



# Free /Libre Open Source Software: a guide for SMEs

## Software catalog

Report edition: 1.8, December 2007  
released under CC license Attribution-Sharealike 2.5  
Report edited by : Carlo Daffara, [cdaffara@conecta.it](mailto:cdaffara@conecta.it)  
Created in the context of the  
FLOSSMETRICS and OpenTTT EU projects  
Website: [www.flossmetrics.eu](http://www.flossmetrics.eu)  
[www.openttt.eu](http://www.openttt.eu)



# Free/Libre Open Source Software: a guide for SMEs

## Software catalog

Report edition: 1.8 December 2007 released under CC license Attribution-Sharealike 2.5, <http://creativecommons.org/licenses/by-sa/2.5>.  
Report edited by : Carlo Daffara, email: [cdaffara@conecta.it](mailto:cdaffara@conecta.it) Document page: <http://guide.conecta.it>  
Created in the context of the FLOSSMETRICS and OpenTIT EU project; project websites: [www.flossmetrics.eu](http://www.flossmetrics.eu) [www.openttt.eu](http://www.openttt.eu)  
Cover image by Sven Geier, <http://www.sgeier.net/fractals/>

# Table of Contents

Introduction.....	3
Infrastructural software.....	5
ERP/CRM.....	23
Groupware.....	35
Document management.....	46
Content management systems.....	50
VoIP, conferencing and messaging.....	54
Graphics and CAD.....	59
Desktop.....	67
Engineering and manufacturing.....	71
Vertical business applications.....	81
Elearning applications.....	91

# Introduction

This software catalog is a companion document of the FLOSS guide for small and medium enterprises prepared in the context of the FLOSSMETRICS EU project; it is based on the work of the Innov7 OpenTTT project ([www.openttt.eu](http://www.openttt.eu)), that helped in the identification of needs through a large number of interviews and audits within European SMEs interested in FLOSS. Within the project we identified two main areas of interest: horizontal (expressed by companies across a wide range of industry domains, like ERP systems or security software) and vertical (specific to a single industry area, like machine maintenance). As one of the hurdles identified by SMEs in the FLOSS adoption process is the identification of suitable solution, we have collected a sample of applications in the following areas:

- infrastructural software: tools and applications for the management of system and networks, security, digital identity and provision of basic services like backups and remote computing
- ERP/CRM: business management, including specialized modules like warehouse management and production planning, and customer relationship management
- groupware: Email, groupware, calendaring and project management

- document management
- CMS: content management systems for web sites
- VoIP (voice over IP), conferencing, instant messaging
- graphics/CAD (computer aided design)
- desktop applications and platforms
- engineering and manufacturing related applications
- vertical business applications and data exchange
- e-learning applications

This catalog should be considered just a way to provide potential users initial suggestions, and in no way it can be considered exhaustive; the inclusion of a project should not be seen as a specific endorsement by the Commission or the FLOSSMETRICS and OpenTTT project. The text and images are from the respective projects whenever available, otherwise text and screenshots were prepared by the author. We welcome any addition and suggestion, both in terms of changes to existing descriptions and new additions. The preferred format is a half or full page text with one or two screenshots of sufficient resolution for the printed media; text should present actual capabilities of the software presented in its open source form (for software that is available in a FLOSS version and a commercial one) in the available version. Changes should be submitted to the author, at the email address [cdaffara@conecta.it](mailto:cdaffara@conecta.it) ; future versions will be released at the address <http://guide.conecta.it/>

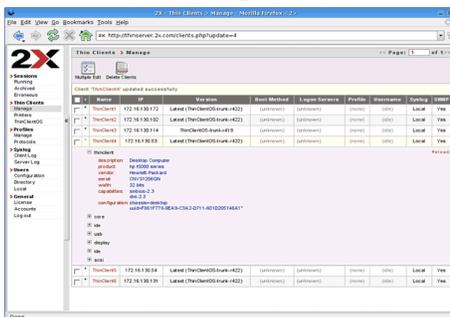
# Infrastructural software

## 2X terminal server

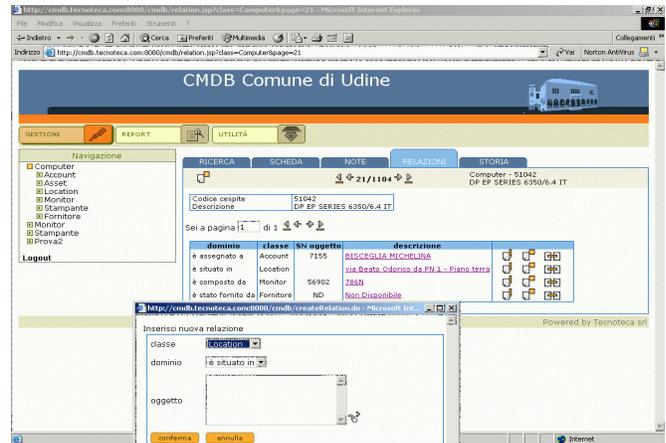
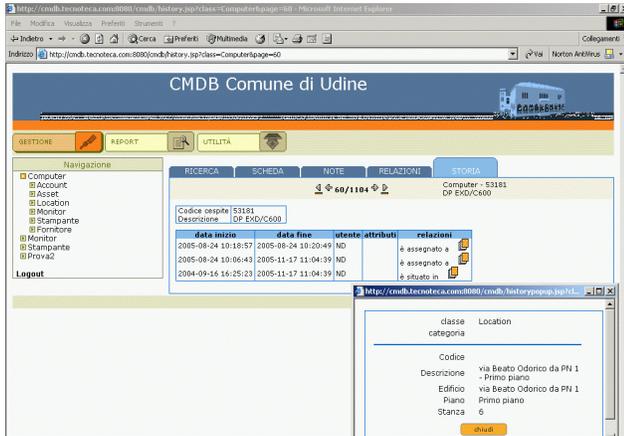
<http://www.2x.com>

2X ThinClientServer PXES edition makes the move to thin client computing easy by delivering a solution to convert existing PCs to thin clients and centrally manage thin client devices from any vendor (HP, Neoware, Wyse, Maxspeed and more). User's connection & device hardware settings (RDP / NX, screen size, Applications that users have access to, Terminal Servers and VMware virtual desktops) can be controlled centrally by device, user, group or department (Active Directory / LDAP) via the web based interface. 2X ThinClientServer PXES edition is the next generation of PXES 1.0, the popular free Linux thin client OS. The new version of PXES incorporates the Linux thin client OS, and also includes a server to allow for central configuration & management of the thin clients. Among the features:

- Converting existing PCs to thin clients
- Manage users' connection settings centrally by user, group or department
- Limit users to 2X published applications rather than giving access to a whole desktop
- Thin client vendor independent: Manage any thin client / PC centrally
- Supports virtually all thin clients and computer hardware
- Multiple full desktops per ThinClient
- Support for printer and sound redirection in 2X published applications
- Hotplugging engine support
- ThinClientOS diagnostic tools
- Automatic update notification



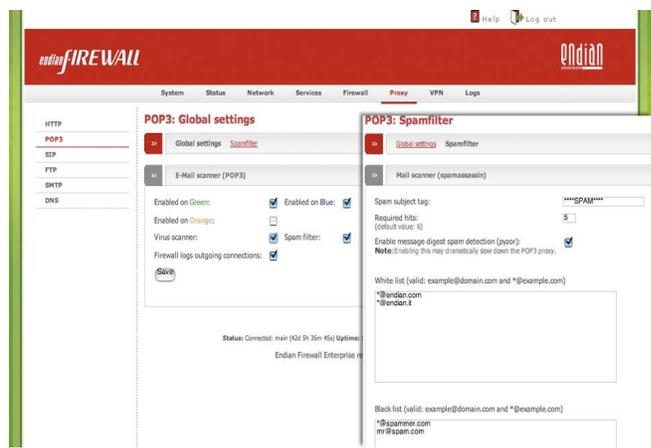
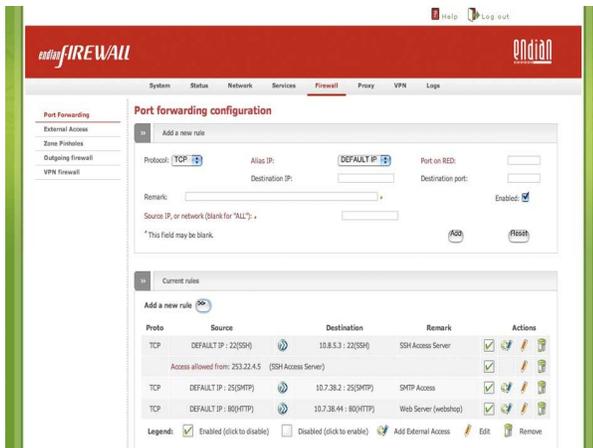




## Endian

<http://www.endian.com>

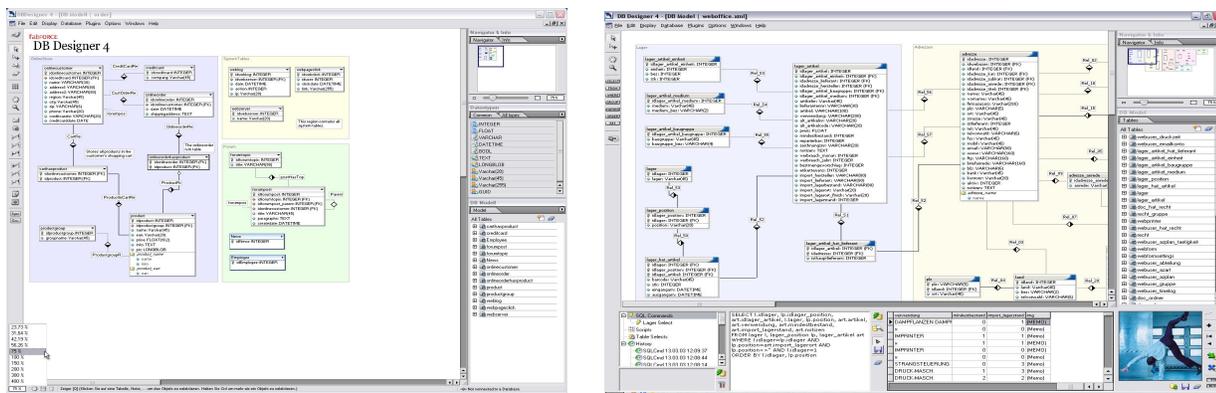
Endian Firewall Community is a "turn-key" linux security distribution that turns every system into a full featured security appliance. The software has been designed with "usability in mind" and is very easy to install, use and manage, without losing its flexibility. The features include a stateful packet inspection firewall, application-level proxies for various protocols (HTTP, FTP, POP3, SMTP) with antivirus support, virus and spamfiltering for email traffic (POP and SMTP), content filtering of Web traffic and a "hassle free" VPN solution (based on OpenVPN). The main advantage of Endian Firewall is that it is a pure "Open Source" solution that is sponsored by Endian.



## DBDesigner4

<http://fabforce.net/dbdesigner4/>

DBDesigner 4 is a visual database design system that integrates database design, modeling, creation and maintenance into a single, seamless environment. It combines professional features and a clear and simple user interface to offer the most efficient way to handle your databases. DBDesigner 4 compares to products like Oracle's Designer, IBM's Rational Rose, Computer Associates's ERwin and theKompany's DataArchitect but is an Open Source Project available for Microsoft Windows 2k/XP and Linux KDE/Gnome. It is release on the GPL. Starting from a reverse engineering engine to automatically retrieve a model from existing databases, extensive modeling tools and editors to a synchronisation function which will apply model changes automatically to the underlying database - it is all part of DBDesigner 4. DBDesigner 4 supports two switchable userinterfaces. The Design Mode is used to create and maintain the visual databases model. The Query Mode is used to work with table data and build complex SQL query statements for the use in PHP, Kylix or another programming language.



## Enomalism

<http://www.enomalism.com/>

The Enomalism Virtualized Management Dashboard (VMD) is a powerful web-based virtual server manager. Designed to answer the complexity of managing globally disperse virtual server environments. Enomalism helps to ease the transition to a virtualized environment by reducing an IT organizations overall workload. The easy to use dashboard can help with issues including deployment planning, load balancing, automatic VM migration, configuration management, and capacity diagnosis. Similar to VMware's Vmotion, Enomalism supports live relocation and dynamic memory control for virtual machines using Intel Virtualization Technology (Intel VT) or AMD Virtualization (AMD-V) hardware-assisted virtualization, which enables dynamic resource scheduling and “no-downtime maintenance” of Microsoft Windows-based virtual infrastructures. The Enomalism simple firewall allows you to assign your virtual machines resources to user-defined groups and define firewall rules in terms of these groups and end usage. As VM resources are added to or removed from groups, the appropriate rules are enforced. Similarly, if a group's rules are changed these changes are automatically applied to all members of the affected group. Perfect for diverse & geographically disperse hosting environments.

## FederID

<http://federid.objectweb.org/xwiki/bin/view/Main/>

The FederID project aim to offer a real solution of Identity Management and Identity Federation. It is based on several OSS components:

- InterLDAP: Based on J2EE and OpenLDAP, InterLDAP makes it possible to manage the complete cycle of an identity through its attributes, its accesses and its prerogatives. It is the essential tool to provide an advanced interface of consultation and administration of an LDAP directory
- LASSO: Lasso is a free software C library aiming to implement the Liberty Alliance standards; it defines processes for federated identities, single sign-on and related protocols. Lasso is built on top of libxml2, XMLSec and OpenSSL and is licensed under the GNU General Public License (with an OpenSSL exception)
- Authentic: Authentic is a Liberty Alliance Identity Provider. It provides Single Sign-On (SSO), Single Logout (SLO) and attributes sharing
- LemonLDAP: The LemonLDAP project is a reverse proxy SSO developed with the French Ministry of Finances under GNU GPL license. LemonLDAP is a network service which is a single entrance point of all HTTP requests aimed to the various protected Web applications. With the help of an LDAP directory, it offers a single mechanism of authentication and access control to these applications

## FirebirdSQL

<http://www.firebirdsql.org>

Firebird is a relational database offering many ANSI SQL standard features that runs on Linux, Windows, and a variety of Unix platforms. Firebird offers excellent concurrency, high performance, and powerful language support for stored procedures and triggers. It has been used in production systems, under a variety of names, since 1981. The Firebird Project is a commercially independent project of C and C++ programmers, technical advisors and supporters developing and enhancing a multi-platform relational database management system based on the source code released by Inprise Corp (now known as Borland Software Corp) on 25 July, 2000.

## FreeSignature

<http://savannah.nongnu.org/projects/freesignature/>

FreeSignature is an free project for the digital signature of documents. It works with all cards supported by OpenSC and focuses on adding support for cards from accredited Italian CAs. The goal of the project is to provide a first single product capable of supporting cards from multiple vendors/countries. This contrasts the

approach taken by card vendors/providers whose software follows an exclusive single-vendor approach. FreeSignature thus attempts to make a major contribution to interoperability in the digital signature domain and aims to greatly facilitate the setup of public access points that are currently the objective of several projects in Italy. Moreover, we hope that the peer-review of the free software approach will allow us to at least match the security level of competing single-card software.

### HardTokenManagement

<http://hardtokenmgmt.org/>

HardToken is an Hard Token Management Framework in Java used to manage the complete lifecycle of an organizations smartcard and/or USB dongles. It communicates with the tokens through a PKCS11 interface so it is possible to change hardware as long as they supply it with a good implementation of PKCS11. It comes along quite with a few ready made modules that can be composed to fit the need of the organization. The Hard Token Management Framework is an Add-on to EJBCA Certificate Authority; the current application suite of modules using the hard token management framework 'ToLiMa' have the following features.

- Issue tokens, regular, temporary and project
- Unlock PIN of a token without exposing the PUK code for the users or administrators
- Revoke lost cards
- Renew expiring cards
- Activate cards in the organizations systems
- It is also possible to issue and unlock tokens on an approval basis, used in scenarios where no token administrator is available (for instance in 24/7 operational environments). Then it is possible for a colleague of the end user to generate a request of the action which is sent to a central support unit for review and approval.



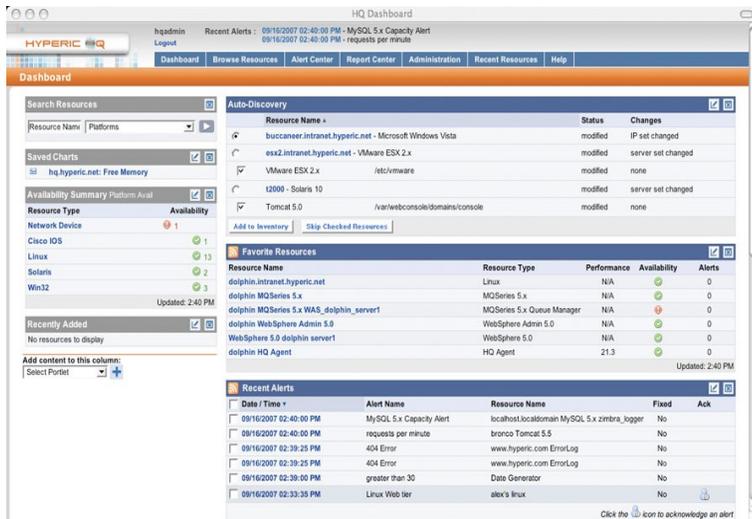
### Hyperic

<http://www.hyperic.com/>

Hyperic HQ is the industry's only comprehensive product that provides cross-stack visibility for software in production, whether it's open source, commercial, or a hybrid. As a result, companies can now centrally manage the fast-moving technologies of the Next Generation Data Center, and more efficiently and effectively avoid costly downtime. An extensible system, Hyperic HQ manages all kinds of operating systems, web servers, application servers and database servers. Using the Hyperic HQ Portal, the software can be quickly configured to monitor, alert, diagnose and control most types of applications. Key benefits include:

- Auto-Discovery of asset inventory with one click
- Monitors metrics of 65+ technologies across 9 OSes
- Tracks performance, configuration and security changes
- Maximizes availability with alerting and corrective control actions to address problems before they occur
- Extends, Customizes to best manage your unique environment needs
- Accurately model and display relationships between your hardware, software, and services
- Detect every aspect of your hardware and software automatically, including memory, CPU, disk & network devices, and version & configuration information
- Generate events about any change in configuration or key attributes of any managed resource and use it to alert IT administrators
- Check the health of your hardware and software resources from a single, easy-to-navigate view
- Collect real-time and historical metrics from production hardware, network and application layers of your infrastructure without invasive instrumentation
- Define intelligent alerts which help you anticipate problems before they cause outages
- Compare and correlate metrics for different resources with customizable indicator views that help you understand interactions between them
- Chart key metrics for resources and groups in a single view to quickly assess the state of your environment

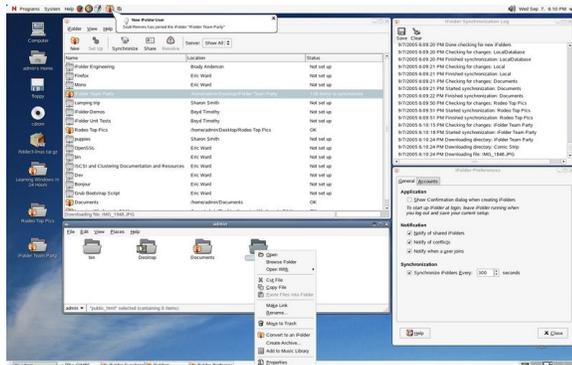
- Report real-time and historical details of any log event generated by any managed resource
- Track the configuration of any host or application to facilitate impact analysis and change control
- Enforce security policies by detecting and logging any physical or remote access into any host in your environment
- Define alerts to track to specific log messages anywhere in your environment
- Correlate any log event, configuration change, or security event to the availability of your environment



## iFolder

<http://www.ifolder.com>

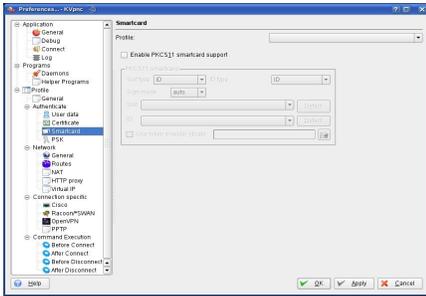
iFolder is a simple and secure storage solution that can increase your productivity by enabling you to back up, access and manage your personal files—from anywhere, at any time. Once you have installed iFolder, you simply save your files locally—as you have always done—and iFolder automatically updates the files on a network server and delivers them to the other machines you use.



