

# T-D O S E

Technical Dutch Open Source Event ([www.t-dose.org](http://www.t-dose.org))

In the weekend of 2nd and 3rd December 2006 a new Open Source Event will take place. The location is the Auditorium of the Technical University of Eindhoven (Netherlands). I am one of the organizers and we named the event T-DOSE. T-DOSE is an abbreviation of "Technical Dutch Open Source Event" it consist of 2 central tracks an open source market and several developer or community rooms.

Why do we want a new event? Simple the organizers think that The Netherlands lacks an event where Open Source and communities are important. In Belgium this formula has proven very successfull with FOSDEM. However in the Dutch Open Source event calender a community driven event lacks uptill now. T-DOSE provides is such an event.

When:	<b>Saturday 2 and Sunday 3 December 2006</b>
Where:	Auditorium TU/e in Eindhoven (nearby Central train station)
Entrance:	Entrance is free
More info:	Website: <a href="http://www.t-dose.org">http://www.t-dose.org</a> E-mail: <a href="https://lists.sourceforge.net/lists/listinfo/t-dose-announce">https://lists.sourceforge.net/lists/listinfo/t-dose-announce</a>

Foundation T-DOSE (Technical Dutch Open Source Event) strives to promote the use and knowledge about Open Source software. By organizing a yearly event called T-DOSE the foundation hopes to give Open Source communities a platform on which they can interact amongst each other and present themselves to their user base.

**Jeroen Baten** is author of at least five Open Source books. He has his own company I2RS. Baten is specialised in Linux and Open Source and a well known speaker in the Netherlands. His best known book is called "Linux in bedrijf". Baten is initiator and member of "Vereniging Open Source Nederland (VOSN)" and " Open Source Business Club (OSBC)". He also wrote educational books for Linux Professional Instituut (LPI level 1 and 2).

**Jean-Paul Saman** is a consultant, senior software architect and engineer with 10 years of experience in developing multimedia, embedded and networking systems. Saman has worked for various companies in Research and Development jobs as well as in productizing software. Since 2004 he is director of M2X, a company that provides commercial services for Multimedia, Networking and Embedded systems using Open Source software. Furthermore he actively contributes to Open Source Software projects such as: "Das Universal bootloader" (u-boot), VideoLAN project and the Linux Kernel.

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## Saturday 2 december 2006

Time	Track 1	Track 2
10:00 - 11:00	Keynote Willem Jan Withagen	
11:00 - 12:00	iText, a Free Java PDF Library Bruno Lowagie	LPI 1 examination walkthrough Klaus Behrla
12:00 - 13:00	KeyTouch Marvin Raaijmakers	Time Doctor Martijn Rutten
13:00 - 14:00	pause	pause
14:00 - 15:00	Exchange migratie naar Linux Martin Webhuis	Garbage Collection in Logfs Joern Engel
15:00 - 16:00	MySQL Cluster Intro & Usage Geert Vanderkelen	Advancing the Text Interface Sven Guckes
16:00 - 17:00	KDE Future of the Free Desktop Sebastian Kuegler	Hacking hardware Gerwin van der Kruis
17:00 - 18:00	Legal side of Open Source (interactive session) Arnoud Engelfriet	Virtualization and clustering: Improving High-availability Frank Weyns

## Sunday, 3 december 2006

Time	Track 1	Track 2
10:00 - 11:00	Peer 2 Peer broadcasting the Next Internet Multimedia Revolution (Keynote) Robert Shepherd	
11:00 - 12:00	CodeYard Scholier en Open Source Sebastian Kuegler	mCRL2 systeem analyse Yaroslav Usenko
12:00 - 13:00	Open Office macros development Cor Nouws	Building an e-mail client for mobile devices Philip van Hoof
13:00 - 14:00	pause	pause
14:00 - 15:00	Performance-analyse met 'atop' Jan Christiaan van Winkel	Realtime Linux Klaas van Gend
15:00 - 16:00	Managing enterprise data-centers with Open QRM Matt Rechenburg	Streaming networks with VLC Jean-Paul Saman
16:00 - 17:00	KDE4 Technology Preview Adriaan de Groot	GNU Telephony David Sugar
17:00 - 18:00	Closure	

