An Up-to-date Overview of Free Software and its Makers

Projects on the Move

Free software covers such a diverse range of utilities, applications and other assorted projects, that it can be hard to find the perfect tool from all that programming effort. As the range increases so rapidly, you occasionally need a little help to make your choice. We pick the best of the bunch for you: the Icculus Project, the Linux Theme Day, news from Debian, and about the Debian Installer.

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This month's Projects on Move will be looking at Icculus, a project that could make Linux an Eldorado for computer gaming.

Icculus

Linux has not managed to make any notable inroads in the gaming area, despite its advances on the desktop. The operating system is still hampered by the reputation it has, as being unsuited to gaming. Although the current version of Wine [1] is capable of running the well-known Half Life ego-shooter, Wine cannot provide adequate support for most Windows games. Many major software developers do not (yet) regard Linux as a potential market.

Not all Linux developers are happy with Windows' quasi-monopoly in the gaming area. And one of them, Ryan C. Gordon, a.k.a. "Icculus", has taken it upon himself to port Windows games to Linux, founding the Icculus Project in the process to do so. He co-ordinates this work via the Icculus Web site [2]. Ryan has quite a lot of support from software manufacturers, who supply him with game sources provided he signs the appropriate "non-disclosure agreements". So it seems that software game manufacturers are not totally disinterested in Linux.

To facilitate the port, Ryan Gordon leverages the fact that most game manufacturers separate their executables from sound, graphic, and texture data. The executable run by the player is only responsible for connecting the various parts of the game. In other words, the graphic, sound, and texture files do not need to be ported. This also allows Ryan to publish his results on the Internet; a binary is useless without the appropriate data files, and so anyone wanting to run the game on Linux will need to buy the original version first. The disadvantage of this method is that gamers will be required to have a Windows installation to be able to copy their data files to a Linux directory.

Ryan's biggest task so far follows a different pattern: it is a Linux port of "America's Army". The original game, which was supported by the Pentagon, only runs on Windows, and is designed to introduce the US Army to civilians. America's Army is available on the Internet, and this allows Ryan to publish his port including the data files, thus avoiding the Windows detour. The Linux port of the game is compatible to the Windows version, allowing Windows and Linux gamers alike to compete in networked games. For real gaming pleasure you will need a fast video adapter with hardware accelerator. Ryan Gordon has created another port of America's Army in the meantime: the game now runs on Mac OS X.

Ryan's list does not consist entirely of games; the accompanying server programs also need to be ported. Game manufacturers again tend to create Win-

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dows-only server programs, completely ignoring the fact that there are more Linux than Windows game servers. The Icculus page currently offers the two most popular server programs: "Medal of Honor: Allied Assault" and "Battlefield 1942". The Medal of Honor server has already seen production use. Battlefield 1942 is still slightly buggy, and occasionally produces errors or even crashes.

The functional principle of the Linux server variants is the same as that of the clients. Again Gordon only ports the executable that links up graphics and sounds. The disadvantage of needing a Windows version thus remains.

Ryan's latest project is a port of the Medal of Honor client, and September 15 saw the release of the beta1 version. This version works for the most part, but there are a few bugs, such as problems with playing sound files. Anyone interested in doing some beta testing is welcome to do so.

Shortly after the beta1 version was released, the first bug reports started pouring in to the Bug Tracking System (BTS) at icculus.org. BTS is an important part of the project. Testers can use Bugzilla [3] to add their incidents to the database. This can help other users facing the same problem, and it is not uncommon for Ryan Gordon himself to chip in with a few tips.

The Icculus Project is an interesting idea. It could develop into a central repository for games on Linux. And should Ryan Gordon manage to launch the games directly from the original CDs under Linux without taking a detour via Windows, this would add to the project's prestige and provide additional impetus.

Linux Theme Day

The LinuxTag is without a doubt the biggest Linux event in Europe, and thus one of the most important events in any year. But local events are just as important on a smaller scale, and often show amazing versatility. Schools and universities often organize events of this kind, as was the case on September 26 when the University of Düsseldorf opened its doors to host the Linux Theme Day.

The motto for the event was "Open Source Software in Productive Applications: Best Practice Examples from Business and Administration", and it was open to the public for free.