## KVPnc

<http://home.gna.org/kvpnc/en/index.html>

KVPnc is a KDE Desktop Environment frontend for various vpn clients. It supports Cisco VPN (vpnc), IPsec (FreeS/WAN , Openswan, strongSwan, racoon), PPTP (pptpclient), OpenVPN, L2TP (FreeS/WAN, Openswan, strongSwan, racoon) and smartcard support (OpenVPN, strongSwan).

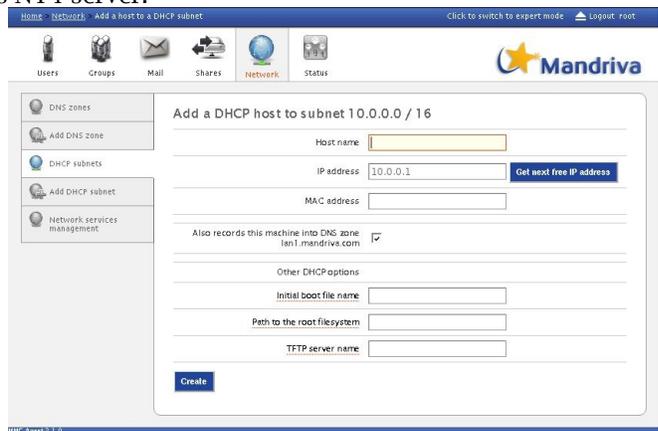


## Mandriva directory server <http://mds.mandriva.org/>

Mandriva Directory Server is an enterprise directory platform based on LDAP designed to manage identities, access control informations, policies, application settings and user profiles. The Mandriva Directory Server (MDS) is a Free Software project that features:

- user authentication and management thanks to LDAP and Kerberos
- an extensible, nice looking and AJAX powered PHP web interface called MMC (Mandriva Management Console), provided with 6 modules:
  - Users and groups management
  - SAMBA accounts and shares management
  - Printing management
  - Email delivery management
  - Web proxy blacklist management
  - Open-Xchange users management
- a Python dedicated management API for LDAP, SAMBA, Open-Xchange and SQUID (core of the MDS and the MMC)
- a policy system, that will allow to define users right on network ressources

Thanks to the MMC, the MDS can fully replace a Windows NT4 server.



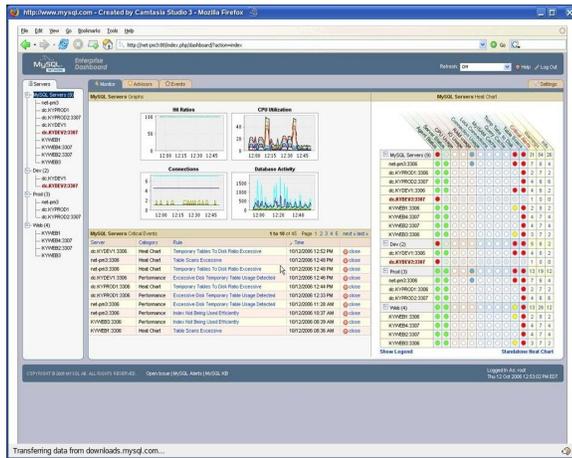
## MySQL <http://www.mysql.com/>

The MySQL database has become the world's most popular open source database because of its consistent fast performance, high reliability and ease of use. It's used on every continent -- Yes, even Antarctica! -- by individual Web developers as well as many of the world's largest and fastest-growing organizations to save time and money powering their high-volume Web sites, business-critical systems and packaged software -- including industry leaders such as Yahoo!, Alcatel-Lucent, Google, Nokia, YouTube, and Zappos.com. Not only is MySQL the world's most popular open source database, it's also become the database of choice for a new generation of applications built on the LAMP stack (Linux, Apache, MySQL, PHP / Perl / Python.) MySQL runs on more than 20 platforms including Linux, Windows, OS/X, HP-UX, AIX, Netware, giving you the kind of flexibility that puts you in control. Among the features:

MySQL Enterprise Server 5.0 delivers new enterprise features, including:

- ACID Transactions to build reliable and secure business critical applications

- Stored Procedures to improve developer productivity
- Triggers to enforce complex business rules at the database level
- Views to ensure sensitive information is not compromised
- Information Schema to provide easy access to metadata
- Distributed Transactions (XA) to support complex transactions across multiple databases
- Pluggable Storage Engine Architecture for maximum flexibility
- Archive Storage Engine for historical and audit data
- Federated Storage Engine to create a single logical database from many physical servers
- Emergency Hot Fix Builds



## Nessus

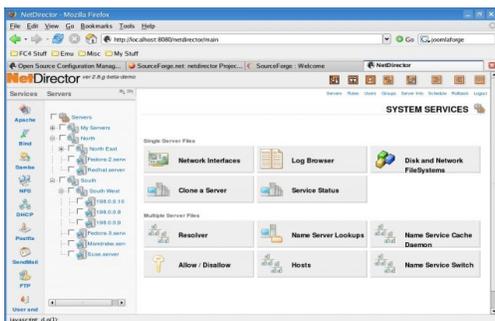
<http://www.nessus.org/download/>

The Nessus vulnerability scanner, is the world-leader in active scanners, featuring high speed discovery, configuration auditing, asset profiling, sensitive data discovery and vulnerability analysis of your security posture. Nessus scanners can be distributed throughout an entire enterprise, inside DMZs, and across physically separate networks. While version 3 is distributed with a commercial license, version 2 is still available under the GPL.

## NetDirector

<http://www.netdirector.org>

NetDirector is a client-server application that allows you to simultaneously manage a large number of servers from a single web browser running on any platform. The NetDirector Server Manager web user Interface uses AJAX (asynchronous javascript and XML) to give the same rich client experience of a desktop application but with the flexibility to use the server manager from any desktop browser.



## OpenPEC2

<http://www.openpec.org/>

An implementation of Italian's Certified Email, a server-based infrastructure that provides encryption, guarantee of reception and non-repudiability of email.

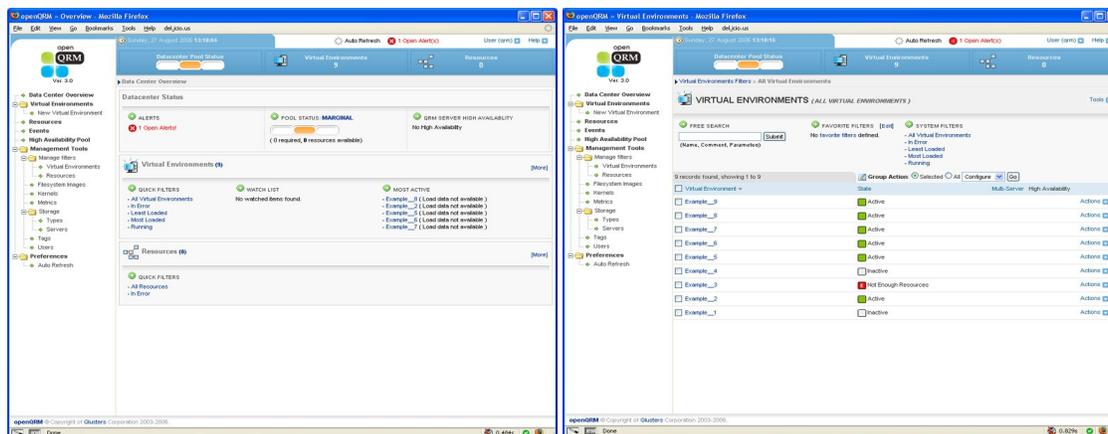
## OpenQRm

<http://www.openqrm.org>

openQRm is a proven, open source systems management platform that integrates with existing components in

complex data centers to create scalable and highly-available infrastructures. Among the features:

- Manages thousands of servers
- Tracks your data center's usage and utilization while generating detailed reports
- Assigns servers to users and applications according to defined policies
- Dynamically adjusts the amount of allocated servers according to actual usage
- Provides high availability for enterprise services and applications
- Redeploy applications and prepare machines for maintenance with a single click
- Separate running applications from physical servers, thereby allowing flexible use of resources and ease of management
- Advanced image management allows shared resources between similar environments
- Supports booting servers from local disk, NAS or iSCSI
- Supports different partitioning technologies, such as VMWare and Xen
- Full support for servers running Linux 2.4 and 2.6
- Partial support for servers running Microsoft Windows
- Use simple tools to add servers and applications to the openQRM management coverage
- Integrate and leverage existing infrastructure software such as VMWare, Nagios and others
- Use ready made packages to support specific configurations like 3-tier web applications environment
- Secure Web Interface provides easy management and control
- Powerful Command Line Interface (CLI) allows custom scripts
- Complete "triggers" mechanism allows users to hook their own applications and scripts to events happening in the system
- Advanced Plug-in architecture allows the addition of new components to any part of the system — including user interface, monitoring agents, decision engines and more
- Plug-ins can be written in Java, PHP or any scripting language
- Open Source Code allows advanced users to modify the system according to their needs



## OpenTrust-PAM

<http://www.opentrust.com/content/view/237/205/lang,en/>

Web reverse proxy for Single Sign On (SSO). It can apply a security policy (profiles stored in a LDAP directory) to an existing set of applications, consolidate websites, encrypt all communications, and rewrite simple URLs. Among the features:

- Business application access management
- Authentication unity
- Level 7 application firewall
- URL dynamic rewrite (HTTPS)
- Automatic adjustment to strong authentication according to the security policy
- Integration of the intranet in a customized portal with access rights
- Multiple websites consolidated in a central URL tree structure and/or using several virtual hosts as proxy front-ends
- Integrated cache to speed up flows
- HTTP 1.0 and HTTP 1.1 including fragmented transfer coding
- SSLv2, SSLv3, TLSv1

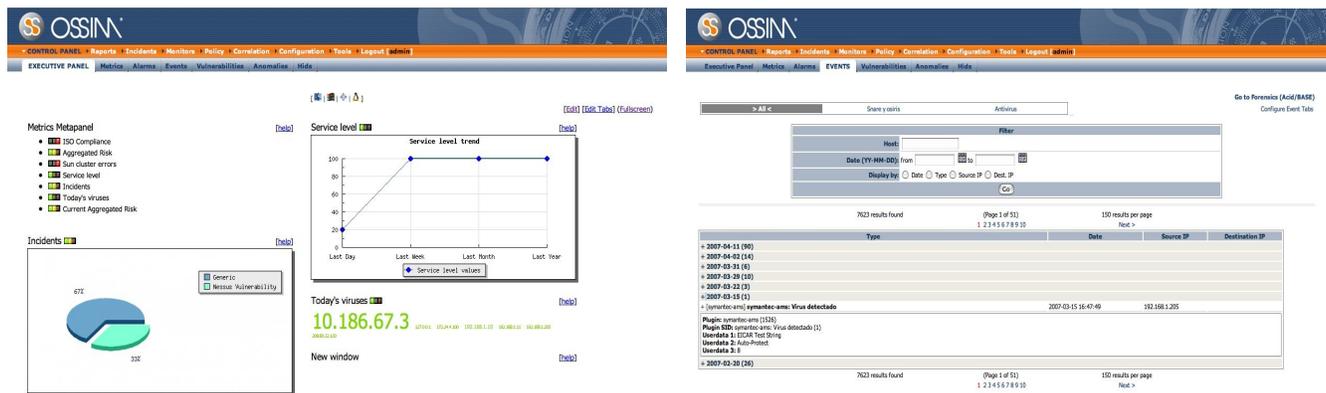
- Support for URL, HTTP header and script dynamic rewrite
- Security policy linked to LDAP directory
- Oracle Forms protocol support

## OSSIM

<http://www.ossim.net/>

Ossim stands for Open Source Security Information Management. Its goal is to provide a comprehensive compilation of tools which, when working together, grant a network/security administrator with detailed view over each and every aspect of his networks/hosts/physical access devices/server/etc...

Besides getting the best out of well known open source tools, some of which are quickly described below these lines, ossim provides a strong correlation engine, detailed low, mid and high level visualization interfaces as well as reporting and incident managing tools, working on a set of defined assets such as hosts, networks, groups and services. All this information can be limited by network or sensor in order to provide just the needed information to specific users allowing for a fine grained multi-user security environment. Also, the ability to act as an IPS (Intrusion Prevention System) based on correlated information from virtually any source result in a useful addition to any security professional.



## PacketFence

<http://www.packetfence.org/>

PacketFence is an open-source network access control (NAC) system. Deployed in academic networks around the world, PacketFence is reliable, extremely configurable, and built upon unmodified open-source code (Fedora, LAMP, Perl, and Snort). PacketFence is designed to operate in heterogeneous environments and uses vendor-agnostic isolation techniques including DHCP scope changes and ARP cache manipulation ("passive" mode). Among the features:

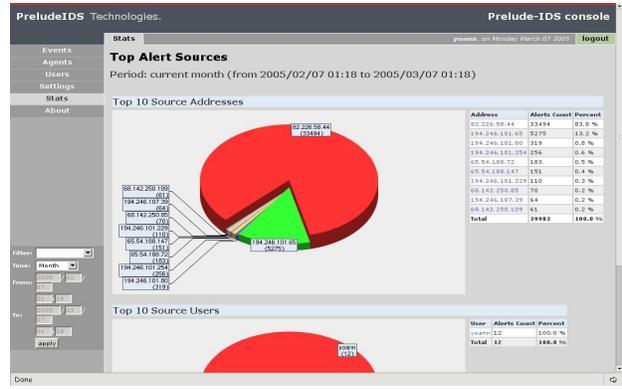
- Authenticate users using any authentication Apache supports (even more than one!)
- Registration-based and scheduled vulnerability scans.
- Captive portal-based user registration and remediation.
- Passive operating system fingerprinting using DHCP
- Ban unsupported operating systems (eg. Windows 95/98/ME) or NAT-based routers.
- Automatically register game consoles or VoIP phones.
- Log location-based information using DHCP option-82.
- Protect multiple networks and 802.1q trunks.

## PreludeIDS

<http://prelude-ids.org/>

Prelude is an Hybrid IDS framework, that is, it is a product that enable all available security application, be it open source or proprietary, to report to a centralized system. In order to achieve this task, Prelude relies on the IDMEF (Intrusion Detection Message Exchange Format) IETF standard, that enables different kinds of sensors to generate events using an unified language. Prelude benefits from its ability to find traces of malicious activity from different sensors (Snort, honeyd, Nessus Vulnerability Scanner, Samhain, over 30 types of systems logs, and many others) in order to better verify an attack and in the end to perform automatic correlation between the various events.

Classification	Source	Target	Source	Time
WEB-MISC robots.txt access	84.104.217.36:42295	194.246.101.01:80	snort (on avale.prelude-ids.org)	12:04:07
2 x TCP packet dropped (Failed)	214.184.192.227:29292	194.246.101.01:1339	prelude-ids/monitor (on avale.prelude-ids.org)	12:04:08
6 x TCP packet dropped (Failed)	209.34.104.27:97932	194.246.101.01:1113	prelude-ids/monitor (on avale.prelude-ids.org)	12:04:12
2 x TCP packet dropped (Failed)	194.246.104.67:1924	194.246.101.01:4445	prelude-ids/monitor (on avale.prelude-ids.org)	12:04:19
TCP packet dropped (Failed)	212.22.171.145:43725	194.246.101.01:1339	prelude-ids/monitor (on avale.prelude-ids.org)	12:04:32
TCP packet dropped (Failed)	212.22.171.145:43725	194.246.101.01:1339	prelude-ids/monitor (on avale.prelude-ids.org)	12:04:08
TCP packet dropped (Failed)	212.22.171.145:43725	194.246.101.01:1339	prelude-ids/monitor (on avale.prelude-ids.org)	12:04:08
Mail server suspension access (Failed)	62.103.292.123	194.246.101.01:25	prelude-ids/monitor (on avale.prelude-ids.org)	12:03:01
5 x TCP packet dropped (Failed)	172.16.1.205:4170	194.246.101.01:4445	prelude-ids/monitor (on avale.prelude-ids.org)	12:02:50
2 x TCP packet dropped (Failed)	172.16.1.205:2490	194.246.101.01:4445	prelude-ids/monitor (on avale.prelude-ids.org)	12:02:18
WEB-MISC robots.txt access	68.142.250.05:43452	194.246.101.01:80	snort (on avale.prelude-ids.org)	12:05:52



## PostgreSQL

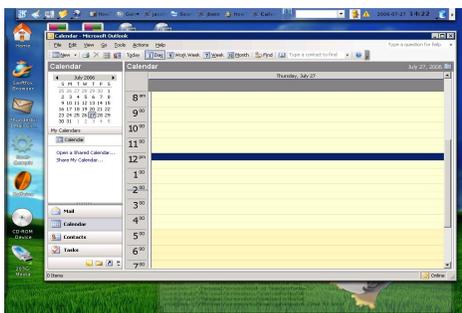
<http://www.postgresql.org/>

PostgreSQL is a powerful, open source relational database system. It has more than 15 years of active development and a proven architecture that has earned it a strong reputation for reliability, data integrity, and correctness. It runs on all major operating systems, including Linux, UNIX (AIX, BSD, HP-UX, SGI IRIX, Mac OS X, Solaris, Tru64), and Windows. It is fully ACID compliant, has full support for foreign keys, joins, views, triggers, and stored procedures (in multiple languages). It includes most SQL92 and SQL99 data types, including INTEGER, NUMERIC, BOOLEAN, CHAR, VARCHAR, DATE, INTERVAL, and TIMESTAMP. It also supports storage of binary large objects, including pictures, sounds, or video. It has native programming interfaces for C/C++, Java, .Net, Perl, Python, Ruby, Tcl, ODBC, among others, and exceptional documentation. An enterprise class database, PostgreSQL boasts sophisticated features such as Multi-Version Concurrency Control (MVCC), point in time recovery, tablespaces, asynchronous replication, nested transactions (savepoints), online/hot backups, a sophisticated query planner/optimizer, and write ahead logging for fault tolerance. It supports international character sets, multibyte character encodings, Unicode, and it is locale-aware for sorting, case-sensitivity, and formatting. It is highly scalable both in the sheer quantity of data it can manage and in the number of concurrent users it can accommodate. There are active PostgreSQL systems in production environments that manage in excess of 4 terabytes of data. PostgreSQL prides itself in standards compliance. Its SQL implementation strongly conforms to the ANSI-SQL 92/99 standards. It has full support for subqueries (including subselects in the FROM clause), read-committed and serializable transaction isolation levels. And while PostgreSQL has a fully relational system catalog which itself supports multiple schemas per database, its catalog is also accessible through the Information Schema as defined in the SQL standard. Data integrity features include (compound) primary keys, foreign keys with restricting and cascading updates/deletes, check constraints, unique constraints, and not null constraints. It also has a host of extensions and advanced features. Among the conveniences are auto-increment columns through sequences, and LIMIT/OFFSET allowing the return of partial result sets. PostgreSQL supports compound, unique, partial, and functional indexes which can use any of its B-tree, R-tree, hash, or GiST storage methods.