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## Developer and Community Rooms

**Saturday 2 december 2006**

<i>Time</i>	<i>Room 1</i>	<i>Room 2</i>
10:00 - 13:00		
13:30 - 17:30	PGP Keysigning / CACert	Linux Professional Institute LPI 1&2 Exams <a href="#">Register here</a>

**Sunday, 3 december 2006**

<i>Time</i>	<i>Room 1</i>	<i>Room 2</i>
10:00 - 14:00		Linux Professional Institute LPI 1&2 Exams <a href="#">Register here</a>
14:00 - 18:00		

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## Speakers

### **Klaus Behrla**

Klaus Behrla is an LPI examiner that will hold LPI 1 and 2 examinations on T-DOSE. Saturday at afternoon and Sunday morning. An LPI examination (in english) will cost 60 euros during the T-DOSE conference. See [LPI Germany website](#) for more information on LPI examinations. Or go right to the [schedule at T-Dose](#)

### **LPI 1 examination walkthrough**

A workshop or classroom for LPI-starters, explanation of the most important facts, themes and contents of Level 1 examination. This can be used as preparation for the LPI 1 Exam later this saturday. An LPI examination will cost 60 euros during the T-DOSE conference. You can [register here](#) for the LPI exam

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### **Jan Christiaan van Winkel**

Jan Christiaan "JC" van Winkel is sinds 1990 werkzaam bij AT Computing te Nijmegen. Hij is daar docent van o.a. de cursus "Performance Analyse en Tuning". Daarnaast is hij sinds 1995 bestuurslid van vereniging NLUUG - de vereniging voor open systemen en open standaarden.

### **Performance-analyse met 'atop'**

Als de responstijden van je Linux-systeem te wensen over laten, is het zaak om stapsgewijs in te zoomen op de werkelijke pijnplek. Om een sluitend bewijs te krijgen waar de schuld ligt voor de vertraging moet de Linux-kernel voldoende aanknopingspunten bieden, maar moet ook een programma beschikbaar zijn dat voldoende gegevens toont en bewaart. In deze lezing komt het open source programma 'atop' aan de orde en wordt de meerwaarde ten opzichte van het standaard programma 'top' besproken.

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### **Joern Engel**

Jörn Engel has been working on embedded systems - most of them running Linux - since 2001. He has worked on the MTD subsystem, reduced Linux' resource hunger by several 100KiB and done the occasional here and there. After nearly six years and just as many contracts, he decided to leave IBM and pursue his old passion - filesystems. Expect a full-functional LogFS soon.

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## Garbage Collection in LogFS

LogFS [1] is the codename for a new flash filesystem, aimed to replace JFFS2 as the standard flash filesystem for Linux. Motivation as well as a brief overview of LogFS have been presented [2] at Linux Kongress 2005 in Hamburg.

As flash technology prohibits in-place updates (see [2]), LogFS has a log-structured design, similar to Sprite LFS [3]. However, while the log-structured approach solves one problem, it creates another, namely the need for Garbage Collection. Usually performed by a so-called "cleaner" thread, Garbage collection can cause problems calculating the amount of free space needed to complete an update [4]. Also, the very act of moving old data to a new location creates a significant overhead.

In principle, Garbage Collection is implemented by collecting data that is still valid and moving it to new segments (or eraseblocks in flash terminology). The long-term goal of Garbage Collection is to reorganize data such that it occupies fewer segments than before.

A naïve implementation may cause a short-term increase of used segments, leading to a deadlock where any remaining free segments have been filled with garbage collected data. JFFS2 [5] handles this problem by keeping some spare segments for Garbage Collection use - a strategy that has worked well in practice, but cannot be proven to suffice under all possible circumstances.

