Departamento de Matemática

Disciplina de Programação Avançada

Ano lectivo de 2013/2014

Proposta de tema

Título: Graphical Interface to Numerical Aplications

Sumário: In 2005, the Center for Mathematics odf the University of Coimbra created the *Laboratory of Computational Mathematics* (CML `http://www.uc.pt/uid/lcm`) with the aim to promote the use of mathematics and scientific calculations in solving problems relating to the various areas of science, Engineering and Finance.

Despite the huge success of some of these projects, there are still gaps that urge to solve.

In particular, the user interface did not matched the quality of the algorithms since the software developed in the project is not finalized towards a "user friendly" interaction.

The challenge in this project is to develop a application to make the interface between the software developed by researchers from the LCM (in *MatLab*, *Freefem++* or others) and the end user, someone in the industry.

The interface should be done using graphics features as windows, icons and menus systems through a Network page or a standalone program.

The application will have to be prepared to be run on different operating systems and be very appealing both from the aesthetic point of view as functional.

As a final objective has been the "package" of a given application for delivery to "key-in-hand" to a company, possibly through the construction of a "virtual machine" or a standalone program.

Condições de Preferência: Databases, HTML, PHP

Condições Especiais: Basic knowledge of Numeric Mathematics

Orientador(es): Professores Adérito Araújo, Sílvia Barbeiro e Pedro Quaresma

Data: 22 de Janeiro de 2014

O proponente
Adérito Araújo