## Rdesktop

<http://www.rdesktop.org/>

rdesktop is an open source client for Windows NT Terminal Server and Windows 2000/2003 Terminal Services, capable of natively speaking Remote Desktop Protocol (RDP) in order to present the user's NT desktop. Unlike Citrix ICA, no server extensions are required. Several enhancements were provided by third parties, including better support for cut&paste between the local desktop and the remote clipboard, session sharing and seamless windows.

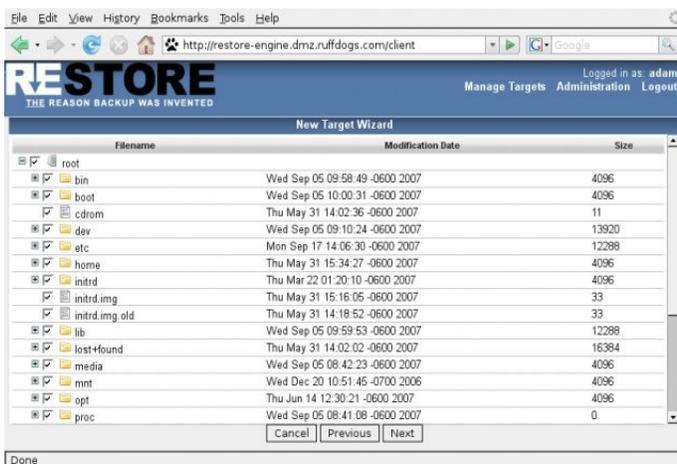


## Restore

<http://restore.holonyx.com/>

RESTORE was developed by Holonyx and is a free, open source, enterprise network backup and recovery solution for Windows, Novell, Mac OS X (data fork), Unix and Linux systems. RESTORE is scalable to a complete backup solution for multiple workstations, servers, and data centers. It operates over local area networks, wide area networks, and the Internet. Among the features:

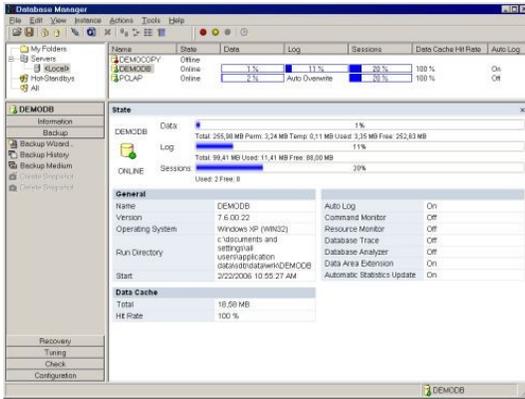
- Browser Based- Access your RESTORE system remotely from anywhere using the internet. This allows for users and administrators to run backups or check the status of automated backups at any time from any web accessible location
- Access Backups via WebDAV- RESTORE provides the ability to access prior backups via WebDAV.
- Web Host Model Reseller environment- RESTORE DC was developed with the web hosting environment in mind also, shifting customer backups from a cost of doing business and turning it into an income generator.
- Permissionable at User Level- Give individuals and groups specified permissions on filestores.
- Security- Set up what you want your users and groups to access.
- Multiple Revisions- of filestores, which allow you to choose the specific filestore you wish to recover at a certain time.
- Error Reporting- Receive reports of errors on the system on various levels and at various intervals.
- Dynamic Scheduling- Allows for simple and complex scheduling that is fully customizable.
- Backup Many Operating Systems- Linux, OS X, Windows (95, 98, 2000, ME, XP NT) and Novell Netware.
- Rapid Recovery- Quickly and easily restore files that you need recovered in real time.
- Incremental- RESTORE will backup only the files that have been modified since the previous backup took place, optimizing disk space and bandwidth usage.
- SSH/SFTP- Backup Linux/Unix operating systems including OS X.
- MySQL Database- You can backup your MySQL Database.
- Servers and Workstations- Backup all server and workstations regardless of operating system.
- FTP Sites- Allows your company to backup websites and online storage.
- Notification- RESTORE will email the administrator and users of successful and failed backups.



## SAPDb/MaxDB

<https://www.sdn.sap.com/irj/sdn/maxdb>

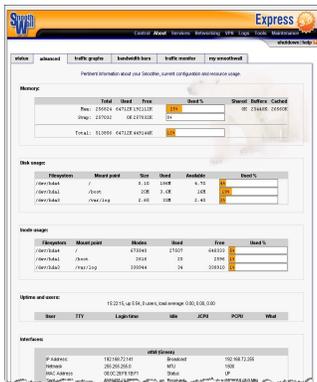
MaxDB™ is the database management system developed and supported by SAP AG. It has its focus on the requirements of SAP customers and SAP applications and can be used as a less expensive alternative to databases from other vendors for your own or third-party applications as well. It is a competitive database management system for medium to large server configurations and also a convincing offering for a desktop or laptop database management system, as MaxDB is very easy to install and operate. The key benefits of MaxDB are its many built-in self-administering features. MaxDB is available for the most prominent operating system/hardware platforms Microsoft Windows, Linux, and UNIX. Today we count more than 10000 SAP customers running MaxDB and liveCache installations, proving MaxDB's reliability, scalability and availability for configurations of all sizes. MaxDB is also widely used within SAP, for example for the Service Marketplace, the documentation development in Knowledge Warehouse, and also SDN recently was migrated to MaxDB. SDN currently is one of the largest SAP NetWeaver Portal implementation with over 600,000 named users, and it runs on MaxDB and Linux-x64.



## SmoothWall

<http://www.smoothwall.org/>

SmoothWall Express is a network firewall produced by the SmoothWall Open Source Project Team. Designed with home and small business users in mind, Express is based upon a security-hardened subset of the GNU/Linux operating system and is completely Free to use, download and distribute.



## SNORT

<http://www.snort.org/>

Snort is a free software / open source network intrusion detection and prevention system (IPS) capable of performing packet logging and real-time traffic analysis on IP networks. The large number of signatures available cover a wide range of attacks, fingerprint probes, web attacks and more.

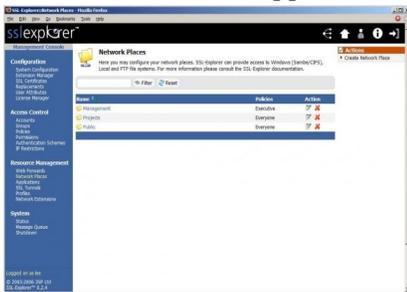
## SSLExplorer

<http://3sp.com/showSslExplorerCommunity.do>

SSL-Explorer is the world's first open-source, browser-based SSL VPN solution. This unique remote access control solution provides you with a means of securely accessing intranet applications and resources using a standard web browser. No client-side software needs to be installed on your user's systems and maintenance is centralised and simple. SSL-Explorer relies on the ubiquitous Java web technology and hence requires just a standard web browser to take advantage of full remote access. Network traffic can be tunnelled through the SSL connection with ease and your email and intranet web/file resources are securely accessible from outside the corporate network with just a single firewall configuration required post-installation. Among the features:

- Versions available for Microsoft Windows XP/2000/2003/Vista, Apple Mac OS X Tiger (or later) and Linux operating systems
- Standards compliant HTML supported on all modern browsers include Internet Explorer 5, IE6, IE7, Mozilla Firefox, Opera and Safari browsers among many more
- Granular policy-based rights management
- Remotely browse Windows filesystems via Windows Explorer
- Microsoft Outlook Web Access 2003 supported - move vulnerable OWA servers out of the DMZ
- Reverse proxy web forwarding supported with HTTP rewrite technology
- Active Directory authentication supported

- Built-in database authentication supported
- UNIX authentication supported
- Configurable authentication schemes
- Access your desktop remotely
- Intranet resources may be securely externalized using web forwarding
- Accessible using zero-footprint VPN client
- Connect using any modern web browser
- Supports access through HTTP or SOCKS proxy
- Local and remote tunneling via SSL
- Session inactivity timeouts
- Web application URL masking
- No dedicated appliance necessary

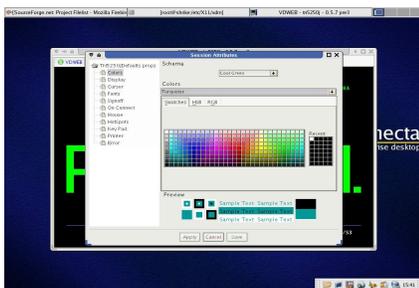


### tn5250j

<http://tn5250j.sourceforge.net/index.html>

The tn5250j is a 5250 terminal emulator for the AS/400 written in Java. There are 3 modes provided: Basic, Enhanced, GUI Enhanced; Basic mode provides normal screen presentation. No extras are provided. This describes most of the emulators that I have used or downloaded and tried. Also; the tn5250 for linux falls in this category as well (Please; this is no slight on this emulator just an example for me to use without naming names. I used it until I started this project). Enhanced mode provides other functions like cursor progression, windows, continued edit fields, edit masked fields, etc... This is where Client Access falls in (and more). The GUI part comes in by manipulating the 5250 stream and painting the fields like gui constructs in windowing systems, gui looking popup windows in place of windows, painting the PF keys on the screen as buttons (hot spots) so when clicked it will send the appropriate aid key, as well as the enhanced functions described above. Among the features:

- Support for non displayable characters
- Hot spots for the function keys
- Message Wait Notification
- Attribute settings for screen/session
- File transfer from host - You can export files from the host in different formats
- Scripting - you can write scripts using the python language.
- Spool file export - you can export spool files from the host into PDF or Text format.



### Untangle

<http://www.untangle.com>

Untangle delivers an integrated family of applications that help you simplify and consolidate the network and security products you need, in one place at the network gateway. The most popular applications let businesses block spam, spyware, viruses, and phish, filter out inappropriate web content, control unwanted protocols like instant messaging, and provide remote access and support options to their employees. Every downloadable

application is pre-configured and guaranteed to work together. It integrates:

- Spam Blocker
- Web Filter
- Protocol Control
- Virus Blocker
- Spyware Blocker
- Phish Blocker
- Intrusion Prevention
- Attack Blocker
- Firewall
- Remote Access Portal
- OpenVPN
- Untangle Reports
- Router



## VELO

<http://docs.safehaus.org/display/VELO/Home>

VELO is an Open Source Identity and Access Provisioning server. Among the features:

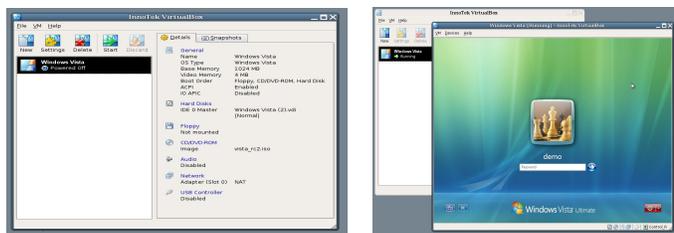
- SPML V2 compliance.
- Role Based Access Control (RBAC)
- Consolidated Employee Identity Attributes repository
- Accounts Attribute Synchronization
- User and Access Reconciliations
- Integrated work-flow engine for complex business processes
- Self Service interfaces
- Support many resources
- Support Complete Account Operations
- Specific typed actions can be added easily
- Centralized Password Policy and Password Synchronization.
- Auditing & Compliance.
- Powerful scripting support for complex processes via Scripting expressions
- Supports more than 20 different scripting languages! new
- Remote services access via Web-Services.
- Extensible via Events.
- Advanced Report Designer & Web-based Reporting Manager.
- Pluggable Authentication Handlers.
- Jboss and Glassfish Support

## VirtualBox

<http://www.virtualbox.org/>

innotek VirtualBox is a family of powerful x86 virtualization products for enterprise as well as home use. Not only is VirtualBox an extremely feature rich, high performance product for enterprise customers, it is also the only professional solution that is freely available as Open Source Software under the terms of the GNU General Public License (GPL). Presently, VirtualBox runs on Windows, Linux and Macintosh hosts and supports a large number of guest operating systems including but not limited to Windows (NT 4.0, 2000, XP, Server 2003, Vista),

DOS/Windows 3.x, Linux (2.4 and 2.6), and OpenBSD.



## WIKID

<http://www.wikidsystems.net/>

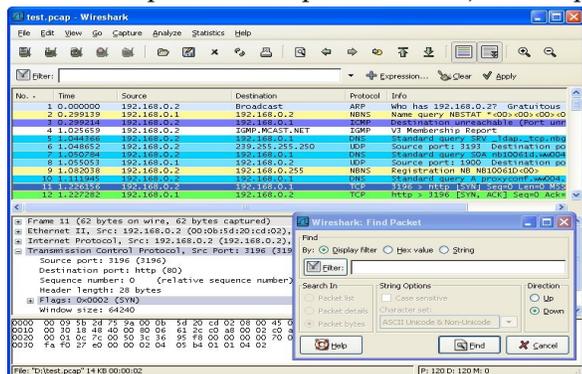
WiKID is a two-factor authentication system. It consists of: a PIN, stored in the user's head; a small, lightweight client that encapsulates the private/public keys; and a server that stores the public keys of the client's and the user's PIN. When the user wants to login to a service, they start the client and enter their PIN, which is encrypted and sent to the server. If the PIN is correct, the account active and the encryption valid, the user is sent a one-time passcode to use instead of a static password. You can think of WiKID as 'certificates on steroids'. It is more secure than certificates because the required PIN is only stored on the server, so it is not susceptible to offline passive attacks. It is easier because user enrollment is automated and you don't have to deal with a full certificate infrastructure. You can also compare WiKID to hardware tokens: it is much easier to implement, more extensible, yet just as secure. Stealing either the token or the PIN does you no good. You must steal both, just like a hardware token.

## Wireshark

<http://www.wireshark.org>

Wireshark is the world's foremost network protocol analyzer, and is the de facto (and often de jure) standard across many industries and educational institutions. It features:

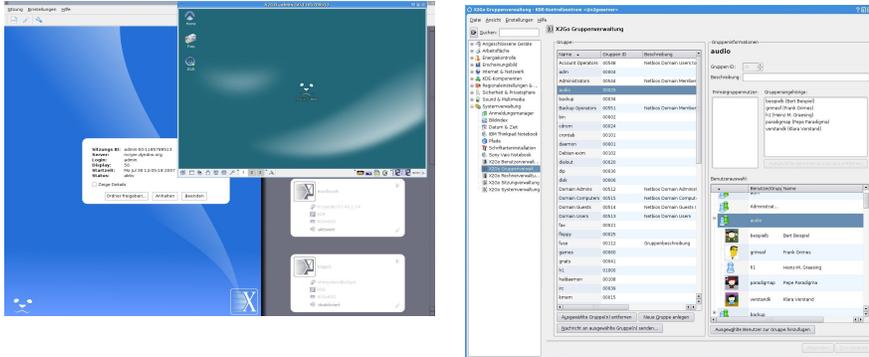
- Hundreds of protocols are supported, with more being added all the time
- Live capture and offline analysis
- Standard three-pane packet browser
- Multi-platform: Runs on Windows, Linux, OS X, Solaris, FreeBSD, NetBSD, and many others
- Captured network data can be browsed via a GUI, or via the TTY-mode TShark utility
- The most powerful display filters in the industry
- Rich VoIP analysis
- Read/write many different capture file formats: tcpdump (libpcap), Catapult DCT2000, Cisco Secure IDS iplog, Microsoft Network Monitor, Network General Sniffer (compressed and uncompressed), Sniffer Pro, and NetXray, Network Instruments Observer, Novell LANalyzer, RADCOM WAN/LAN Analyzer, Shomiti/Finisar Surveyor, Tektronix K12xx, Visual Networks Visual UpTime, WildPackets EtherPeek/TokenPeek/AiroPeek, and many others
- Capture files compressed with gzip can be decompressed on the fly
- Live data can be read from Ethernet, IEEE 802.11, PPP/HDLC, ATM, Bluetooth, USB, Token Ring, Frame Relay, FDDI, and others (depending on your platform)
- Decryption support for many protocols, including IPsec, ISAKMP, Kerberos, SNMPv3, SSL/TLS, WEP, and WPA/WPA2
- Coloring rules can be applied to the packet list for quick, intuitive analysis
- Output can be exported to XML, PostScript, CSV, or plain text



## X2Go

<http://x2go.berlios.de/index-en.html>

x2go is a "server based computing environment" combining the advantages of different existing solutions. x2go is "end user ready" and has improved usability. It can be sized from single PC-installations to enterprise networks with multiple servers and LDAP Trees. x2go is a fast, secure and simple way to connect to your desktop over local LAN or even over a low bandwidth internet connection. x2go is open source and available for different cpu architectures. x2go comes with kcontrol plugins which will help you administrating a x2go environment. We have added "live filter search widgets" and other innovative ideas to help you with your daily work. x2go supports LDAP and adds no scheme or other modification and it's possible to use existing installations. User sessions can be graphically stopped, shared or discarded. With x2go spyglass you can see what's going on on all connected clients in your x2go environment. The thumbnail previews can be filtered by users, groups, rooms, ip-zones and you can arrange them by their true physical position. If you want to allow somebody to use this application you only need to add him/her to the referring posix group.