In this paper, we will demonstrate an alternative approach, tailored to the needs of LogFS, that can be proven to work deadlock-free. Furthermore, we will show how intelligent organisation of data can reduce the overall need for Garbage Collection, thereby improving both lifetime of the flash medium and filesystem performance.

- [1] <http://wiki.laptop.org/go/Logfs>
- [2] <http://wh.fh-wedel.de/~joern/logfs.pdf>
- [3] <http://citeseer.ist.psu.edu/rosenblum91design.html>
- [4] <http://lwn.net/Articles/190223/>
- [5] <http://sources.redhat.com/jffs2/jffs2.pdf>

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## Arnoud Engelfriet

Arnoud Engelfriet is a European patent attorney and computer scientist. He specializes in software licensing and Internet IP issues. Finding himself the only one in the office in 2002 who knew what the GPL was, he quickly became the open source licensing expert for Philips. Arnoud regularly publishes and speaks about open source, Linux and Internet law. His [website lusMentis.com](http://lusMentis.com) carries over 300 articles on law and technology.

## Legal side of Open Source

The talk is an interactive session on the legal side of open source. I'll give a short introduction on

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software and copyright, the basics of licenses and then answer open source licensing questions relevant for developers. What kind of licenses are there, what are their requirements and how do they interact? Does anyone know what a derivative work is? How much should an open source project care about licensing, and how do you do that without hiring a full-time lawyer?

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## **Klaas van Gend**

Since 1999, Klaas has been professionally engaged with Linux software development. In his current job as Field Application Engineer Europe at MontaVista Linux Software, he visits a lot of customers across Europe. Because he didn't want to be dependent on the friendliness of the local systems administrator, he bought a UMTS laptop card. Meanwhile he tried several cards from several telecom operators.

Klaas also writes as a free-lance author for the Dutch Linux Magazine and several other magazines. He lives with his wife in the Eindhoven region and if he's not busy working or writing, he can be often found in the local cinema.

## **Real-Time Linux**

In this presentation, Klaas will shortly introduce the need for a patch to make Linux hard real time. He'll explain what went into this patch and the current state of integrating this patch into the mainstream Linux kernel. Klaas then address the expected usage of the RT features and common user misunderstandings and mistakes.

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## **Adriaan de Groot**

no biography submitted

## **KDE4 Technology Preview**

De KDE4 ontwikkelomgeving is nu stabiel, en de eerste developer preview is in November 2006 uitgegeven. In dit praatje zullen we laten zien hoe het er uit ziet, hoe de API in elkaar zit en wat de componentenarchitectuur is geworden. We zullen ook enige aandacht besteden aan de nieuwe IPC infrastructuur waardoor andere applicaties beter kunnen integreren met de KDE desktop en communiceren met KDE applicaties.

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## **Sven Guckes**

Sven Guckes, \*1967, he studied maths and comperscience at the Free University Berlin. He

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supports Free Software, has talked at several events in Denmark, Netherlands. Further classifications for him are: Texttools geek, freelancer, lives in Berlin.

## Advancing the Text Interface

Almost every interactive program offers another kind of interface. Some of these you can see in almost every program: dialogs with many buttons, prompts for texts, menus and submenus - some with keyboard shortcuts for commands.

However, some of them seem to be quite seldom, eg internals command lines, and fast switches. This is a (small, well, growing) overview to some of these ideas, both with a description and example, either as text or as a screenshot. And then some more.

Some ideas on interfaces mostly to be applied for programs running in terminals which I call them "texttools".

Texttools usually are perceived as outdated programs because of their text interface. But I claim that these tools are here to stay with us for a very long time, if not forever!

Hopefully these ideas will be implemented with more programs - texttools or gui.

Mind you:

- This is not about any special programming language.
- This is about \*concepts\*!

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## Philip van Hoof

Philip is a Belgian consultant software developer. He is the author of the tinymail E-mail framework. This framework is used by Nokia, who is developing a new E-mail client for their N770 device. He also is the maintainer of a few other free software projects, and he contributes to some free software projects as well. He is fond of using modern development techniques, such as design patterns. He used these techniques to design the tinymail framework.

