Universidad de Los Andes, Venezuela

An EELA member institution creates a portable and Virtual Bioinformatics Laboratory

CeCalCULA propels the creation of a Virtual Laboratory in Bioinformatics in a single "Live" DVD, thanks to the efforts of the Free Software Unit of the Technological Park of the University of The Andes (ULA).

CeCalCULA (www.cecalc.ula.ve/en), in its continuous quest for innovating in information technologies to fulfill the continuous necessities and expectations of its academic and scientific community at a regional level, challenged the Free Software Unit (nux.ula.ve) of the Technological Park of the ULA (cptm.ula.ve) to produce a DVD with frequent software applications, in the area of the Computational Biology, that could be used to solve public health problems.

The answer to the challenge is a DVD -a *LiveDVD* (the details of this definition can be consulted in http://nux.ula.ve)- code-named Bio-ULAnix, with more than 220 Bioinformatic programs installed and ready to work, "just a click" programs, freeing the end user of any worry about installation details.

Also, the DVD has information of about ten complete bacterial genomes so that it can be a source of input data for typical problems in courses of sequence analysis taught in graduate programs of Cellular Biology, Biotechnology as well as the elective course in the Interdisciplinary Academic Program (*PAI: Programa Académico Interdisciplinario*) of the ULA Faculty of Sciences.

The selection of the different applications in the DVD had to do with the continuous training work of CeCalCULA in the region, such as the Workshop on Tools for Sequence Analysis with more than ten years of experience, and by supporting the needs of graduate students in Biology and Biotechnology at the University of The Andes.

Why a DVD? Bio-ULAnix will allow the academic and research community to take advantage of the great amount computational applications in Bioinformatics that have been developed specifically for the GNU/Linux Free Operating System. This, without the users having to worry about installing and tuning their own Linux. Bio-ULAnix becomes, thus, an easily transportable Biocomputing Laboratory.

A lighter version for a regular CD or a USB memory are envisaged. However, the challenge raised in this first version was to offer to the users a complete set of integrated applications in the same work environment consolidated on the GNU/Linux operating system.

Requirements to run the DVD: To execute Bio-ULAnix a standard DVD reading drive unit is needed, and at least 256 Mb of RAM memory (recommended 512 Mb). It is essential that the machine is configured so that it can boot from the DVD drive unit. In case of doubts, please feel free to call to the Free Software Unit at the Technological Park through the telephone +58 274 2401125 or by the e- mail: nux@ula.ve

Your help is welcome: Bio-ULAnix should be seen as a virtual laboratory able to cover the needs in the Computational Biology area, and particularly designed for the academic and scientific community, and for that reason commentaries, critics and formal questions on the matter are highly appreciated. Please use the forum, wiki and blogs available at the project portal http://nux.ula.ve, where you will also find a collection of frequent answered questions (FAQ).

Where can Bio-ULAnix be obtained: Bio-ULAnix (beta version 1r3) is going to be distributed among the cellular biology and biotechnology graduate students as well as in workshops support by CeCalCULA. If you wish to have a copy of Bio-ULAnix, please call (Venezuela, Mérida) +58 274 2401125, or by e-mail nux@ula.ve. Also it is possible to download the "ISO image" that allows you to generate the DVD from the Web site: ftp://ftp.ula.ve/ulanix/bio-ulanix and use it, with any DVD burner, to recreate to Bio-ULAnix. It is highly recommended to use always the latest available version.

Do you wish to know more about the design principles and objectives of the ULAnix DVD project? The following Web links describe the philosophy behind this important development that offer the possibility to create thematically customized environments while keeping the easiness of use. Some details in:
http://nux.ula.ve/documentos/ulanix.pdf
http://nux.ula.ve/documentos/Plan_de_Migracion_Mayo_2006_CCA.pdf