## Zenoss

<http://www.zenoss.com/>

Zenoss provides a complete suite of software and services help you succeed in monitoring your IT infrastructure. Our software provides a single, integrated solution for monitoring your entire IT infrastructure - network, servers, applications, across the full lifecycle - inventory, configuration, availability, performance, events. Through our unique approach our goal is to overcome the common hurdles to achieving effective IT monitoring and management. At the heart of Zenoss Core is Zenoss Configuration Management Database (CMDB). The CMDB houses a unified model of the IT environment and is basis of Zenoss' "model-driven" IT monitoring and approach. Among the features:

- Modeling of entire environment including networks, servers, software, and applications
- Mapping of IT elements and cross-platform information into a normalized data schema
- Logical and physical grouping and mapping to business systems, locations and responsible parties
- Population through auto-discovery, web services API, XML import/export, and manual user input
- Configuration policies that specify required configuration items
- Autodiscovery
- automatic change history and detection
- scheduling
- Grouping, Organization, Association, Classification
- reporting

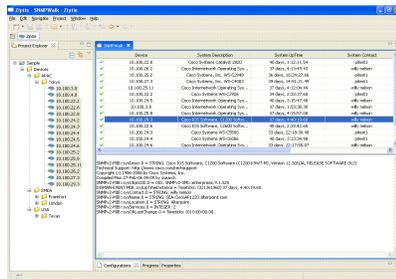
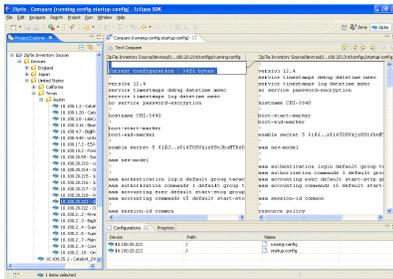


## ZipTie

<http://www.ziptie.org/>

ZipTie is an open source framework for Network Inventory and Configuration Management. It will help you discover and manage your network devices such as routers, switches, and firewalls. ZipTie is free to download, use, and distribute under the Mozilla Public License (MPL v1.1). It supports out of the box the following hardware:

- Cisco IOS based routers/switches
- Juniper devices
- Linksys VPN routers
- Vyatta routers
- Nortel BayStack switches

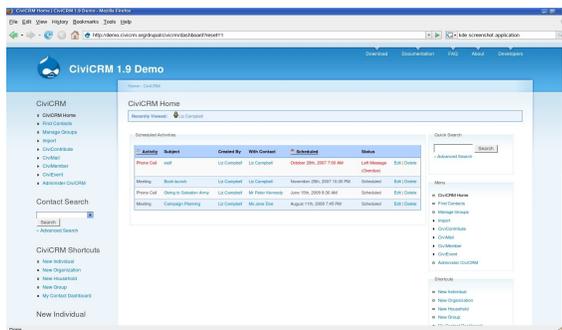


# ERP/CRM

## CiviCRM

<http://civicrm.org/>

CiviCRM is the first open source and freely downloadable constituent relationship management solution. CiviCRM is web-based, open source, internationalized, and designed specifically to meet the needs of advocacy, non-profit and non-governmental groups. Integration with both Drupal and Joomla! content management systems gives you the tools to connect, communicate and activate your supporters and constituents. It includes modules for online fundraising and donor management, events and participants tracking, personalized email blasts and newsletter.



## CentraView

<http://www.centraview.com>

CentraView is a leading Open Source Centralized Business Management (CBM) solution that delivers an ideal combination of Contact Management, Salesforce Automation (SFA), and Customer Relationship Management (CRM) functionality and much more, all through a standard web browser. CentraView is much more than just CRM or SFA. We offer a comprehensive business management suite that reduces the need to purchase many different software applications that don't talk to one another. Ultimately we provide you with that all important "Centralized View" of all your customer information. Among the features:

- Enterprise quality contact management
- A Web email client that works with POP and IMAP, and automatically relates all emails with customer records
- Group calendaring
- Activity tracking and reporting
- Centralized file management
- Marketing functions including mass emailing through a mail merge utility
- Sales force automation including comprehensive opportunity tracking and proposal creation
- Project tracking with unlimited tasks and sub-tasks, milestones, alerts and emails, and time and expense tracking
- Web ticketing entered via email and the customer and employee portals
- Frequently Asked Questions (FAQ) and Knowledge Base (KB) systems
- Accounting views for relating order, invoice, expense and other information with customer records
- Human resource module for expense form and time sheet submission and more
- Synchronization with MS Outlook, Outlook Express, Palm, Pocket PC, and Blackberry through the CompanionLink conduit. Synchronizes all contacts, calendar items, activities, and notes.
- A customer portal that may be configured to meet your branding strategy
- A configurable interface that is easily editable via style sheets.
- An online help system
- Administrative modules to configure the software for your specific requirements

### **CK-ERP**

<http://ck-erp.org>

CK-ERP is an open source accounting / MRP / ERP / CRM system that runs on top of multiple middlewares. It provides accounting and back office functionalities to SMEs and utilizes the underlying middleware to administer accounts/groups. It comprises 22 modules – Administration, Multilingual Facility, Contact Management, Customer Relationship, Customer Self Service, Vendor Relationship, Material Requirement Planning, Warehouse, Inventory, Service, Accounting Ledger, Bank Reconciliation, Accounts Payable, Accounts Receivable, Purchase Order, Sales Order, Quotation, POS for Cashier, POS for Manager, Human Resources, Staff Self Service and Payroll. Operating platform can either be LAMP or LAPP. Backend database engine can be anyone of MySQL, PostgreSQL and SQLite.

### **Compiere/Adempiere**

<http://www.compiere.com/company/index.php>

<http://adempiere.red1.org/>

One of the most important open source ERP projects, Compiere (and the recently created fork Adempiere) are complete and sophisticated mid-tier ERP systems. Among the features:

- Standard and Customizable Financial Reports – Generate standard financial and managerial reports including Balance Sheet, Profit and Loss, Statement of Cash Flows and many others. Additional reporting options include customizing reports with Compiere's internal report writer, data access using your choice of 3rd party report writers, or data exports for analysis in spreadsheet or OLAP tools.
- Comprehensive Financial Management – Compiere offers comprehensive financial management capabilities. All functional elements of Compiere are global-ready, supporting the complexities of businesses that span multiple organizations, currencies, accounting schema, tax laws and languages. Compiere enables you to customize the system to meet your needs without risking violation of accepted accounting and tax rules.
- Customer-specified Chart of Accounts – At the heart of every financial accounting system is a chart of accounts. Compiere ships with several charts of accounts for you to use. It also provides a streamlined process for you to continue using your own chart of accounts.
- Accounting Rule Enforcement – Compiere strictly enforces base accounting rules to ensure balanced accounting entries and overall system integrity. An example of a base rule is that the system will reject an entry if the accounting date is in a closed period.
- Tax Calculation and External Reporting – Most tax entries are created by the transaction. Compiere calculates, manages and applies multiple taxes (e.g. GST/PST) as well as local tax. Tax rules create correcting tax entries for Sales Tax and VAT systems. Compiere automates the preparation of reporting to external tax agencies.
- Banking Relationship Management – Compiere automates the management of your banking relationships and accounts. Compiere supports the import and export of bank statements using OFX, IFX and SWIFT

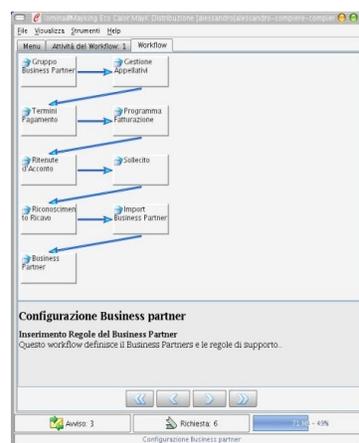
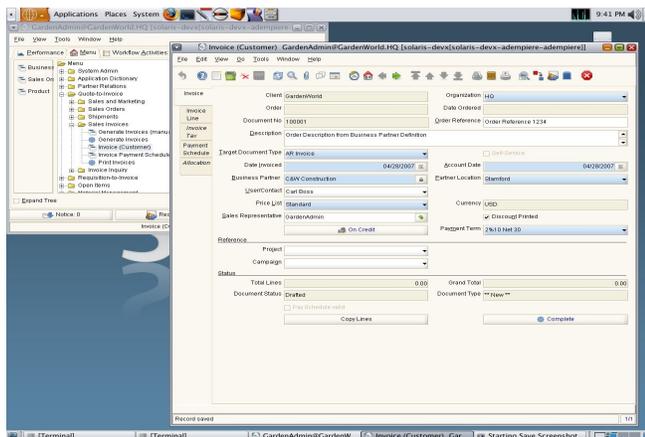
formats.

- Quotations - Compiere provides for the creation and printing of customer quotations based on general or customer specific price lists. Quotations can be made "binding," in which case they reserve inventory. Quotations may also be modified at any time and can be automatically converted to a Sales Order without additional data entry.
- Sales Orders - A Sales Order is the "fulfillment control document" that is the foundation for generating Sales Order, shipment and invoicing documentation. In addition, Vendor Purchase Orders may be created automatically for the items specified on a sales order and directly shipped to the customer if appropriate. Different types of sales orders cause different business process behavior in Compiere. For example, a "Prepaid Order" will not allow shipments until payment occurs. A "Point of Sale" order assumes the customer is at the counter with the goods in hand and generates all transactions including stock decrement, invoicing, and payment through the entry of a single document. A "Standard Order" by comparison, will check availability before accepting the order then queue the order for fulfillment by the warehouse and then generate an invoice in the next invoice run or otherwise in accordance with the invoice rules for that customer. Compiere supports the following Sales Order Situations: Standard order, POS order, credit order, warehouse order, prepay order, RMA.
- Shipments - Based upon the details captured on the Sales Order, one or more shipments can be generated immediately or automatically when inventory subsequently becomes available. Compiere automatically back orders unavailable items. Compiere can be configured to allow shipments to be effected from the shipment documentation or alternatively provide for a more disciplined warehouse approach by requiring explicit confirmation of picking and/or shipment prior to the generation of invoice documentation. Confirmations can be used to manage movements of inventory from, say, a receiving area to 'put away' areas from which it then becomes available for further processing.

Other specific functionalities:

- product catalog
- price lists
- bill of materials
- distribution and multi-warehouse control
- material receipts, replenishment
- costing of products and services
- material receipts, vendor invoices
- CRM, sales management, customer tracking, customer profitability analysis
- integrated e-commerce
- point of sale
- integrated reporting

Several extensions and plugins exist, for example the Libero manufacturing customization (adds MRP, CRP, shop floor control, capacity control) or localised master structures for individual countries balance codes.



## CREAM

[http://www.campware.org/en/camp/cream\\_news/](http://www.campware.org/en/camp/cream_news/)

Cream is a multilingual customer relationship management (CRM) system for media organizations that features

powerful modules for sales automation, customer service, subscription management, incoming and outgoing email, template-based HTML newsletters, and a WYSIWYG editor.

Highlights of Cream feature set:

- Receive e-mail functionality (text and HTML)
- Sending HTML emails
- Editing HTML emails with a WYSIWYG HTML editor
- Newsletter subscriptions for anonymous users
- External HTML forms for newsletter subscriptions and unsubscriptions
- Sending HTML newsletters
- Editing HTML newsletters with WYSIWYG HTML editor
- Powerful filter for sending newsletters to either newsletter subscribers or all customers based on type, category, product, or campaign
- Import of products and customers
- 'Communication' and 'Sales' tabs in user interface
- Completely localizable user interface
- Localizations to Dutch, German, Spanish, Russian, Ukrainian and Serbian languages
- Home page with shortcut and summary links
- Help page with FAQ, Support and Forum links
- The application now also works on Windows

### **EGS**

<http://www.enterprisegroupwaresystem.org/>

Enterprise Groupware System is a fully Open Source web-based CRM & business system released under the GPL.

Among the functionalities:

- Manage accounts, leads and customers
- Track sales opportunities and pipelines
- Organise your activities
- Plan campaigns
- Manage projects, tasks and resources
- Track hours and resources for project usage
- Complete time sheets
- Organise your customer support and emails

### **ERP5**

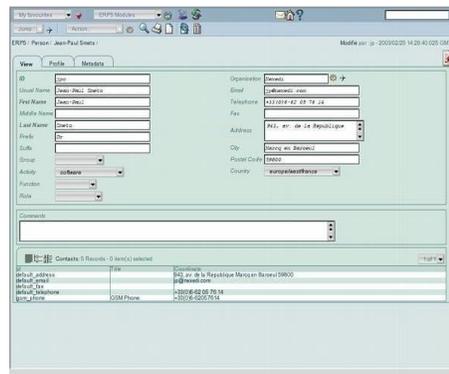
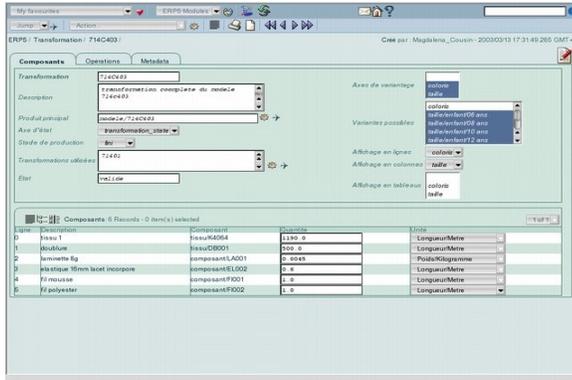
<http://www.erp5.org>

A sophisticated and complete ERP system, ERP5 covers accounting, customer relationship management, trade, warehouse management, shipping, invoicing, human resource management, product design, production and project management. All resources in ERP5 can be varied in any number of dimensions, providing built-in configuration for products and reduced design cost for bill of materials (BOM) and bill of operations (BOO) as well as structured rule-based approaches to complex pricing. It has been implemented in vertical industries like banks, aerospace, health care, apparel, and government agencies. A specific mobile interface has been recently added, with the initial certification of the Nokia E61 smartphone.

Some features [source: Herzog, "a comparison of open source ERP systems]:

- Trade provides purchase, sale, order and warehouse management functionality.
- PDM (Product Data Management) allows product definition, variations, categorization, bill of materials (BOM) and a multimedia catalog. There is also a special PDM module for the apparel industry available, which supports all document types required for the handling of fabrics, models, sizes, CAD files, etc.
- MRP (Manufacturing Requirements Planning)
- CRM (Customer Relationship Management)
- Accounting
- HR (Human Resources)
- The E-Commerce online shop supports XML based synchronization with a backend server.
- CMS (Content Management System) to store, index and classify all documents and unstructured data.

- Groupware



## Hipergate

<http://www.hipergate.org/>

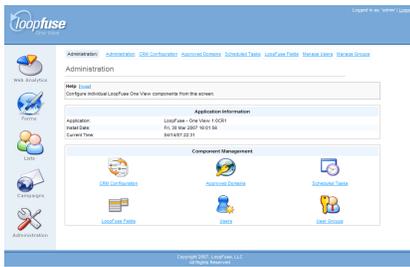
hipergate is an open source web based application suite. Its mission is to cover a full range of technical requirements in any organization. All applications are addresses from Internet Explorer, without needing any other additional software in the client computer. This suite is multi-company capable, and can be used in a single company, a corporate group or working as an ASP solution capable of serving an unlimited quantity of single customers. It provides a Collaborative tools and Groupware Module, a contact management module, project management, eCommerce, content management, massive email handling and corporate library.

## LoopFuse

<http://loopfuse.com/>

LoopFuse is the enterprise-grade marketing and sales automation suite offering organizations the ability to generate leads from their website, score and route leads, marketing campaign capabilities, full web analytics support, and full CRM integration with most major vendors. LoopFuse also offers the capability to measure ROI within marketing and sales department initiatives.

- LoopFuse Web Analytics component allows organizations to better tune their websites to increase message response with accurate statistics covering a wide-range of metrics. Our integrated lead generation platform, enables you to generate increased demand for your products and services, providing a continuous flow of qualified leads to your sales team. Automated lead generation allows marketing organizations to have a measurable process that can be adjusted in order to maximize sales results.
- The LoopFuse marketing campaign manager gives marketing organizations complete control over all marketing initiatives, including: email marketing, internet marketing, and traditional/print marketing. Our innovative ability to tie these marketing initiatives in to your CRM information and web analytics, means that marketing organizations can now calculate the exact ROI value for all their campaign initiatives, be it a banner ad, email campaign, or even a highway billboard.
- LoopFuse OneView stores all demographic, product interest, viewing habits data in your dedicated database, so you can segment the data by this information and queue them for further nurturing, export to a CRM, or export in a raw format.
- OneView's CRM Integration feature, allows organizations to automate the process of routing segmented (or all) potential leads to your sales professionals. LoopFuse can export as much, or as little information as a marketing organization would like, providing sales professionals with all the information they need on a qualified prospect.
- Once you have segmented your leads, qualified, or even routed them to your sales professionals, OneView allows marketing organizations to have a bird's eye view of how a potential lead has progressed through you marketing and sales funnel, and valuable historic/demographic data that will increase the "Lead Intelligence" factor for your sales professionals.
- Automated Lead Scoring allows you to perform automated scoring of all leads and organizations in your database. The lead scoring process is automated, allowing you to create Lead Scoring Rules, that are executed on a frequency basis.