## Building an e-mail client for mobile devices

Mobile devices are different from desktop systems. Often they don't have a lot of memory, a small, slow disk and a less powerful CPU. When aggressively using the hardware, a mobile device typically consumes more battery.

How do we build an E-mail application that supports storage providers like IMAP, POP3 and Exchange that will run such a mobile device? And not just build one that can display reasonable sized E-mail folders. No, how do we build one that can show large such E-mail folders, but doesn't use a lot memory nor CPU?

Tinymail today is a framework for creating such E-mail applications. The reason tinymail is marketed as a framework rather than a standalone application, is because most mobile devices

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have unique screen sizes and because there's a lot variance in things like the HTML widget and the user interface toolkit. Tnymail today can show a summary of an IMAP folder that contains 26,000 messages using less than six megabytes of RAM.

This talk is about how I designed tnymail. I will show things like the proxy design pattern. The idea is more to talk about using abstract/high level programming techniques than to discuss/talk about tnymail specifically. But tnymail will certainly function as an example.

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## **Gerwin van der Kruis**

No biography submitted

### **Hacking hardware**

No short abstract submitted

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## **Sebastian Kuegler**

Originally from Germany, Sebastian Kuegler studied Business Administration at the University of Nijmegen in the Netherlands. He is currently employed by the Department of Computer Science at the same university where he works on two Open Source related projects. He is researching quality metrics to form a European standard for Open Source software services and in another project, CodeYard, he is guiding secondary education students into the world of Open Source software development by participating in an Open Source digital schoolyard.

Sebastian set up the KDE Marketing Working Group during last summer's KDE world summit in Malaga, Spain and has since then become one of the thought leaders in marketing the free desktop. Areas of interest of this work range from coordination of existing activities over relationship management to scientific marketing research. On the technical side, Sebastian works on the guidance system administration tools that are being shipped with Kubuntu Linux.

### **KDE4 - The future of the Free Desktop**

This year K Desktop Environment celebrates its tenth anniversary. In the last ten years, it has matured and become a first class choice as a working environment for home as well as corporate users.

After the release of Qt4, the GUI library used for KDE, last year, the KDE community is now heading towards its fourth major version. KDE4 will revolutionise the way the Free Desktop works. Big leaps in usability, visual appearance and support make this release the next milestone of the Free Desktop.

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This wealth of new technology not only appeals to users, but also stresses KDE as a powerful platform for software development. KDE4 is built upon a number of so-called "pillars of KDE4", amongst others:

- Qt4, the GUI and graphics library
- Plasma, the desktop and workflow engine
- Phonon, the multimedia framework
- Solid, taking care of hardware integration into the desktop
- Decibel, the communication framework
- DBus, the inter process communication technology
- Akonadi, the personal information storage service

This presentation will outline the technology making KDE4 a unique desktop. It will give an overview of the pillars of KDE4, explain their meaning. Furthermore, the presentation will give insight in how the KDE community works.

## CodeYard - Scholier en Open Source

Afgelopen jaar ging het CodeYard project van start. CodeYard biedt studenten van middelbare scholen de mogelijkheid om projectmatig aan Open Source software te werken, en biedt op die manier en instap in de wereld van programmeren en Open Source. CodeYard is een soort digitaal schoolplein, waar scholieren zich kunnen aanmelden en in groepen aan programmeerprojecten werken. Zij delen hun broncode en projectbestanden via Subversion, een modern versiebeheersysteem, kunnen op de CodeYard infrastructuur een website aanmaken en via het forum communiceren. Vorig jaar konden scholieren die aan CodeYard meededen zelfs iets winnen: de Capgemini Open Source award ter waarde van 5000 EUR voor het beste project ging aan een groep scholieren die een webgebaseerd authenticatiesysteem ontwikkeld en geïmplementeerd hebben. Andere projecten zoals webwinkels en computerspellen geven evenwel blijk ervan dat bij scholieren ruimschoots talent aanwezig. Volgend jaar gaat CodeYard zijn tweede jaar in. In deze presentatie wordt het CodeYard project, de aanpak ervan en een aantal behaalde resultaten gepresenteerd.

