ., Netherlands mmenenti@ual.es

Saturnino Leguizamon

Applied Computing Group (UAL) & Univ. Tecnologica Nacional, Argentina saturleg@ual.es

Jose Andres Asensio Cortes

Applied Computing Group, University of Almeria, Spain francijo@ual.es

Moisés Espínola

Applied Computing Group, University of Almeria, Spain moises.espinola@ual.es

Javier Criado

Applied Computing Group, University of Almeria, Spain jacortes@ual.es

Diego Rodriguez-Gracia

Applied Computing Group, University of Almeria, Spain javi.criado@ual.es

Francisco Munoz Berenguel

Applied Computing Group, University of Almeria, Spain diegor@ual.es

More info: http://www.ual.es/acg
Applied Computing Group
University of Almeria
Ctra, Sacramento s/n, 04120 Almeria
SPAIN

contact: luis.iribarne@ual.es