## OpenBravo

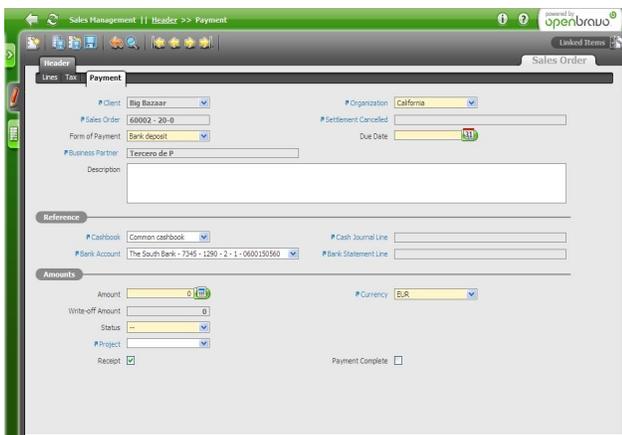
<http://www.openbravo.com/>

Openbravo is an open source ERP solution designed specifically for the SME (small to midsize firm). Developed in a web based environment, it includes many robust functionalities which are considered part of the extended ERP: procurement and warehouse management, project and service management, production management, and financial management. It supports:

- procurement management: Purchase planning, based on production necessities, keeping in mind minimum stock levels, goods receipts dates, and pending requests, Purchase orders. Rates applications: prices, discounts and price limit controls. Warehouse control of goods pending receipt. Correction of orders. Creation of purchase orders from sales orders. Refunds to the vendor. Receipts. Automatic creation from pending order lines. Automation of incoming goods (location according to priority). Refunds to the vendor (according to stocks). Cancellation of delivery notes. Purchase invoices. Application of rates: prices, discounts and control of price limit. Automatic creation from order lines or delivery note lines pending invoicing. Invoicing of goods processed in consignment. order. Cancellation of invoice (leaving pending for invoicing the associated documents). Relationship between orders, delivery notes and invoices. Expense Invoices. Massive printing of documents. Purchasing order reports, vendor invoices.
- Warehouse management: The warehouse management processes built into Openbravo allows the inventory in your organization to always be up to date and correctly valued. The possibility of defining the warehouse structure of your organization to unit level (storage bins) facilitates the exact localization of your stock at any time. Additionally, the capacity for managing product lots and the possibility of using serial numbers assure compliance with the tracking requirements imposed by the majority of industries. Among the features: Warehouses and storage bins (multiple warehouse use available). Stock products in multiple units (for example in kilograms and boxes). Personalized product attributes in the warehouse (color, size, quality description, etc.). Lot and serial numbers. Printing of labels. Barcodes (EAN, UPC, UCC, Code, others.). Management of bundles in warehouses. Restocking control. Traceability configurable by product. Movement among warehouses. Picking strategies (according to stock, with rules of priority by expiry, location, etc.). Physical inventory. Inventory planning. Continuous inventory. Reports of movements, tracking, stock, arrivals/departures, expiry, inventories, locations, etc. Personalized reports.
- Project and service management: This functionality is orientated towards companies whose activities are based on the delivery of projects and services. With relationship to projects, Openbravo allows for the management of budgets, phases, tasks, expenses and purchases related with each individual project. These projects may be related to monitoring construction projects or even sending out and sales and purchase related requests. The service component permits companies to define services and resources and control all activities. These activities may or may not be billable, for internal or external customers, and be monitored for incurred expenses at a detailed level. Functionalities: Project types, phases and tasks. Expenses associated with a project. Made-to-order projects and generation of sales orders from templates. Construction projects. Invoice to origin (by project). Rates by project. Budget report. Tracking of actions regarding budget estimates. Generation of purchase orders. Project reports. Resources. Register of services. Internal expenses. Invoicing of expenses. Invoicing of services. Levels of service. Activities report.
- Production management: Plant structure, production plans, BOM's, MRP, manufacturing orders, job reports, costs of production, work incidences, preventive maintenance types, etc. The production functions and plant management in Openbravo allow a complete shaping of the productive structure of each organization (sections, cost centers and work centers) as well as the relevant data for production: production plans (operation sequences), and products used to make one another. Currently, the functionality provided by Openbravo is orientated towards covering the usual necessities of a discrete

production environment: production planning and requests related to procurement using MRP, creation of manufacturing orders, job reports (notification of times and consumption), calculating costs of production, notification of job incidents and maintenance reports. Features: Plant structures. HFG's (Homogeneous Functional Groups) or Cost Centers. Work centers and machines. Materials Requirement Planning (MRP) keeping in mind client requests, existing clients, stock levels, and minimum order quantities. Production plans, with multiple arriving products and multiple departing products. Production orders. Sequence creation and products for each order phase. Confirmations with data relating to the production plan and pre-filled sequence. Calculation of production costs with the possibility of adding indirect costs. Work incidences. Types of equipment and management of each piece of equipment. Preventive maintenance and maintenance types.

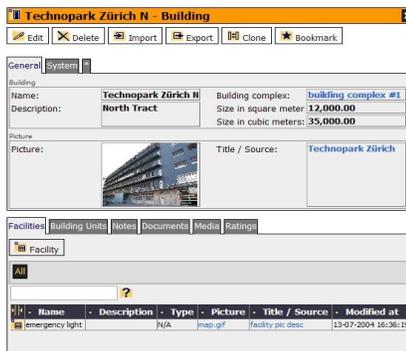
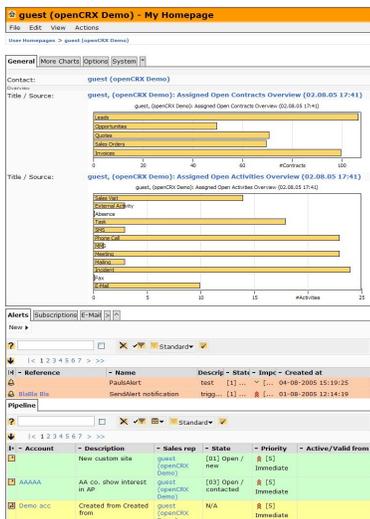
- Financial management: The financial management functionality provided by Openbravo is designed to minimize manual data input on behalf of the user, thereby freeing them from tedious, routine tasks and allowing greater focus on other, more value added tasks. This increase in productivity is due to the financial department acting as collector of all the relevant actions generated from the other management departments. This occurs in such a way that these have an automatic reflection in the general accounting, in the accounts receivable and accounts payable as soon as they are produced. The module covers accounting, receivables and payables, assets, amortization.
- Business intelligence: Nowadays, business organizations handle a great deal of data in the practice of their business activities. This does not necessarily mean that they have available to them the necessary information for the management of their enterprise. The BI component of Openbravo, integrated into the management system, will help you to monitor of the state of your company, providing you with the relevant information for decision-making. The predefined balanced scorecard will allow you to verify, through the monitoring of a series of key indicators, if the defined strategy is being correctly implemented in your organization.



## OpenCRX

<http://www.opencrx.org/>

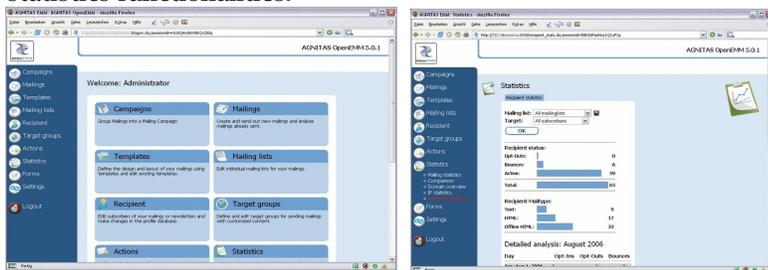
A complete and powerful CRM system. It provides: Account/Contact Mgmt, management of complex legal entities, leads/opportunities, quotes, sales orders, invoices, territory management, product catalogs, multiple pricing and discounting, task management, collaborative sales support, customer service and support (incident/case management, contract management, collaborative service support, FAQ, effort tracking and billing), alerts, document management.



## OpenEMM

<http://www.openemm.org>

OpenEMM is a feature-rich, industrial-strength enterprise software for professional e-mail newsletters and e-mail marketing. Moreover, OpenEMM lets you send event and time triggered transaction e-mails. OpenEMM is the first open source application for e-mail marketing. The OpenEMM code base has been developed since 1999 and is used (as part of the commercial ASP product E-Marketing Manager) by companies like BenQ, CA, IBM, Siemens, Deutsche Telekom, Tiscali, etc. It features target groups, integrated HTML editor, complete reporting and statistics functionalities.



## Open for Business

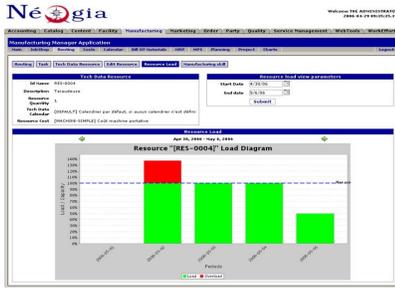
<http://ofbiz.apache.org/>

The Apache Open For Business Project is an open source enterprise automation software project licensed under the Apache License Version 2.0. By open source enterprise automation we mean: Open Source ERP, Open Source CRM, Open Source E-Business / E-Commerce, Open Source MRP, Open Source CMMS/EAM, and so on.

Apache OFBiz offers a great deal of functionality, including:

- advanced e-commerce
- catalog management
- promotion & pricing management
- order management (sales & purchase)
- customer management (part of general party management)
- warehouse management
- fulfillment (auto stock moves, batched pick, pack & ship)
- accounting (invoice, payment & billing accounts, fixed assets)
- manufacturing management
- general work effort management (events, tasks, projects, requests, etc)
- content management (for product content, web sites, general content, blogging, forums, etc)
- and much more all in an open source package!

Several ERP systems are based on OfBiz, including Neogia (<http://www.neogia.org>), OpenTaps (<http://www.opentaps.org/>) and others.

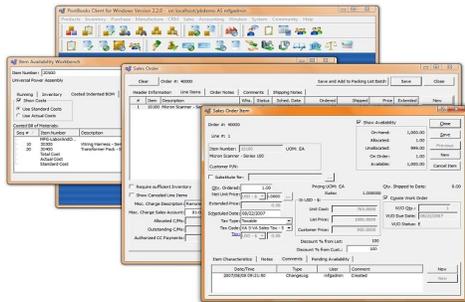


## PostBooks

<http://www.openmfg.com/postbooks>

PostBooks is a full-featured, fully-integrated accounting, ERP, and CRM system, based on the award winning OpenMFG ERP Suite. Built with the open source PostgreSQL database, and the open source Qt framework for C+++, it provides the ultimate in power and flexibility for a range of businesses and industries. It includes the following modules:

- Accounting (general ledger, accounts receivable and payable, bank reconciliation, financial reporting)
- Sales (quotes, order entry, sales reporting, shipping)
- CRM (universal address book, incident management, opportunity management, to-do lists, project management)
- Purchasing (purchase orders, receiving, vendor reporting)
- Product Definition (items, infinite-level bills of material)
- Inventory (multiple locations, other advanced warehouse features)
- Light Manufacturing (work orders, strong support for make-to-order)
- OpenRPT open source report writer



## SugarCRM

<http://www.sugarforge.org/content/open-source/>

SugarCRM is the most widely used open source CRM system; with a strong developer community and a large number of ancillary projects hosted in the SugarForce, the development site managed by the main developers. SugarCRM features the following functions to help streamline your business:

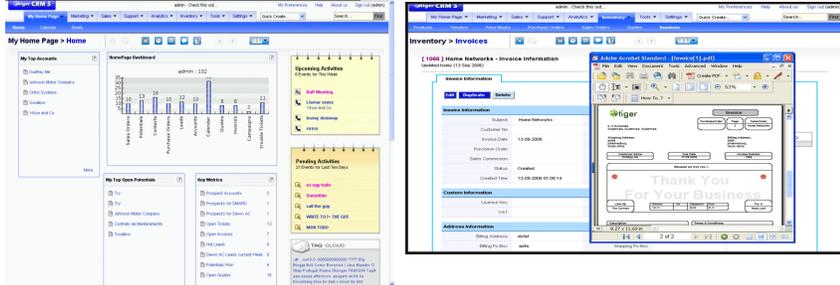
- Account, Contact, Opportunity and Lead Management: Manage the important details about your valuable accounts including organisational contacts, outstanding activities, leads and opportunities.
- Sales activity management: Management of important sales activities, including sales calls, meetings, tasks and recording of notes and email related to the account, opportunity or lead.
- Dashboard: The Dashboard provides a single-view of the important statistics about sales performance including Pipeline by sales stage, Pipeline by month, Opportunity by outcome, and opportunity by sales stage.
- Case Management and Bug Tracking: Optional Case and Bug Management functions to ensure customers are being looked after, and to provide critical information about the customers' situation.
- Customisable user interface: SugarCRM can be customised in-place by an end user without the involvement of expensive external consultants. Its easy to add new or remove fields, change the contents of dropdown lists and modify what function tabs are visible, either per user or for the entire organisation.



## vTiger

<http://www.vtiger.com/>

A complete CRM system, providing lead and opportunity management, activity and reporting subsystems, dashboards, integration with Microsoft Outlook and Mozilla Thunderbird, easy product customization, campaign management. It also integrates Inventory Management functions, such as Products, Price Books, Vendors, Sales Quotes, Purchase Orders, Sales Orders, and Invoices with CRM modules, such as Leads, Accounts & Contacts, and Opportunities. Using vtiger CRM you can achieve the seamless integration between pre-sales and post-sales activities in a single application.



## Wavelet ERP

<http://www.wavelet.biz/>

An integrated ERP designed for franchise and chain stores. It does feature several horizontal and customized modules:

- Trading – This module consists of point of sales features and functionality, from issuing of cashsale, invoice, sales return, purchase return, internal stock transfer across different branches, RMA (Return Merchandise Authorization), and many other functionality are specific for chain store businesses that heavily involved in trading and distributions. It supports various features related to retail industry like auto configuration of Easy Payment Scheme and so on.
- Inventory Module – This module provides various functionality to manage and keep track of inventory in large environment. Users carry out maintenance of inventory master records here, and generate all sort of reports ranging from sales report, stock aging, tracing the inventory path, serial number tracking, and many forms of stock balance reports in matrix format.
- Finance Module – This module allow the users to create Payment Vouchers, Receipt Vouchers, perform Bank Reconciliation, Managing various cash books and reports related to daily operations of the finance department.
- Accounting Module – This module is tightly integrated with all other modules in the system. Users can drill down all the way to the source documents from the balance sheet or profit and loss account. The accounting module also supports multiple companies in the same database, which means group consolidation could be performed on a real time basis across multiple subsidiaries for group accounting.
- Customer Module – This module allow the user to manage customer records, send auto email promotions, and various Account Receivable reports, Monthly Statement, Outstanding Invoices, customer transaction history etc.
- Supplier Module – This module allow you to manage your Account Payables and other supplier information. We provide features and functionality from Purchase Order and other work flow and processes for procurement. As it is tightly integrated with the inventory module, all stocks are updated on a real time basis.
- System Administration – System administration module allow the users to view comprehensive audit trails, manage users, and define detailed permission settings.
- Manager Module – This is a decision support tool for senior managers or directors of the company to gain a bird's eye view of the enter company performance using key statistics and performance indicators within a dashboard.
- Warehouse Management – Our warehouse management module is used by a License bonded warehouse in Singapore. This warehouse module focus on managing the various "lots" in the warehouse, and support up to 4 packing level. Records of permit number, HS Code, and other information could be easily generated from the system.
- E-Commerce – Our e-commerce module comes with a back-end configuration interface to provide easy maintenance of online product catalog, real time order placement with integration with all credit cards (including JCB, DINERS etc), Maybank, RHB Bank, Hong Leong Bank, FPX, BumiPutera Commerce Bank, Mobile Money and Many more. Besides, the front end e-commerce is tied with the back-end order processing, delivery management, trip organization, inventory module, account receivable, finance,

accounting etc.

- Customer Loyalty Programme - The module allow the merchant to create member cards, keep track of customer's demography and generate promotional letters etc. The cash rebate voucher feature provides real time synchronization to prevent fraud, as well as updating the accounting module seamlessly.
- Footwear - The footwear module is specifically catered for apparel industry. It supports multiple sizes and colours per article. Most of the functionality in the trading module is included.
- Automotive repair workshops - Our system provides car care companies to keep track of their job sheet, and auto conversion of these job sheets to invoice. Tracking of multiple vehicles per account, and other work flow related to auto care industry. The government service tax reports automatically filter out items that are taxable from the rest.

## XRMS

<http://xrms.sourceforge.net>

A complete and customizable web-based CRM system. Among the features:

- Customer Management: Contains a very complete set of fields for tracking Companies, their Contacts, and a wide variety of information about them.
- Sales Force Automation: Provides extensive support for tracking Opportunities and Leads through the selling cycle. Allows configurable sales processes and supports different processes depending on the opportunity type.
- Customer Support: XRMS uses Cases to track client support issues. Cases are completely configurable and can be associated with workflows and role assignments.
- Campaign Management: Campaigns are marketing-related activities, such as direct mailings or conferences, and are directed towards generating leads. XRMS provides basic campaign management functionality for tracking leads generated through the sales process. This functionality is currently in active development.
- Correspondence Management: Users can send e-mails to company contacts, and may use either standard or custom templates. Templates can be easily created to contain pre-written text that may be altered prior to being sent.
- Customer Interaction and Activity Tracking: Provides tracking for any action taken by users that puts them in touch with a contact in a company (e.g., calls, letters, meetings, and e-mails). Activities are linked to Companies and Contacts and can also be related to Campaigns, Cases and Opportunities. Activities may have multiple Participants from different Companies.
- Reporting and Analytics: The browser interface provides flexible displays of data that allows for sorting and grouping of data, reordering or hiding columns, and exporting table data for analysis. Some standard reports are included, but custom reports can also be created. Reports may also be generated with third party business intelligence tools, such as Crystal Reports.
- Document Management: Files and folders may be attached to any entity. Files may be of any type, and PDFs and MS Office files are fully searchable.

XRMS Open Source CRM

Home

Home • Activities • Companies • Contacts • Campaigns • Opportunities • Cases • Files • Reports • Administration • Preferences

Documentation  
User Manual (PDF)

Opportunities

Widget Sales EGP Opportunity New 2006-04-21

Open Cases

Case Company Priority Due

Schedule Contact Employee Fund Advisors Critical 2006-04-20

Files

Summary Size Owner Date

Report and Data Entry 714.16 KB Brian 2005-01-28

Relation Data 290 KB Brian 2004-03-08

Sales Process 100 KB Brian 2004-07-10

Cards - Quality of I 2.27 MB Brian 2004-07-13

Notes

Attached To Sub Owner

No attached notes

Calendar

Previous Week Apr 17 - Apr 23 Next Week

	Mon 17	Tue 18	Wed 19	Thu 20	Fri 21	Sat 22	Sun 23
08:00			Start Meeting (08:00-09:30)				
08:30					Start Meeting (08:30-10:30)		
09:00	Call Annek (09:00-09:30)	Sales Meeting (09:00-10:30)					
09:30							
10:00							
10:30							
11:00							
11:30			Sales Meeting (11:30-13:30)				
12:00							
12:30							
13:00							
13:30							
14:00	Call Annek (14:00-14:30)			Follow up on the call (14:00-15:00)			
14:30							
15:00							
15:30							
16:30							
17:00							
17:30							
18:00							
18:30							
19:00							

XRMS Open Source CRM

Logged in as user1 • Logout

Contact Details: Elizabeth Boyer

Home • Activities • Companies • Contacts • Campaigns • Opportunities • Cases • Files • Reports • Administration • Preferences

Categories

No categories

Management

Opportunities

Opportunities

Open Cases

Relationships for Contact

Relationships for Company

Contact Details

Name: Elizabeth Boyer Company: International Investment Group (90)

Gender: Female

Summary

Title: Vice President Business Address: International Investment Group, 42 Rue du Lac, Zurich, Switzerland

Description

E-Mail: eboyer@iig.com

Work Phone: (713) 555-3257 x112 Home Address

Home Phone: (713) 555-3257

Cell Phone: Fax: (713) 555-1394

CCS Account Status: Prospect

Individual Broker ID

Elizabeth has worked with us for 15 years.