CodeYard is een initiatief van de Radboud Universiteit Nijmegen, in samenwerking met NLnet, IBM en Capgemini. Meer informatie geeft de website van het project, [www.codeyard.net](http://www.codeyard.net).

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## Geert Vanderkelen

"Geert Vanderkelen is a member of the Support Team at MySQL AB. He is based in Germany and has worked for MySQL AB since April, 2005. Before joining MySQL he worked as developer, DBA and SysAdmin for various companies in Belgium and Germany. Today Geert specializes in MySQL Cluster and works together with colleagues around the world to ensure continued support for both customers and community."

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## MySQL Cluster Intro & Usage

Introduction to MySQL Cluster with some technical details and examples of applications for which it can be useful.

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## Bruno Lowagie

Bruno Lowagie is the initial developer and one of the current maintainers of iText, a free Java-PDF library. He works as a developer for the ICT department of Ghent University, Belgium. Last year he wrote a book for Manning Publications, titled iText in Action. Bruno lives in Ghent (Belgium) with his wife and two sons.

## iText, a Free Java PDF Library

Recently iText was called one of Java's best-kept secrets. Granted, when it was first published (in 1999) the library was only used in a very specific niche. It was developed at a Belgian University, with the financial and the energy sector as first adopters. These first users needed an alternative for Apache FOP, especially in those cases where speed and performance were an issue, or if the resulting PDFs were expected to have thousands of pages.

Nowadays, iText is used as the PDF engine in the most popular Java Open Source Business Intelligence and Reporting Tools: JasperReports, Pentaho (along with FOP), and Eclipse/BIRT. Google uses iText to generate the printouts of your calendar sheets in Google Calendar. Even the inventor of PDF, Adobe Systems, ships iText with its (formerly Macromedia's) Cold Fusion Server.

Above all iText is a library that allows developers to extend the capabilities of their web server (and other JAVA) applications with dynamic 'on-the-fly' PDF document generation.

In this demo, Bruno Lowagie will present his brandnew book 'iText in Action' written for Manning Publications Co. The book tells us the story of a developer, discovering some of PDF's best-kept secrets. These secrets will be revealed by Bruno himself and Paulo Soares, the main developer of iText:

- Serve dynamically generated PDF to a web browser.
- Generate documents and reports based on data from an XML file or a database.
- Create maps and e-Books, exploiting numerous interactive features available in PDF.
- Add bookmarks, page numbers, watermarks, and other features to existing PDF documents.
- Split and/or concatenate pages from existing PDF files.
- Fill out forms; add digital signatures, and much more besides.

During this session, you'll learn to stop worrying, and love PDF.

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## Cor Nouws

Cor Nouws (1959) did automation for years in an MsOffice environment. Furthermore he has worked as project- and officemanager. Early 2004 he started Nou&Off, a firm dedicated to support OpenOffice.org and StarOffice.

## Open Office macros development

Scripting in OpenOffice.org gives a lot of possibilities. There is a full API available, and languages as Python, StarBasic and Java may be used. Also the OpenOffice.org-project recently made improvements in the integration of Extensions. This workshop gives examples, information about main differences with VBA, and about useful tools.

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## Marvin Raaijmakers

Marvin Raaijmakers is a first year informatics student at the University of Technology in Eindhoven (TU/e), who is interested in science and Open Source. He started programming at the age of 13. When he was 14/15 years old, Marvin downloaded a live cd and felt in love with GNU/Linux. At that moment he started to learn the programming language C and also started to take programming more serious.

