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Internship report



Server and Mandrake Linux configuration wizards
developpement
1^{er} July to 31th Decembre

Introduction

This training period of six month, from 1st July to 31th December, was done at MandrakeSoft. This firm edit the Mandrake Linux distribution. Linux is a free operating system (Windows is also an operating system). During this period, I have worked on three differents main projects on the topic of the Mandrake Linux system configuration, more precisely on servers and globally on the Linux operating system. Although centered on this specific aspect of Mandrake Linux this training period made me dicovering a lot of activities and working methods of MandrakeSoft.

Linux

Linux is a free Unix-type operating system originally created by Linus Torvalds with the assistance of developers around the world. Developed under the GNU General Public License , the source code for Linux is freely available to everyone.

MandrakeSoft

MandrakeSoft was created in November 1998 by several linux enthusiasts met on the internet. The original idea of this start-up was to promote linux for all users, and not just for the experts. They decide to create a distribution with a Graphical desktop interface more convivial and easier to use. The GPL license (General Public License) governs the development and redistribution of Mandrake Linux. This license provides everyone the right to copy, distribute, examine, modify and improve the system as long as the results of these modifications are returned to the community. It is this development model that allows Mandrake Linux to collect the best ideas from developers & users from across the globe to result in a rich variety of techniques and solutions.

MandrakeSoft can be seen both as a project initiator and a skills organizer in the Open Source arena. Its ambition is to help users benefit from community's innovations by offering a powerful, stable and recognized operating system together with a full range of solutions for client computers (Windows-type graphical user interface, compatible office suite, Internet browser) and for servers (web server, e-mail server, print server, etc.).

Products currently include more than 2300 applications. Linux-Mandrake provides a distribution that is easy to install and use as well as being fast and reliable. Today, Linux-Mandrake is the most international Linux distribution because its installation is supported in more than 40 languages. The different Linux-Mandrake products include the operating system, related programs on CD-ROMs, and installation tools, as well as full documentation and technical support. To go even further, MandrakeSoft offers to its Linux-Mandrake users a global support in terms of Services in packaged form.

Projects

Configuration and more precisely these of Linux server is sometime really hard and the complexity of parameters get in trouble also experts. My job was to get it easier by building some wizards.

DrakWizard

The first projet I worked on was Drakwizard. It aims to improve the "nightmare" that is the current state of Linux/Unix configuration. This is a wizard loader. It is based on modules wich are specific to a service to configure (Mail, Web, File sharing, etc...). By now, more than ten wizards are available. A previous version was programmed in Java but was not updated from about two years. This project was in fact a translation of this version to Perl (Pratical Extraction and Reporting Language) in a first time. Then, I have had to complete the first version on wich about 30% of the whole fonctonnalies required by the modules was implemented. So I have finalised the Drakwizard program itself and mainly the modules which represent the most of work.

Naat

Then, I was involved in the Naat (Network Appliance Administration Tool) Team. Naat allows you to administrate computer over the internet or simply on the local host via a web interface. This new version is a total remake of the two previous versions. It is also based on modules for each services. I have had to finalize this project to make a demonstration to investor. No modules was ever implemented so I have had to develop them and complete the loader for last minute bug due to how new was the modules for the loader.

DrakConnect

Finaly, and to close my training period I have worked on DrakConnect. This is yet another configuration tool but for connection management. This is a wizard for LAN, modem, cable and ADSL configurations.

Packaging

In parallel of those previously described projects, I was in charge of about twenty software included in the Mandrake Linux distribution. Last evolutions of this programs are integrated in the distribution using a specific package format, RPM (RedHat Package Manager). So I have had to supervise all of this software to get informed of new versions or patches and package them. I have also packaged software who I was not the official maintainer by interest, by curiosity or by prestige (my name appear in the package).

Conclusion

During this training period I have improved my knowledge of the Linux operating system and of its configuration. By a personal point of view, I have learned to manage a project, analyse a problem and ask clear questions to solve them. Humanly, working in a team allowed me a better integration and recognition of my work. But, despite who this training period was positive, I regret to haven't worked more in a team. About sixty percent of the work was done alone.

In conclusion, this experience in the free software and linux community, both in full expansion, is a major asset in many data-processing sectors but beyond the specific skills acquired in this domain it is very interesting to have contributed its share to free software.