Edit Close

New Activity

Summary	User	Type	Contact	Scheduled End
	One User	Call to	Elizabeth B	2005-09-05 15:36:20

Activities Filter Activities

Page 1/1 (1 records found)

Summary	Owner (G)	Type (G)	About	Scheduled Start	Scheduled End
Phone Call	MJenny	Phone Call	N/A	2005-09-01	2005-09-01

Select Column Layouts Calendar View Export Mail Merge Browse

# Groupware

## **Bedework**

**<http://www.bedework.org>**

Bedework is an open-source, enterprise calendar system for higher education designed to conform to current calendaring standards. Built in Java, Bedework has a centralized server architecture allowing immediate update of public and personal information. Based on version 2 of the UW Calendar, it has been rearchitected and reimplemented to support many new features. Features:

- It supports iCal, iTIP, CALDAV;
- Full CalDAV access control is available allowing the sharing of calendars and calendar entities based on authentication status and identity.
- Support for scheduling of meetings including invitations and their responses is available. Caldav scheduling (still in draft) is also supported.
- Freebusy is supported and the busy time is displayed as attendee lists are built. In the near future it will be possible to carry out scheduling with other bedework systems through real-time protocols.
- Access control allows users to determine who may attempt to schedule meetings with them. Automatic responses to meeting requests is an option which can be used to enable simple resource scheduling by, for example, 'inviting' a resource to a meeting.
- Bedework supports public events and calendars. All public entities are subject to full access control allowing an institution to limit visibility of events and calendars to specific groups, users or any authenticated user. Events and calendars may be world readable for guest access. The public view is configured through preferences allowing administrators to change the default skin, the default view and add or remove subscriptions from the public view.
- Support is available for departmental "calendar suites" allowing sub-organizations to maintain their own calendars with whatever degree of visibility is appropriate. Departmental events are owned by a special departmental owner to which preferences are attached allowing special skins for the departmental view.

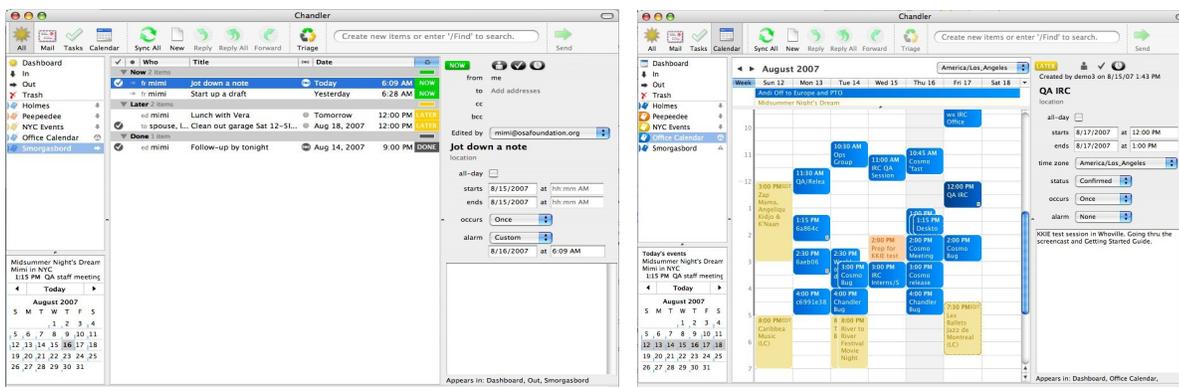
## **Chandler**

**<http://chandlerproject.org>**

Chandler consists of a cross-platform (Windows, Mac OS X and Linux) Chandler Desktop application and Chandler Hub, a sharing service and web application. Chandler is open source and standards-based. It integrates

email, calendaring, sharing, tasks and todo in a novel approach called Triaging. Among the features:

- Context sensitive Who and Date columns dynamically display item metadata
- Create and edit Notes, Messages, Tasks and Events
- Set up special Chandler IMAP folders to move messages from your favorite email application into Chandler Desktop
- Designate items for NOW or LATER
- Set up Ticklers to automatically re-focus your attention on an item at a later date and time
- Events are automatically triaged based on when they happen
- Address events to send them as invitations
- Mark emails as tasks to add them to your task list
- Schedule tasks on your calendar
- Chandler Collections can hold any kind of item: notes, messages, tasks and events
- A single item can be in as many collections as you want
- See all the collections an item appears in
- Use the Quick Entry field to create notes, messages, tasks and events with a set of simple commands
- Search across all of your collections
- Overlay multiple calendars
- Get a summary of what's on your schedule in the Preview Pane
- Navigate the calendar with the Mini-Calendar
- Get a sense of how full your days are with the mini-calendar Busy-Bars
- Use the Quick Entry field to create events, type event dates in plain English
- Create recurring events: Daily, weekly, biweekly, monthly events
- Set alarms for before or after events
- Use time zones; or manage your calendar without time zones
- Hand out View-Only or View and Edit Chandler Sharing URLs to friends and colleagues
- Provide collaborators with easy access to shared information from Chandler Hub in any web browser
- Collaborators can view and edit shared collections without having to sign up or log into a Chandler Hub account
- See who last edited an item and when
- Manage and resolve conflicts
- Send items to other Chandler Desktop and email clients
- Edit and Update items with other Chandler Desktop applications
- Receive items sent by email from other Chandler Desktop applications
- Receive emails sent from any email clients through your special Chandler IMAP folders



## Darwin Calendar server

<http://trac.macosforge.org/projects/calendarserver/wiki>

The Darwin Calendar Server is a standards-compliant server that allows multiple users to collaboratively share calendaring information. It provides a shared location on the network to store schedules, and allows users to send each other and manage invitations. In order to provide interoperability with multiple calendaring clients, the server implements the CalDAV protocol, which is an extension of WebDAV.

## DotProject

<http://www.dotproject.net/>

PHP web-based project management framework that includes modules for companies, projects, tasks (with Gantt charts), forums, files, calendar, contacts, tickets/helpdesk, multi-language support, user/module permissions and themes.

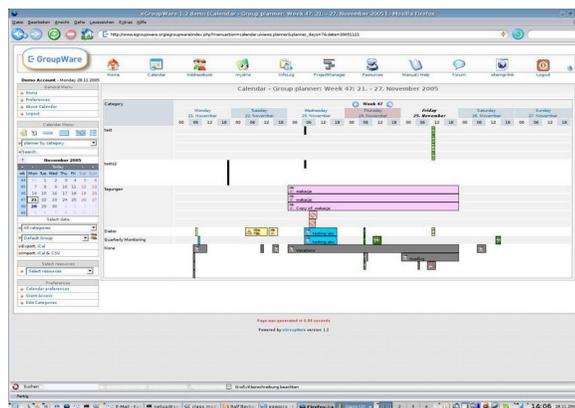
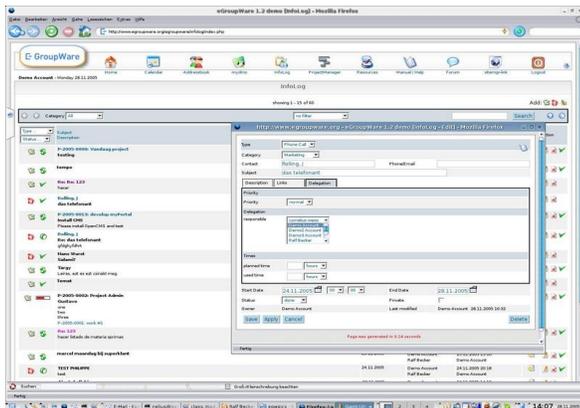
## eGroupware

<http://www.egroupware.org>

eGroupWare is a free enterprise ready groupware software for your network. It enables you to manage contacts, appointments, todos and many more for your whole business. It comes with a native web-interface which allows to access your data from any platform all over the planet. Moreover you also have the choice to access the eGroupWare server with your favorite groupware client (Kontact, Evolution, Outlook) and also with your mobile or PDA via SyncML. At the time, it supports more than 25 languages including rtl support.

Features:

- Calendar - Powerful calendar which also supports scheduling of groups, resources and even contacts.
- AddressBook - Contact-manager using SQL or LDAP
- WebMail - Userfriendly IMAP mail-client
- Infolog - Powerful replacement for ToDo, Notes and Phonecalls, CRM customer relationship management.
- ProjectManager - Element based Projectmanager highly integrated with all other eGW apps.
- Resources - Resources management (inventory) and booking tool integrated into eGW calendar.
- FileManager - Managing files stored in the VFS (virtual file system) based on files, sql-db or webdav.
- SiteMgr - Userfriendly intuitive web autoringsystem with fine granulated access control lists.
- Timesheet - time-tracker application well integrated with projectmanager.
- Tracker - tracking of bugs or other, integrated with projectmanager.
- Wiki - eGW's eGW's Tavi:WikkiTikkiTavi clone.
- KnowledgeBase - Knowledge base.
- Workflow engine



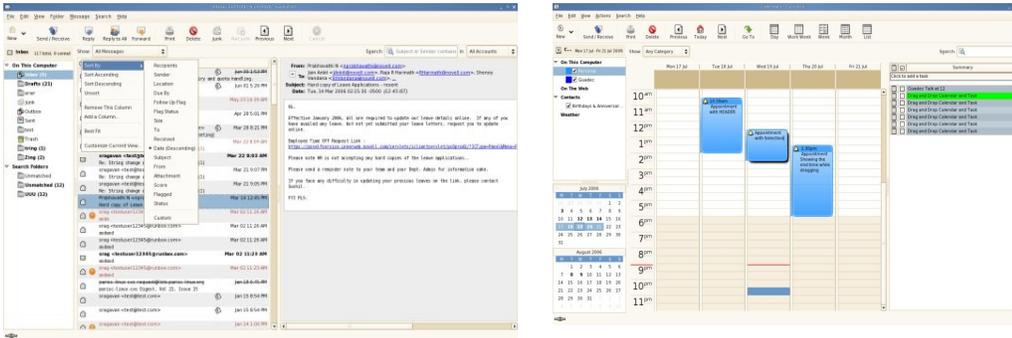
## Evolution

<http://www.gnome.org/projects/evolution/>

Evolution provides integrated mail, addressbook and calendaring functionality to users of the GNOME desktop.

Among the features:

- Intelligent Junk Mail Control
- Search Folders (formerly called vFolders)
- support for signing and encrypting mail via GPG (GNU Privacy Guard) and S/MIME
- Desktop Integration
- Filters
- Searching
- Web calendars
- support for Exchange 2000/2003 and GroupWise
- Multiple Account Management



## FIN calendar server

<http://www.theatlantis.net/>

Fin is Java based, platform independent and has been tested on Linux, Win32, MacOSX, Solaris. For persistence Fin use Java Persistence API and can be installed on all the popular open source databases like PostgreSQL, MySQL, Hypersonic, SapDB or commercial databases like Oracle. Major features:

- Easy GUI based installer
- Support for major client desktop clients such as ThunderBird, Evolution, iCal and Outlook
- Integrated LDAP AddressBook
- Email Notification
- Shared and private calendar support
- Full support for meeting scheduling and RSVP
- Protocol support for: WCAP, iCalendar, IMip/ITip

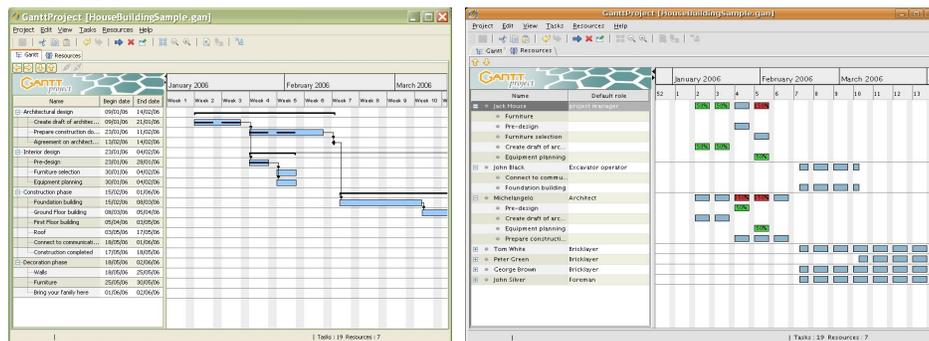
## GanttProject

<http://ganttproject.biz/>

GanttProject is a free and easy to use Gantt chart based project scheduling and management tool. Our major features include:

- Task hierarchy and dependencies
- Gantt chart
- Resource load chart
- Generation of PERT chart
- PDF and HTML reports
- MS Project import/export
- WebDAV based groupwork

The application is cross-platform (written in java) and can be executed in reduced form directly through Java WebStart.



## Group-Office

<http://www.group-office.com/>

Group-Office is a Groupware suite containing a base system and different modules. The modules are designed in a way that groups of people can collaborate online. Shared calendars, addressbooks, projects, files and e-mail are the key features of the project. Users use their favorite browser to access their groupware from all over the

world. Features:

- **Addressbook:** You can create templates for both E-mail messages and OpenOffice.org templates. By linking the addressbook to these templates you can fill those documents automatically with address info and automatically generated beginnings such as dear sir Smith. With these templates it's possible to create mailing lists. It's also possible to create custom fields for your own personal requirements. Companies are separated from the contacts for easy administration and a quick overview of employees.
- **Filesystem:** The filesystem module is used to store your personal files online and share them if you want with other users. It looks like the filemanager people would expect. You can easily cut, paste and copy files to different directories that you can access by a treeview. Sharing files online with your relations was never easier. By creating Samba shares to the files and the upcoming webDAV support this filemanager is very easy to enroll in an existing filesystem.
- **Calendar:** In a corporate environment a calendar can't be missed. This calendar allows you to plan all sorts of recurring events and set reminders for them. The easy to use interface will never let you miss an event. It's easy to set up multiple calendars and share them with other users. The calendar supports the import and export of the popular iCalendar standard. This makes it possible to synchronise the Group-Office calendar with other calendar software that support the iCalendar protocol.
- **email:** With the e-mail client you can add your IMAP and POP3 mail accounts and view your e-mail online with this easy to use mail client. It supports multiple folders and filters. The mail composer can create both HTML and plain text e-mails.
- **projects:** With the projects module you can easily administrate your working hours. By using a clock in and clock out function you'll get accurate and easy time registration. You can load the working hours back based on project, client or employee.

### **Kolab**

<http://kolab.org/>

Kolab is a secure, scalable and reliable groupware server. It is formed by a number of well-known and proven components or the standards tasks such as E-Mail, Directory Service and Web Service. Kolab adds intelligent interaction between the components, a web administration interface, management of free-busy lists etc. Various clients can access Kolab, among them Kontact (KDE), Outlook (Windows) and Horde (Web).

Full seamless support of mixed clients environments (Outlook/KDE/Web), a web administration interface, supported languages: Deutsch (German), English, Français (French), Nederlands (Dutch), a shared address book with provision for mailbox users as well as contacts, POP3 as well as IMAP4(rev1) access to mail, Client-side full support of S/MIME E-Mail encryption possible (officially Sphinx-interoperable).

### **Kontact**

<http://kontact.kde.org/>

The KDE Kontact Personal Information Management suite unites mature and proven KDE applications under one roof. Thanks to the powerful KParts technology, existing applications are seamlessly integrated into one. The components of KDE Kontact are tailored to work well with each other. This results in features like intuitive drag-and-drop between appointment handling, task lists and contacts. KDE Kontact supports various groupware servers. When using these servers your workgroup has access to features like shared email folders, group task lists, calendar sharing, central addressbooks and meeting scheduling.

### **MailArchiva**

<http://www.mailarchiva.com/>

MailArchiva is a state-of-the-art email archiving system for companies of all sizes. It works in conjunction with popular mail systems to archive all incoming, outgoing and internal emails. The MailArchiva system consists of multiple agents and an archiving server; the archiving server is entirely cross-platform and can run on any operating system. Several agents are included that provide for connectivity to Microsoft Exchange, Postfix and other mail systems. Among the features:

- granular archiving rules
- compression
- encryption
- search & retrieval
- auditing



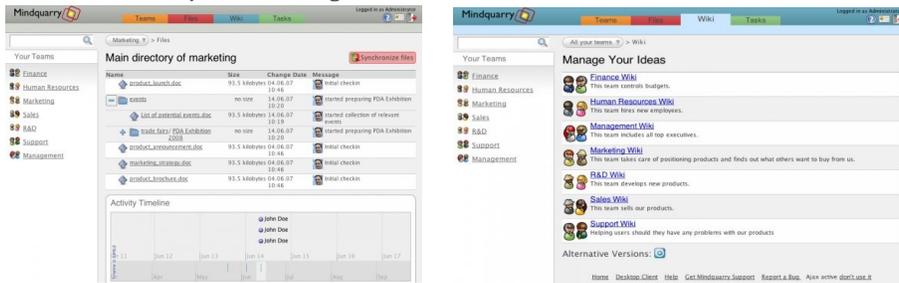
## MindQuarry

<https://www.mindquarry.org/>

Mindquarry Collaboration Server is a web-based collaboration platform that supports your teamwork by combining file sharing, Wiki for knowledge management and collaborative task management. It provides 4 main views:

- Teams: With Mindquarry teams you can analyse and manage your teams and team members.
- Files: Mindquarry file sharing stores all your documents and keeps a history of changes.
- Wiki: The Wiki is your personal idea-store, blackboard and glossary for sharing information and creativity.
- Tasks: With the task management block you can see your todo list and assign tasks to your team members.

It provides a java-based desktop client, that allows for synchronization of Workspaces, quick creation of Wiki content and easy task management.



## OpenGroupware

<http://www.opengroupware.org/>

Opengroupware is a complete groupware server, featuring:

- Contact Management: Saves and organizes thousands of personal and company contacts, telephone, fax, addresses, e-mail contact addresses just to mention a few. Easily configurable with extensive and speedy search capabilities, categorization and remotely accessible.
- Group Calendar: Manage meetings and events for an entire group or individual set of accounts. Attach notes to appointments. Link appointments to contacts and projects. Automatic detection of conflicts.
- Resources Planner: Keep track of your company's resources such as automobiles, projectors or conference rooms. Searchable timeslots to check for availability of specific resources or resources assigned to a specific group. Automatically check for resource conflicts upon appointment creation.
- Task Management: You may organize tasks by person, group or specific project. "Todo" lists can be ordered by priority, due date, processing status etc. An overview of all tasks is stored in the projects application as well as sorted by company. All tasks are also summarized on the personal page.
- E-Mail Client: The integrated (IMAP4 based) e-mail client offers a comfortable environment for reading and creating e-mails as well as organizing email by folders. A global, and configurable contact directory eliminates the endless search for the correct e-mail address.
- Projects and Documents: Share documents and files, locally or remotely, in groups or privately in a project centric environment. Link projects to customer or employee contacts and or link tasks to projects. Store email, Office documents such as faxes in the document archive which can be associated with any project. Finally, link any OGo application with your project. A true project centric environment.
- News: The Newsboard gives you the opportunity to publish important information or articles to the Intranet. Defineable headlines that can be linked to other related articles or news items. In addition, the Newsboard shows upcoming appointments and tasks and serves as a personal page.
- Palm Sync: Using the Palm application you can synchronize data from your Palm device to the other OGo

applications. Use the Palm application to resolve remote synchronization conflicts and to configure how and when Palm data is synchronized with the global enterprise database.

- Usermanager: Management of accounts, groups and configurations for OGo are done using a simple and intuitive web interface. Easily create teams, location teams and accounts, resources and resource groups or configure server options. The OGo Usermanager Application provides extremely fine grained configuration options.