## KeyTouch

In May 2004 Marvin bought a new keyboard that had extra function keys (for example for starting a web browser). Because there was no software included with the keyboard to get the keys working under GNU/Linux, he started to develop keyTouch. This program should make it possible for the average PC user to easily specify what happens when such extra function key is being pressed. Nowadays keyTouch is getting more and more popular and is being downloaded about 1,500 times per month from SourceForge.net. The development of keyTouch is Marvin's primary activity in the Open Source community, an activity that he takes very serious.

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## Matt Rechenburg

Matthias Rechenburg is the author and project manager of the openMosixview- and kiscsiadmin project. Since many years he is involved in all kinds of data-center related open-source projects like high-performance and high-availability clustering, consolidation, network and enterprise storage management. Currently, his most serious interests are about the virtualization technologies, their features and capabilities and their integration by a unified virtualization layer. He lives in Bonn, Germany, and is working as a freelancer developing for Qclusters, actively maintaining some of the openQRM internals and plug-ins. Mostly, he enjoys to code in his home-lab but also likes traveling, meeting other linux-people and joining all kinds of linux-related

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events. He is a frequent speaker at different conferences (linuxtag, linux-kongress, Fosdem, Sane, linuxdays, etc.)

## Managing enterprise data-centers with openQRM

High-availability, scalability, fast and flexible deployment, service- and server-virtualization are the most serious key-parameters for modern, enterprise data-centers today. This new, open-source projects intentions is to combine and integrate all kinds of useful system management tools within a unified and generic data-center management User-interface.

openQRM is an open source system management platform which integrates existing components to manage enterprise data centers efficiently. Its architecture extends to and embraces other existing data center technologies through plug-ins. The out-of-the-box functions include, but are not limited to, provisioning, monitoring, reporting and high availability. Other functionality and integration with third-party software like VMWare, Xen, Linux-VServer and Qemu as partitioning technologies, ldap-Authentication, Iscsi (booting from Iscsi-targets) and more are available.

openQRM manages physical servers and virtual machines, seamlessly and automatically. It assigns server-resources to applications according to defined policies, dynamically adjusts the amount of allocated servers according to actual usage and provides high availability for enterprise services and applications. A secure web interface, which provides easy management and control, combined with powerful command line tools allows to deploy servers and services with a single mouse-click. In the openQRM-server a generic, logical layer, called partition engine, conforms all different kinds of virtualization technologies. This partition-engine provides a virtualized server-resource from the type partition which is then used in the same way as a physical system.

This presentation deals with common aspects and features of openQRM and gives a detailed overview of its capabilities and flexibility in managing enterprise data-centers. It covers its open-source license model and the community, build- and installation of the openQRM-server, management of the available resources, provisioning and high-availability, explains the pluggable architecture and gives examples how various plug-ins are enhancing the functionality of the server and GUI.

- [openQRM Home page](#)
- [openQRM Project page](#)

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## Martijn Rutten

Martijn Rutten is a System Architect in the Chief Technology Office (CTO) of NXP Semiconductors, Eindhoven, The Netherlands. Currently, he is responsible for streaming software and related tooling for audio processing in car-infotainment devices and mobile phones. From 1998 to 2004, Martijn worked at Philips Research Laboratories on multi-processor architectures for television and storage products. In 1998, he obtained his MSc. in Electrical Engineering from Eindhoven University of Technology. His interests include embedded system architecture, media processing,

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hardware/software codesign, and system-level design methodology. Contact him at [martijn@martijnrutten.com](mailto:martijn@martijnrutten.com)

## **TimeDoctor – Use the strength of Eclipse to visualize (multi)processor execution behavior**

The open-source Eclipse platform offers a flexible and extensible development environment with a unified interface for code development, debugging, build and version management, etc. NXP Semiconductors is now embarking on this de facto industry standard to offer its customers a state-of-the-art and complete integrated development environment.

This presentation aims to smoothen Eclipse' relatively steep learning curve by sharing experiences in building an Eclipse extension or so-called Plug-in. We show a real-life example of the application of such plug-in based on the TimeDoctor open source project:  
<http://www.sourceforge.net/projects/timedoctor>.

