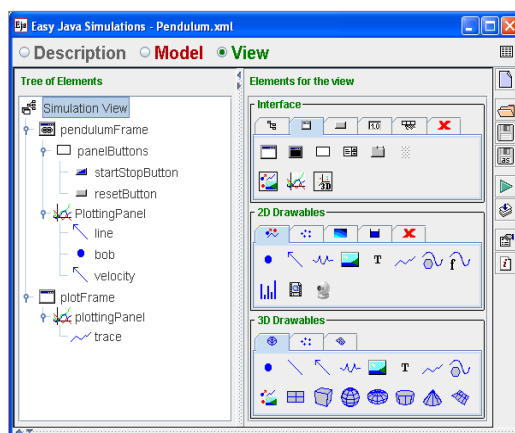


Easy Java Simulations for Physics Winter School



SAIP 2012
University of Pretoria, South Africa
July 9, 2012

This winter school provides an introduction to Easy Java Simulations (EJS) to model physical systems. EJS is a free, open-source software package written in Java that helps **non-programmers** create interactive simulations in Java, mainly for teaching or learning purposes. EJS is part of the Open Source Physics (OSP) project.

The advantage of using EJS to simulate physical phenomena is that one is able to focus on the physical model, and with **minimal knowledge of Java programming** one is able to create an interactive simulation of a model relatively quickly. These simulations can then be shared with a larger community via the OSP/COMPadre database. In this way a large community of computational physics teachers and researchers are able to easily integrate computation into their teaching and research.

There is enormous potential for these methods to become common place in the physics teaching and research environments in South Africa. These methods are easily transferable to other quantitative disciplines, especially in the teaching environment.

The purpose of this winter school is to give an overview of the EJS software and to demonstrate the ease with which one can learn to use it to create and distribute interactive simulations.

The winter school will be held on Monday, 9 July 2012, from 8.30 am until 12.30 pm, including a tea break and lunch afterwards. Talks will be presented by local physicists who use EJS in their teaching and research, as well as by students who have used EJS to create simulations of various physics problems.

This winter school will benefit anyone teaching computer-based modeling as well as computational physicists wishing to adopt EJS for their own teaching and research. Further information on EJS and the South African user group committee can be found on the following website: www.up.ac.za/physics/EJS.