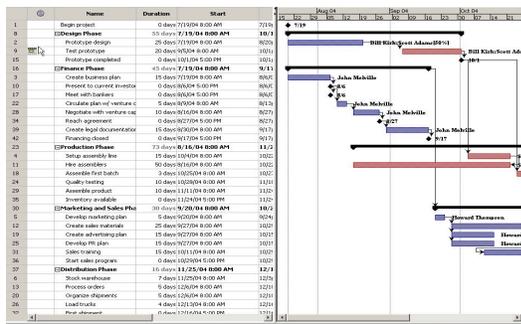
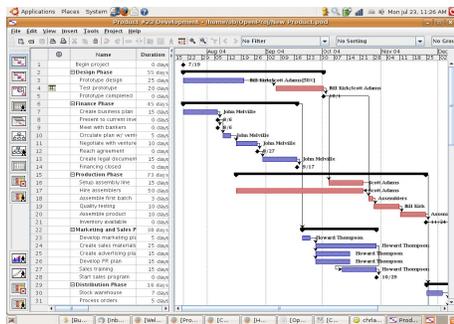
There is an open source plugin for proprietary clients like Outlook, developed by the french company Dawan, and available at <http://open-source.dawan.fr/Plug-in-Outlook.html>

## OpenProj

<http://openproj.org/openproj>

OpenProj is a free, open source desktop alternative to Microsoft Project. The OpenProj solution is ideal for desktop project Click to enlarge in a new windowmanagement and is available on Linux, Unix, Mac or Windows. OpenProj is a complete desktop replacement of Microsoft Project and even opens existing native Project files. The OpenProj solution has Gantt Charts, Network Diagrams (PERT Charts), WBS and RBS charts, Earned Value costing and more. It features several views:

- Gantt Chart
- Tracking Gantt Chart
- Network Diagram
- Resource View
- Projects View
- WBS Chart
- RBS Chart
- Report View
- Task Usage Detail
- Resource Usage Detail



## OpenWorkbench

<http://www.openworkbench.org>

Open Workbench is a robust, mature tool for project scheduling and management. It conforms to and supports the underlying ideals of project management while presenting information in a way that is intuitive and easy to learn. Tens of thousands of project managers around the world use Open Workbench to plan and execute complex projects. All projects proceed through a series of tasks (or stages) during their lifecycle. By using Open Workbench, these critical tasks or stages become more manageable, making projects more likely to succeed. Open Workbench enables project managers to create work breakdown structures (WBS) with tasks and milestones, set baselines, schedule project plans with dependencies, assign resources to tasks, schedule work on tasks over a period of time, adjust the schedule as actual work is recorded, link master and subprojects and schedule resources across them, and conduct earned value analysis. Once the project plan is created, project managers can schedule tasks with assigned resources for completion. For large projects, scheduling can be an intricate process that balances task relationships, resource availability, and task duration. The powerful Auto Schedule feature in Open Workbench is designed to handle just this type of complexity. With the click of a button, the Auto Schedule feature uses an internal set of rules to create a schedule that takes into account task constraints, dependencies, priorities and resource constraints—automatically generating the best method for project completion. When the plan is approved, the project manager can create a baseline, which gives a snapshot of the project and allows revisions to be compared against the original plan.

Project managers have access to a library of project views in Open Workbench, allowing them to customize the information display to their needs. Multiple views are supported, including Gantt and Phase Level Gantt charts, as well as logical, PERT-style displays. Organizations can also define and distribute custom views as corporate standards.

Modifications are required when a project's scope changes, whether due to new requirements, lack of resources

or time and budget constraints. Open Workbench identifies these potential problems and trends before they affect a project by performing the following analyses:

- Critical Path: analyzes isolated dependency networks and tasks with negative float.
- Estimated Time to Complete: calculates the estimated usage required to complete a task and ascertains if deadlines will be met.
- Earned Value: analyzes the true progress of a project, taking into account the effort expended as well as what has been achieved.

Managers can refine the project schedule based on these analyses and, using the project baseline, compare scope changes with the original plan for detailed analysis. Having the right information to quickly mitigate potential problems is crucial to the successful delivery of work.

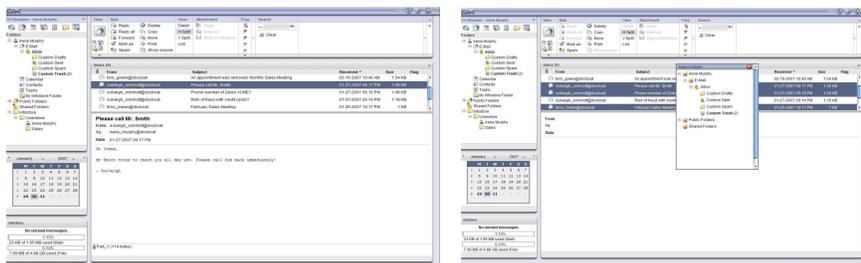
### OpenXchange

[http://www.open-xchange.com/header/community\\_area.html](http://www.open-xchange.com/header/community_area.html)

Open-Xchange Community Edition delivers Smart Collaboration. Smart Collaboration simplifies everyday life, work and social interactions. It is based on AJAX, open source software and open standards and offers reliable and scalable messaging and advanced collaboration solutions. Specifically, Open-Xchange Community Edition offers email, calendar, contacts, tasks, documents, bookmarks and knowledge entries. Unique features of the Open-Xchange Server are:

- Infostore: a common repository of documents, bookmarks and knowledge entries;
- Documail: the integration of email and document sharing/version control;
- Smart Links between all collaboration objects;
- Smart Privacy that let's users define read and write access to all collaboration objects
- Universal Access: the ability to access the server from the widest variety of browsers, clients and mobile devices.

Organizations use Open-Xchange's web-based administration module to add, delete and change user roles and entitlements.



### PHPgroupware

<http://phpgroupware.org/>

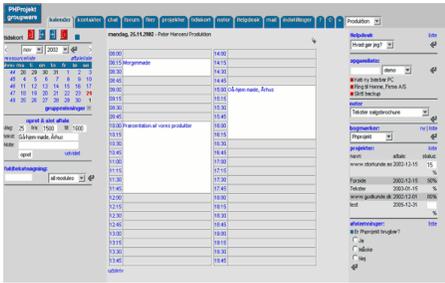
phpGroupWare is a fully featured, web based messaging, collaboration and enterprise management platform. phpGroupWare comes with over 50 applications that can be mixed and matched according to your needs. Some of the most powerful features we offer include:

- Contacts management
- Email
- Shared calendar
- Web content and document management and sharing
- Project management
- Issues tracking

### PHProjekt

<http://www.phprojekt.com/index.php?&newlang=eng>

PHProjekt is a modular application for the coordination of group activities and to share informations and document via the web. Components of PHProjekt: Group calendar, project management, time card system, file management, contact manager, mail client and many other modules. PHProjekt supports many protocols like ldap, xml/soap and webdav and is available for 38 languages and 9 databases. It is SOX compliant by history tracking and soft delete - Supports mysql, postgres, sqlite, firebird, oracle, ms-sql, db2; project management, time cards, contact management, forum, chat, calendaring, files, voting management, todo and reminders.



## Project-open

<http://www.project-open.org/>

The aim of the finance module is to provide the company's senior management with a real-time view to all relevant financial information of the company. For this purpose [project-open] provides a number of specialized modules that cover all important areas of small and medium-sized project organizations. The main features are:

- Finance- Invoicing, Timesheet management, Travel costs, Fixed costs, Provider costs (via Web interface), Cost Center Permissions, Financial reporting, Export interfaces to Excel, KHK Kaufmann, ContaPlus, SQL-Ledger and SAP-FI
- Project Management: The PM module integrates project-related information from all [pof] modules into "project rooms" or "e-rooms", allowing you to collaborate online with providers and customers (Extranet). Sophisticated access permissions allow you to protect your business critical information. Features: Projects, subprojects and project task, Project templates, Project-related chat rooms, Project reports and -tracking, Risk Management, "Earned Value" project completion tracking, Gantt scheduling, Project filestorage, Project discussions, Project news, Incident management, Import interface to MS-Project, Integration with cost management, Integration with invoicing
- Customer Management: The Customer Management module ("CRM-light") unifies all functionality related to the management or customer relationships. Features: Customer contact management, Integrated customer, interaction history, Online web registration, Customer tracking, Customer classification and status engine, Import interfaces with MS-Outlook and ACT!
- Supplier Management: The Supplier Management Module unifies all functionality related to the management of suppliers in project-oriented organizations. The strategic suppliers for this type of businesses are usually freelancers and other types of human resources, so the boundary between HR and supplier modules is blurry. Features: Supplier contact management, Integrated supplier interaction history, Freelance skill database, Supplier web invoice tracking, Supplier quality module.
- Human Resources Management Module: The Human Resources Management Module mainly deals with the management of staff employees. Features: Employee payroll information, Employee recruitment process, Employee portraits are shown together with their office.
- Knowledge Management Module: Full-text search engine for Intranet, discussions and external files, "Expert Finder" to localize a domain expert and post questions, "Knowledge Market" evaluates knowledge supply and use, Extensible permission management to control the access to business critical knowledge resources
- Translation Module: Translation workflow, Translation quality, Translation project status reports, Integration with invoicing module
- Data Warehouse & Business Intelligence: Multidimensional view to all corporate data, Predefined multidimensional cubes, Implementations available for open-source (Mondrian) and commercial (MS-SQL-Server) OLAP servers, Predefined models for extraction of CRM key performance indicators (in collaboration with Loyalty Matrix)
- Content & Community Modules: [project-open] is based on the OpenACS community platform, so that all OpenACS modules are also available for [project-open]. These modules include: A powerful Online store, Classified Ads (second-hand market), Public discussion forums, Webmail, Jabber Chat, Blog & Wiki
- Systems Integration: Authentication integration with corporate LDAP server, "Multi-Company" allows to manage several separated companies with different URLs on a single server, XML-RPC Interface.

## TeamWork

<http://www.twproject.com>

Teamwork is a web based software solution for managing work and communication through projects in any field. Groupware and project management features are used in an integrated environment, from which you can coordinate and manage hundreds of open projects at once. Teamwork is easy to use, so that an extended team can contribute; it is also capable of handling quite complex projects. Among the features:

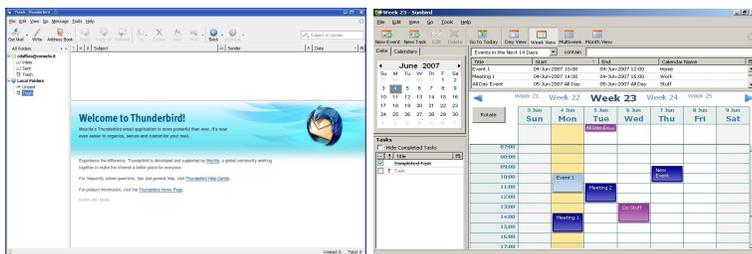
- Groupware: use the shared agenda across the team, so Teamwork works as group calendar server, add meeting discussion points and establish a committee, synchronize Teamwork's agenda with Microsoft Outlook's and iCalendar clients and vice-versa, configure holidays with a "days in year", send and receive messages through multiple media (RSS included), evaluate required and current workload and work load, prioritize the assignments, prepare meetings through shared boards, share files through the project/tasks entry points
- Project management: implicit team or workgroup definition, with its security settings (shared agenda, send messages, operator load, ...), personal dashboard, active work log recording, and hence cost control, search forms, milestones, dependencies, issue tracking, diary, boards, audit, deliverables, project complexity/risk forms
- Document management: You can upload and download documents through the web interface as project attachments. Versioning, file locking, authoring and classification are all supported. Do you want to spare the hassle of upload/download of files already secured and classified on the server file system? No need to worry: you are free to choose whether to manage documents through secure upload/download from Teamwork's repository, or to link projects to a set of folders and files on your file servers. In the latter case, the browser acts as a window on the file server, giving a comfortable remote access, emulating file system functions (create directories, open files) with the add-on of file zipping functionality.
- Smart features: Search anywhere from everywhere, Query by example (QBE), Search and saveable filters, Dynamic combos, Skins, languages, dates, currency, Compute in fields, Tree structure always surfable, Dynamic zooms and time bars, Custom forms and prints, discussion boards.

## Thunderbird

<http://www.mozilla.com/en-US/thunderbird/>

Mozilla Thunderbird is an advanced email and collaboration client, with several advanced features:

- advanced folder views
- Message Tagging
- Message History Navigation
- Improved Search
- Saved searches
- Phishing Protection
- Robust Privacy
- Extensible through plugins and additional tools, including a calendar plugin (Lightning)



## Zimbra

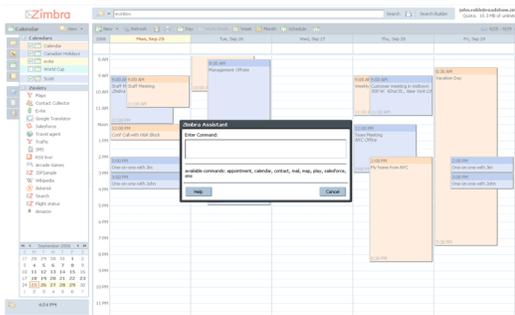
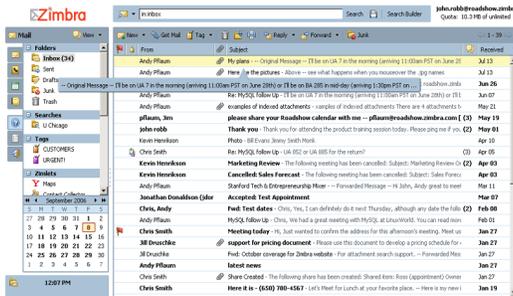
<http://www.zimbra.com>

Zimbra Collaboration Suite (ZCS) 4.5 is a truly modern, innovative messaging and collaboration application. Zimbra Server is the core of Zimbra Collaboration Suite; it is designed with an extremely stable and modular architecture using proven open source technologies. Zimbra Server provides tremendous flexibility because it contains all of the components necessary to run your Linux or Mac based email and calendar messaging infrastructure out of the box; it also connects to just about every popular end-user client through the many standard protocols it supports. Uses industry standard open protocols – SMTP, LMTP, SOAP, XML, IMAP, POP, iCal, CalDAV; Zimbra Collaboration Suite features a state-of-the-art Ajax web client. Features:

- Conversation View hides redundant messages that clutter up your inbox
- Search Builder is a simple "WYSIWYG" tool to make advanced queries; save favorite searches as "virtual" message folders
- "Tagging" automatically highlights email from important people
- You can view attachments (like Word or Acrobat files) immediately as HTML instead of downloading and opening them in another applications

- Supports multiple Address Books (personal and server-side Global Address List)
- Easily share Address Books and contacts with peers
- Autocomplete from personal and/or Global Address List (GAL)
- Create personal distribution lists
- View multiple schedules as 'overlays' on your calendar, one click to toggle them on and off
- Complete resource and group scheduling, with delegated access
- Share and publish calendars with peers
- Subscribe to remote calendars as iCal feeds
- Create, share, and publish rich Documents online
- WYSIWYG editor makes it easy to add spreadsheets, images, etc.
- Turn Documents into collaborative Wiki pages
- Simple sharing model common to Address Book, Calendar, and Documents
- Share internally (read and/or write access) or publish externally with a simple URL (read only).

Recently a disconnected client was released, along with improved support of traditional email clients.



# Document management

## **Alfresco**

**<http://www.alfresco.com>**

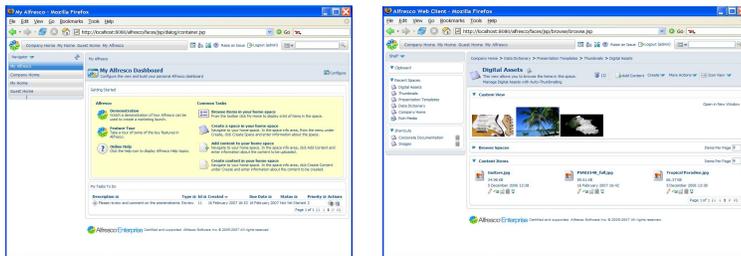
Alfresco is the leading open source alternative for enterprise content management. The open source model allows Alfresco to use best-of-breed open source technologies and contributions from the open source community to get higher quality software produced more quickly at much lower cost. Our goal is to not only provide an open source offering but to surpass commercial offerings in terms of features, functionality and benefits to the user community. Alfresco is built by a team of leading members from Documentum and Interwoven with 15 years experience in Enterprise Content Management (ECM), including the co-founder of Documentum. It features Enterprise Content Management (ECM), Document Management, Collaboration, Records Management, Knowledge Management, Web Content Management, Imaging.

Among the highlights:

- **Alfresco Document Management:** Simple Virtual File System Interface, Email-Like Rules Configuration, Google Search - Direct from FireFox or IE, Yahoo-like browsing, SmartSpaces - Best Practice Collaboration Spaces, Transparent Lifecycle Support
- **Document Management Functionality:** Simple Content Contribution, Automatic Meta-data Extraction and Content Categorization, Advanced Distributed Search, Transparent Format Transformation Services, Library Services, Smart Collaboration Spaces, Integrated Simple and Complex Workflow, Dashboard Access, Security
- **Supported Interfaces:** CIFS/SMB Microsoft File Share Protocol, JSR-168 Portlet Specification, JSR-127 Java Server Faces, FTP, WebDAV, Web Services, REST
- **Designed to meet DOD 5015.2 Requirements**
- **Drag-and-Drop Records Management Capture from Desktop Tools** - Support for Microsoft Office, Microsoft Exchange and Open Office desktop tools through a standard Windows Explorer interface
- **Automatic Metadata Extraction and Classification**
- **Complete auditing and workflow integration** - Service Oriented Audit of every service invocation to a database table with dashboard access
- **Extensible Records Management Rules Support**
- **Automatic Long-Term Archival Format Conversion** - Automatic conversion from proprietary office

formats to long-term vendor neutral formats such as Open Document Format (ODF) and Portable Document Format (PDF)

- Simple Export for Archival
- Zero Footprint on the client in both web and client server environments
- The industry's most scalable, standards based JSR-170 content repository
- High-Availability, Fault Tolerance and Scalability - Any number of machines, auto failover and clustering
- Simple to install, use and rollout
- Fileplans - Automatically classify and schedule records based upon pre-existing plans and standardized structures
- Type-Base Plans - Automatically classify and schedule records based upon pre-existing types
- Automated Lifecycle Management - Schedule, content and meta-data change activation based upon simple rules
- Automatic Document Numbering
- Retention and Archival Policies
- Disposition - Controlled and scheduled handling of archiving, holds, transfers, accessions and destruction using rules and automated processing
- Pre-population of Meta-Data - Impact management and automatic updates
- Dashboards - Pre-defined reports and metadata type definitions to search and screen records due for handling and handling exceptional cases
- DOD 5015.2 Administrator Templates - To support US Department of Defense records and filing requirement for metadata definitions, fileplans and functionality
- Rapid eDiscovery - Simply search across full-text content, fileplan structures, records management categories and types



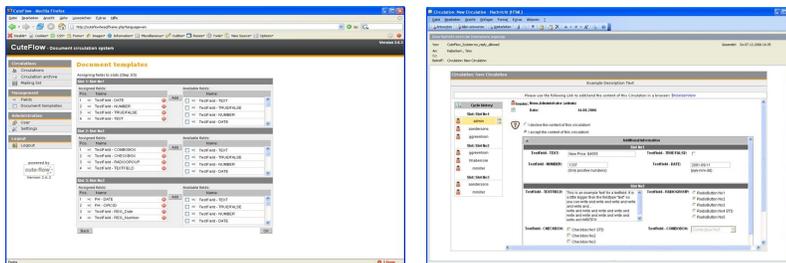
## CuteFlow

<http://www.cuteflow.org/>

CuteFlow is a web-based open source document circulation and workflow system. Users are able to define "documents" which are send step by step to every station/user in a list.