TimeDoctor is a tool to visualize (multi)processor execution traces of tasks, queues, cache behavior, etc. The tool provides insight in the execution behavior of an embedded system. This helps the system designer to integrate individual hardware and software components in a (multi)processor setting while at the same time handling real-time requirements. TimeDoctor was originally targeted at embedded media processors and therefore includes specific features for analyzing audio/video streaming applications but has wider applicability.

In time, NXP Semiconductors will fully replace the existing proprietary TimeDoctor tool with its Eclipse-based open source counterpart, with a first release planned end 2006. NXP Semiconductors will contribute TimeDoctor under the Eclipse public license and welcomes contributions to the project. The tool offers an excellent opportunity for student projects to gain experience in Java, Eclipse, GUI programming, and processor performance analysis applied in an industrial setting.

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## **Jean-Paul Saman**

Jean-Paul Saman is a consultant, senior software architect and engineer with 10 years of experience in developing multimedia, embedded and networking systems. He has worked for various companies in Research and Development jobs as well as in productizing software. Since August 2004 he works for his own company M2X, that provides commercial services for Multimedia, Networking and Embedded systems using Open Source software. Furthermore he actively contributes to Open Source Software projects such as: "Das Universal bootloader" (u-boot), VideoLAN project and sometimes the Linux Kernel.

## **Streaming networks with VLC**

The VideoLAN project started at L'Ecole Central des Paris in 1996. Its goal was to develop high quality streaming for the Campus network. In 2001 the project went Open Source. Since then a

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complete High Quality Streaming solutions was available under the GPL. In this presentation VLC is used to setup a broadcast, unicast, multicast and Video On Demand network. Streaming multimedia content over a network is full of challenges. Firewalls can be in the way, network equipment has limited capabilities (cheap routers don't support multicast). Having a 100 Mbps network card (NIC) doesn't automatically mean the network is configured to use all of it

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## David Sugar

I am an active maintainer for a number of packages that are part of the GNU project, including GNU Common C++, GNU ccScript, GNU ccRTP, and GNU ccAudio, as well as the GNU telephony application server, GNU Bayonne. I have served as the voluntary chairman of the FSF's DotGNU steering committee (<http://www.dotgnu.org>), and as the communities elected representative to the International Softswitch Consortium

## GNU Telephony

Free and Open Source software has made major advances in many fields of computer science. One area is in Telephony, both for current and next generation VOIP networks. I will be discussing one particular project in this regard; GNU Telephony, which is a meta project that organizes telephony related packages within the GNU Project. This meta project includes the GNU Bayonne telephony server, the Nijmegen streaming media server, the GNU Common C++ libraries and ccRTP stack, and other associated efforts.

In the broader aspect of GNU Telephony work in VOIP, I will discuss our goals for improving voice and audio quality, using free software. In particular, this involves our focus on smart endpoint peers rather than spoke-wheel IP PBX architecture, in part for reducing latency, and also related recent experiments in generating false stereo audio to enable more comfortable multi-party conferencing by mixing at the endpoint clients, and related developments in GNU Telephony Open Embedded, which will also be discussed. Some of this may be demonstrated live.

I also will explain our vision for developing community telecenters and other applications which serve public interests within GNU Telephony, as well as how we put our various components and libraries together to produce comprehensive telephony solutions and telephony enable existing free software packages. In part this will be demonstrated through the use of new integrated webservices which are being actively developed.

I will of course also discuss the latest releases of the GNU Telephony server, GNU Bayonne, and how it is used to build things ranging from anonymous public voice relay sites, to telecenters, and XML integrated voice response application services that can be deployed using web servers and BayonneXML. I will also talk a little about how we relate Internet radio, video, and media in general to telephony, and the role of the new Nijmegen server in GNU Telephony.