The event was opened by Dr. Ralf Allrutz, the co-founder of Science + Computing AG (S+C) [4]. In 2002 the German Antitrust Division placed an order with S+C to migrate their servers from Windows to Linux. The aim was to replace the existing Windows setup and provide a smooth transition, while utilizing existing resources as efficiently as possible – the project did not allow for additional hardware purchases.

Ralf Allrutz drew an extremely positive conclusion from this project, stating that the target of using existing resources in an efficient way was achieved using Debian GNU/Linux as the basic operating system, applications such as SapDB as database back-ends, and CUPS-based printing. The migration actually freed up some resources, and the performance of the Open Source solution was a lot better. However, Allrutz asked the audience to bear in mind that, although it had been possible to complete the migration within the 3 month window, more time would have been appropriate to a project on that scale, as migrating tends to produce unforeseeable issues.

This talk was followed by a keynote from Hans-Georg Eßer, who showed users how to run Windows software on Linux. He introduced the major players, VMWare [5], and Win4Lin [6], for running Windows software on Linux. He also showed a solution based on Wine/Crossover Office [7] that uses API emulation to fool Windows software into thinking that it is running on a Win32 system. Wine is available free of charge on the project's Website [1], but it does not contain many of the enhancements that Crossover Office provides.

Following on, Mirko Dölle presented the Video Disc Recorder, VDR for short. The VDR is good example of putting a Linux computer to daily use. Mirko Dölle explained the DVB stream playing features that the VDR offers, before going on to demonstrate VDRadmin [8], a convenient interface for Web browser based configuration of the VDR. Mirko not only discussed the technical aspects of the machine, but also went on to discuss a few important, albeit little-known facts. He criticized the fact that it is currently illegal to use *libdvdcss* to play encrypted DVDs. Also, Linux users are not permitted to use VDR to decrypt Pay TV channels, as the program does not have the appropriate license.

Klaus Knopper, who is well-known for his Knoppix Linux Live CD, introduced the principles of Open Source software in his talk. He took a look at historical developments and pointed out where Open Source software is headed at the moment. Providing a competent commentary, and with his usual humorous approach, Klaus also looked at the discussion of software patents [9] in the EU.

These keynotes were followed by short talks held by members of staff from the university's computer center, which was hosting the event. Michael Gutmann presented an overview of current developments in the SCO case, Detlef Lannert focused on security topics.

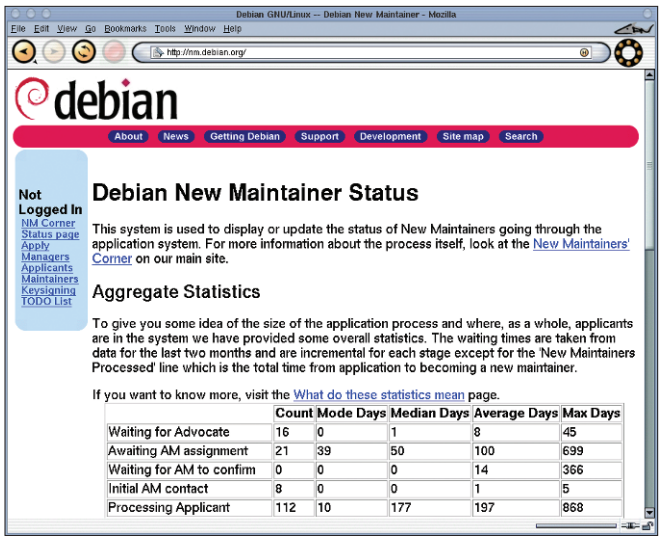
The event was closed by a panel discussion with all the speakers and a good deal of audience participation. Some of the most popular topics were not directly related to Linux, TCPA (Trusted Computing Platform Alliance) for example, and exchanging data between, and migrating, Office solutions for Linux and Windows gave rise to some debate. The Linux Theme Day at the university was definitely a big success.

Figure 1: "America's Army", a game supported by the Pentagon has been brought to Linux by the Icculus Project. More ports are available from the Icculus homepage

Debian New Maintainer System

Debian developers have a responsible task: they can upload *.deb* packages to the official Debian archive, and thus, indirectly, have root privileges to any computers that run Debian GNU/Linux. They also have privileges for many of the project's developer machines. The potential for damage is huge.