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Technical Dutch Open Source Event ([www.t-dose.org](http://www.t-dose.org))

## Martin

Martin heeft na een loopbaan binnen de IT-dienstverlening, in de olie-industrie, de (semi)overheid, en banken en verzekeraars, Webhuis opgericht. De activiteiten van Webhuis zijn gericht op het verlenen van diensten op het gebied van toepassing van open standaarden en open source software voor bedrijven en professionele instellingen. Migraties naar Open Source Software behoren nadrukkelijk tot het aanbod van Webhuis.

## Migrating Exchange to a Linux Solution

The presentaiton talks about the process of migrating exchange servers to a Linux based solution. The problems you'll encounter, the challenges to take and obstacles to conquer.

Open Xchange als onderdeel van de Open Source Migratie bij een landelijk werkende welzijnsorganisatie. De posts op Internet over migraties uit Microsoft Exchange hebben de volgende klank: **Afblijven! Niet doen!**

Webhuis heeft eerst een Samba / LDAP omgeving opgezet. Open Xchange maakt gebruik van deze nieuwe omgeving. De migratie kent de volgende stappen:

- 1. Inrichting Open Xchange
- 2. Export data uit Exchange
- 3. Import data in Open Xchange

Elk van de stappen is lastig gebleken en de presentatie gaat over de problemen en de gevonden oplossingen.

- ad 1. De inrichting is complex en specialistisch.
- ad 2. De exchange database was oud en vervuild, volledige export met de beschikbare tooling was onmogelijk.
- ad 3. De geplande geleidelijke overgang naar Open Xchange bleek onmogelijk en restte een Big Bang scenario.

In de presentatie geven wij verslag van deze operatie.

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## Y.S. Usenko

Dr. Y.S. Usenko (Yarick) was born on 22-10-1975 in Kiev, Ukraine. In 1990-1992 he studied at Natural Science Kyiv Lyceum #145. He received his masters degree in computer science from Taras Shevchenko University of Kyiv in 1997, and his Ph.D. degree in computer science from Technical University of Eindhoven in 2002. In 1996-1997 he was a fellow at the United Nations University / International Institute for Software Technology (UNU/IIST) in Macau. In 1998-2002 he worked at the Center for Mathematics and Computer Science (CWI), as a project researcher. In 2002-2004 he worked at the Formal Methods and Tools Group, University of Twente as a PostDoc. Since 2004 he works at Laboratory for Quality Software (LaQuSo), Technical University

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of Eindhoven, as a researcher and software engineer.

His research interests are in formal methods in software engineering, software verification and validation methods, process algebra, and in industrial applications of these. He has participated and taken part in organization of several European and Dutch research projects.

## **Ir. J van der Wulp**

Ir. J van der Wulp (Jeroen) was born on 01-11-1979 in Nuenen, the Netherlands. From 1999 to 2005 he studied at the Eindhoven University of Technology (TU/e), where he received a master's degree in Computer Science. Ever since he has been working with the OAS group at the Mathematics and Computer Science department of the TU/e, where he has been active as a software engineer on the AIMES (Architectural Modeling of Embedded Systems) project. As part of his work he is responsible for most of the organisational aspects around the mCRL2 toolset (e.g. ensuring the toolset can be built on all supported platforms).

### **mCRL2 Toolset: an open-source tool for verification of software systems.**

In this talk we will explain what mCRL2 (mili Common Representation Language 2) is and how it is used for verification of software and other systems. We will also present the architecture of the toolset, the technologies and the libraries that are used in it and the way it is built to work on different platforms.

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## **Frank Weyns**

Frank Weyns is the Technology Development Manager at Red Hat. He works together with enterprises to implement Linux in large scale deployments.

### **Virtualization and clustering: Improving High-availability**

By using virtualization and clustering we can increase the high availability of our services and applications. A discussion how to use these tools and create flexible large enterprise infrastructures.

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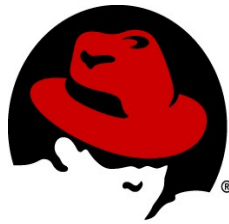
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