To ensure that new developers are trustworthy, the project introduced the Debian New Maintainer System some time ago, for anyone interested in becoming a Debian maintainer.



	Count	Mode Days	Median Days	Average Days	Max Days
Waiting for Advocate	16	0	1	8	45
Awaiting AM assignment	21	39	50	100	699
Waiting for AM to confirm	0	0	0	14	366
Initial AM contact	8	0	0	1	5
Processing Applicant	112	10	177	197	868

Figure 2: The Debian New Maintainer System homepage. Anyone wanting to become an official Debian developer will need to go through this process. Developers can view statistics on current applications on this page

The Debian New Maintainer System works on simple lines. After adding their names to the NM database, aspiring new developers have to find Debian developers to support their applications. Following this, a personal mentor, the so-called Application Manager (AM) is assigned to each developer. The AM guides the new developer through the NM process and checks whether the candidate has the necessary technical know-how and understanding of Debian's philosophy.

The AM then compiles a report on the applicant and submits it to the Debian Account Manager. The Account Manager is the only person authorized to create an account for the new developer in the Debian LDAP database. As this procedure often takes a long time, and the report needs a lot of attention, this part of the process takes the longest to complete. This has often caused resentment on the part of the candidates in the past.

This situation has now changed: James Troup, the Debian Account Manager, recently went through the list of pending applicants with Martin Michlmayr, who is responsible for Debian NM, and allowed these candidates access to the Debian LDAP system where considered appropriate. Applicants who did not make the grade have been notified.

On October 3, James Troup stated [10] that he was unable to accept some applications. He laid out a scheme with options for rejecting applications:

- Weak: The Debian Account Manager is not convinced that the applicant should become a Debian developer. The NM committee, comprising the active AMs, can reverse this decision with a 1/4 majority.
- Strong: The applicant should definitely not become a developer in the Debian Account Manager's option. This decision can be reversed by the NM committee with a 2/3 majority.
- Ultimate: The candidate will definitely not be accepted as a Debian developer. The NM committee will have no influence on this decision.

News on the Debian Installer

The Debian Installer will replace boot floppies in the next release. Recently, the Debian Installer was so buggy that productive use was out of the question. This would not have been a big problem, if the Release Manager, Anthony Towns, had not set December 1 as the release date for Debian GNU/Linux Sarge.

But as he did, developers were forced to remove known bugs and more obvious construction sites quickly. To achieve this goal, a Debcamp was held at Oldenburg, Germany, in September. The camp attracted Debian Installer developers and a large number of developers from other projects, who worked together.

Joey Hess summarized the events at the Debcamp in a message to the *debian-boot* mailing list [11]. He stated that support for the PowerPC had been improved. The developers updated the kernel packages, to bring Debian up to par with version 2.4.22. Also, the x86 port of the Debian Installer will soon be capable of handling USB keyboards and PCMCIA cards.

Developers who attended the Depcamp also came up with a plan for the initial test cycle and the release of the Debian Installer. The aim is to start testing as soon as possible, and then go into a feature freeze after adding a few modifications.

Following this phase, any *.udeb* packages relevant to the Debian Installer should enter the testing branch of the distribution.

That's all folks...

… for this month at least. If you can recommend a program that you would like to see featured in *Projects on the Move*, why not mail me at [12]? I look forward to your comments! ■

INFO

[1] Wine Project homepage: *http://winehq.org/*
[2] Icculus Web site: *http://icculus.org/*
[3] Bugzilla Web site: *http://www.bugzilla.org/*
[4] Science + Computing AG: *http://www.science-computing.de/*
[5] VMWare homepage: *http://www.vmware.com/*
[6] Netraverse's Win4Lin: *http://www.netraverse.com/products/win4lin50/*
[7] Codeweavers – Windows software under Linux: *http://www.codeweavers.com/*
[8] VDRAdmin Web site: *http://www.linvdr.org/download/vdradmin/*
[9] Software Patents in the EU: *http://swpat.ffii.org/*
[10] Mail from James Troup on rejections: *http://lists.debian.org/debian-newmaint/2003/debian-newmaint-200310/msg00001.html*
[11] Posting from Joey Hess: *http://lists.debian.org/debian-boot/2003/debian-boot-200309/msg00850.html*
[12] Tips and suggestions: *projektekueche@linux-magazin.de*