It's an electrical way for doing (i.e. internal) document circulations. A document can be assembled from input fields of different types. The fields can be filled with values by the receiver of the document directly in the users E-Mail-Client. After a completed circulation you will have a completely filled document. Also attachments to the document are possible (i.e. for illustration material).

All operations like starting a workflow, tracking, workflow-definition or status observation can be done within a comfortable and easy to use webinterface.

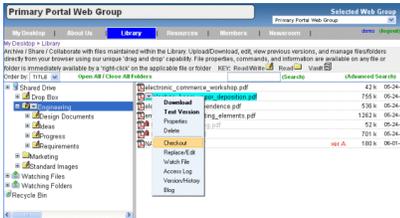


## EpiWare

<http://www.epiware.com>

Epiware is the open source alternative for Enterprise Document Management. It contains all of the cutting edge features and functionality. Enable your employees to collaborate on projects, share documents, create schedules, and manage tasks. Features:

- Linux compatible
- Manage multiple projects
- Calendar
- WIKI
- Tasking/Gantt Chart
- News room
- Search document contents and metadata
- Control folder access via groups and/or users
- Document access history
- Document version history
- Check-in and Check-out

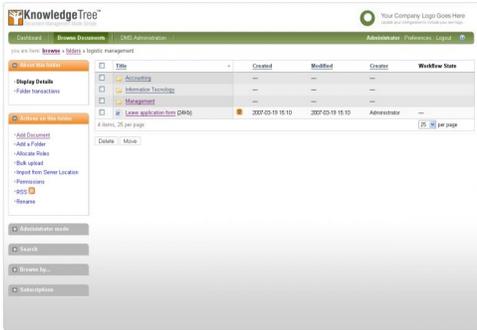


## KnowledgeTree

<http://www.knowledgetree.com/>

KnowledgeTree is document management made simple: easily secure, share, track and manage the documents and records your organization depends on. KnowledgeTree is the leading commercial open source electronic document management software designed for the SMB and departmental user. Features:

- Easy to use web interface
- Persist Microsoft Outlook email messages and email attachments to the document repository
- Document storage on web-based intranet/extranet platform promotes collaboration
- Utilize Tagging and Tag Clouds to share documents with your Colleagues and let them know what other people are working on
- Publish document or folder changes via RSS and consume RSS feeds on the KnowledgeTree AJAX Dashboard
- Search document contents (Microsoft Office, OpenDocument, PDF, XML, HTML, RTF, text) and metadata using simple single string search or create complex boolean search criteria
- Sophisticated but easy to use document version management using well known "check-in" and "check-out" concepts
- Powerful group and role-based security model allows for document access and action control management
- Granular and detailed auditing of all document activities
- Ability to bulk load documents using ZIP files or from server file-system
- Supports international languages including iconographic languages such as Japanese, Korean, Simplified and Traditional Chinese
- Build sophisticated workflows that manage the generation of document and notify certain roles or groups when they are required to act
- Limit document access during the workflow process to only users who require it
- Assign automatic workflow triggers to specific document types or folders
- Link documents together allowing documents of similar concepts or subject to be easily managed as groups
- Discuss documents using built-in discussion forums
- Controlled emailing of documents held within the repository
- Document and folder subscription technology allows users to receive notifications when document actions are performed
- Save standard searches so that users of the system have access to them from the system dashboard and browse views
- Access RSS feeds of changes to folders and documents
- Convert documents to Adobe PDF format for easy distribution and storage



## Nuxeo ECM

<http://www.nuxeo.com/en/products/>

Nuxeo EP is a robust, extensible, global Enterprise Content Management (ECM) server-side solution available as Open Source Software. Deployed on a Java EE 5 application server, it leverages the full potential of the Java EE 5 platform, including: clustering, high-availability, manageability, integration within your information system and development tools support. Nuxeo EP is designed to be used from a web browser such as MS-IE or Firefox, with a rich, Ajax-based interface, from an office suite such as MS-Office, or from a Nuxeo RCP application. The Nuxeo EP default configuration provides both collaborative work and publication through a functional separation between workspaces and sections:

- Workspaces: provide end-users with a toolset to achieve document management and collaboration (document sharing, versioning, relations, access rights, etc.). Workspaces offer an innovative approach to leverage teamwork and to manage documents in a collaborative way (from the creation to the archiving phase).
- Sections: provide hierarchical views to access the validated content produced in workspaces and can be used as a website hierarchy or as a file plan.

Among the features:

- rights and permissions
- Dashboards
- Search engine
- Document and information structure
- Document creation process
- Document editing and revision
- Access rights for metadata
- Document relations
- Notification management
- Document workflow
- History and audit

The server can be accessed through the web interface or using the rich client, that adds XHTML editing, photo editing and manipulation and dedicated portlets.



# Content management systems

## **Drupal**

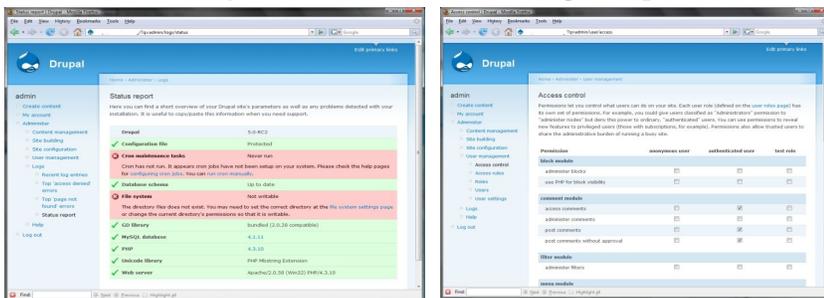
**<http://drupal.org>**

Drupal is a free software package that allows an individual or a community of users to easily publish, manage and organize a wide variety of content on a website. Among the features:

Collaborative Book - Our unique collaborative book feature lets you setup a "book" and then authorize other individuals to contribute content.

- Friendly URLs - Drupal uses Apache's mod\_rewrite to enable customizable URLs that are both user and search engine friendly.
- Modules - The Drupal community has contributed many modules which provide functionality that extend Drupal core.
- Online help - Like many Open Source projects, we can't say that our online help is perfect but have built a robust online help system built into the core help text. Available to you on your own site.
- Open source - The source code of Drupal is freely available under the terms of the GNU General Public License 2 (GPL). Unlike proprietary blogging or content management systems, Drupal's feature set is fully available to extend or customize as needed.
- Personalization - A robust personalization environment is at the core of Drupal. Both the content and the presentation can be individualized based on user-defined preferences.
- Role based permission system - Drupal administrators don't have to tediously setup permissions for each user. Instead, they assign permissions to roles and then group like users into a role group.
- Searching - All content in Drupal is fully indexed and searchable at all times if you take advantage of the built in search module.
- User authentication - Users can register and authenticate locally or using an external authentication source like Jabber, Blogger, LiveJournal or another Drupal website. For use on an intranet, Drupal can integrate with an LDAP server.
- Polls - Drupal comes with a poll module which enables admins and/or users to create polls and show them on various pages.
- Templating - Drupal's theme system separates content from presentation allowing you to control the look and feel of your Drupal site. Templates are created from standard HTML and PHP coding meaning that you don't have to learn a proprietary templating language.

- Threaded comments – Drupal provides a powerful threaded comment model for enabling discussion on published content. Comments are hierarchical as in a newsgroup or forum.
- Version control – Drupal's version control system tracks the details of content updates including who changed it, what was changed, the date and time of changes made to your content and more. Version control features provide an option to keep a comment log and enables you to roll-back content to an earlier version.
- Blogger API support – The Blogger API allows your Drupal site to be updated by many different tools. This includes non-web browser based tools that provide a richer editing environment.
- Content syndication – Drupal exports your site's content in RDF/RSS format for others to gather. This lets anyone with a News Aggregator browse your Drupal sites feeds.
- News aggregator – Drupal has a powerful built-in News Aggregator for reading and blogging news from other sites. The News Aggregator caches articles to your MySQL database and its caching time is user configurable.
- Permalinks – All content created in Drupal has a permanent link or "perma link" associated with it so people can link to it freely without fear of broken links.
- Multi-language – Drupal is designed to meet the requirements of an international audience and provides a full framework to create a multi-lingual website, blog, content management system or community application. All text can be translated using a graphical user interface, by importing existing translations, or by integrating with other translation tools such as the GNU gettext.
- Analysis, Tracking and Statistics – Drupal can print browser-based reports with information about referrals, content popularity and how visitors navigate your site.
- Logging and Reporting – All important activities and system events are captured in an event log to be reviewed by an administrator at a later time.
- Web based administration – Drupal can be administered entirely using a web browser, making it possible to access it from around the world and requires no additional software to be installed on your computer.
- Discussion forums – Full discussion forum features are built into Drupal to create lively, dynamic community sites.
- Caching – The caching mechanism eliminates database queries increasing performance and reducing the server's load. Not only can the caching be tuned in real time, while your site is under load, but it has been successfully tested under a "slashdotting" and performed extremely well.



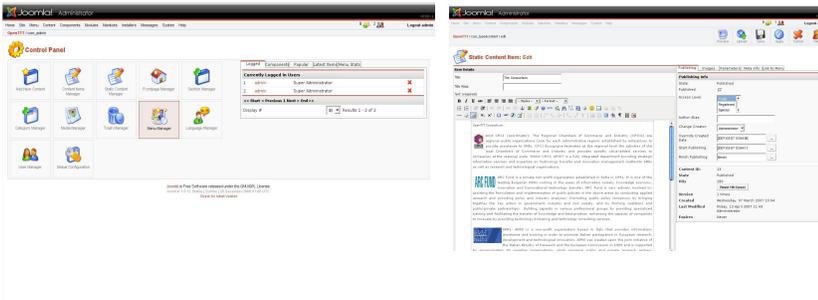
## Joomla!

<http://www.joomla.org>

Joomla! is an award-winning Content Management System (CMS) that will help you build websites and other powerful online applications. The basic Joomla! package is designed to be easy to install, even for non-programmers. Most people have no trouble getting our software up and running, and there is plenty of support available for newbies. We have a growing, active community of more than 40,000 friendly users and developers on our forums eager to help. Once Joomla! is installed and running, it is simple for even non-technical users to add or edit content, update images, and to manage the critical data that makes your company or organization go. Anybody with basic word processing skills can easily learn to manage a Joomla! site. Via a simple, browser-based interface you will be able to easily add new press releases or news items, manage staff pages, job listings, product images, and create an unlimited amount of sections or content pages on your site. ut of the box, Joomla! does a great job of managing the content needed to make your website sing. But for many people, the true power of Joomla! lies in the application framework that makes it possible for thousands of developers around the world to create powerful add-ons and extensions. Here are just some examples of the hundreds of available extensions:

- Dynamic form builders
- Business or organizational directories
- Document management
- image and multimedia galleries

- E-commerce and shopping cart engines
- Forums and chat software
- Calendars
- Blogging software
- Directory services
- Email newsletters
- Data collection and reporting tools
- Banner advertising systems
- Subscription services



## Plone

<http://plone.org/>

Plone is a ready-to-run content management system that is built on the powerful and free Zope application server. Plone is easy to set up, extremely flexible, and provides you with a system for managing web content that is ideal for project groups, communities, web sites, extranets and intranets.

- Plone is easy to install. You can install Plone with a click and run installer, and have a content management system running on your computer in just a few minutes.
- Plone is easy to use. The Plone Team includes usability experts who have made Plone easy and attractive for content managers to add, update, and maintain content.
- Plone is international. The Plone interface has more than 35 translations, and tools exist for managing multilingual content.
- Plone is standard. Plone carefully follows standards for usability and accessibility. Plone pages are compliant with US Section 508, and the W3C's AAA rating for accessibility.
- Plone is Open Source. Plone is licensed under the GNU General Public License, the same license used by Linux. This gives you the right to use Plone without a license fee, and to improve upon the product.
- Plone is supported. There are close to a hundred developers in the Plone Development Team around the world, and a multitude of companies that specialize in Plone development and support.
- Plone is extensible. There is a multitude of add-on products for Plone to add new features and content types. In addition, Plone can be scripted using web standard solutions and Open Source languages.
- Plone is technology neutral. Plone can interoperate with most relational database systems, open source and commercial, and runs on a vast array of platforms, including Linux, Windows, Mac OS X, Solaris and BSD.

Plone is a content management framework that works hand-in-hand and sits on top of Zope, a widely-used Open Source web application server and development system. To use Plone, you don't need to learn anything about Zope; to develop new Plone content types, a small amount of Zope knowledge is helpful, and it is covered in the documentation. Zope itself is written in Python, an easy-to-learn, widely-used and supported Open Source programming language. Python can be used to add new features to Plone, and used to understand or make changes to the way that Zope and Plone work. By default, Plone stores its contents in Zope's built in transactional object database, the ZODB. There are products and techniques, however, to share information with other sources, such as relational databases, LDAP, filesystem files, etc. Plone runs on Windows, Linux, BSD, Mac OS X, and many other platforms; double-click installers are available for Windows and Mac OS X, and RPM packages are available for Linux.



### Typo3

<http://typo3.com/>

TYPO3 is a free Open Source content management system for enterprise purposes on the web and in intranets. It offers full flexibility and extendability while featuring an accomplished set of ready-made interfaces, functions and modules. Among the features:

- Rich Text Editor (RTE)
- Intuitive UI
- Spell Checker
- Configurable UI Levels
- Undo / History
- Frontend or Backend Editing
- Internal Shortcuts
- "Live" Search & Replace
- Wizards
- Internal Search Engine
- Flexform Configuration
- TypoScript Language
- Template Management
- Designer-friendly Templating System
- CSS Styled Content
- Dynamic graphical menus
- Audit Trail
- Content Approval
- Pluggable Authentication
- Simultaneous Editing Warning
- Versioning
- Content Syndication
- Accessibility/WAI Compliant
- Multiple Page Editing



# VoIP, conferencing and messaging

## **Asterisk**

**<http://www.asterisk.org>**

Asterisk is the world's leading open source telephony engine and tool kit. Asterisk can be configured as the core of an IP or hybrid PBX, switching calls, managing routes, enabling features, and connecting callers with the outside world over IP, analog (POTS), and digital (T1/E1) connections. Asterisk runs on a wide variety of operating systems including Linux, Mac OS X, OpenBSD, FreeBSD and Sun Solaris; it can also be built out as the heart of a media gateway, bridging the legacy PSTN to the expanding world of IP telephony. Asterisk's modular architecture allows it to convert between a wide range of communications protocols and media codecs. Several projects add a web interface to provide simplified administration, for example FreePBX and TrixBox.

Among the features:

- ADSI On-Screen Menu System
- Alarm Receiver
- Append Message
- Authentication
- Automated Attendant
- Blacklists
- Blind Transfer
- Call Detail Records
- Call Forward on Busy
- Call Forward on No Answer
- Call Forward Variable
- Call Monitoring
- Call Parking
- Call Queuing
- Call Recording
- Call Retrieval
- Call Routing (DID & ANI)
- Call Snooping

- Call Transfer
- Call Waiting
- Caller ID
- Caller ID Blocking
- Caller ID on Call Waiting
- Calling Cards
- Conference Bridging
- Database Store / Retrieve
- Database Integration
- Dial by Name
- Direct Inward System Access
- Distinctive Ring
- Distributed Universal Number
- Predictive Dialer
- Privacy
- Open Settlement Protocol (OSP)
- Overhead Paging
- Protocol Conversion
- Remote Call Pickup
- Remote Office Support
- Roaming Extensions
- Route by Caller ID
- SMS Messaging
- Spell / Say
- Streaming Media Access
- Supervised Transfer
- Talk Detection
- Text-to-Speech (via Festival)
- Three-way Calling
- Time and Date
- Transcoding
- Trunking
- VoIP Gateways
- TDMoE (Time Division Multiplex over Ethernet)
- Allows for integration of physically separate installations
- Uses commonly deployed data connections
- Allows a unified dialplan across multiple offices
- supports FXS, FXO, MF and DTMF signalling, 4ESS and BRI.

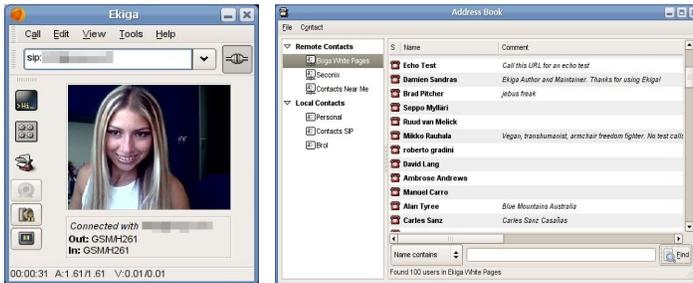
### **Ekiga**

**<http://www.ekiga.org/>**

Ekiga (formerly known as GnomeMeeting) is an open source VoIP and video conferencing application for GNOME. Ekiga uses both the H.323 and SIP protocols. It supports many audio and video codecs, and is interoperable with other SIP compliant software and also with Microsoft NetMeeting. Among the features:

- SIP Compliant
- Registrar Support
- Possibility to Simultaneously Register to Several Accounts
- Proxy Support
- Outbound Proxy Support
- Call Hold
- Call Transfer
- Call Forwarding on No Answer, on Busy, Always
- Configurable Port Ranges
- Instant Messaging
- DTMFs Support
- Message Waiting Indications Support
- ENUM Support

- Transparent NAT Support, Assisted NAT Support (STUN, IP Translation)
- SIP re-INVITE support
- iLBC, GSM-06.10, MS-GSM, G.711-Alaw, G.711-uLaw, G.726, G.721 and Speex Audio Codecs
- H.261 QCIF Video Code
- Dynamic Jitter Buffer
- Dynamic Threshold Algorithm for Silence Detection
- Echo Cancellation
- Wideband Codec Support
- Automatic Video Bandwidth Limitation
- Video Transmission/Reception Control



## OpenFire

<http://www.jivesoftware.com/products/openfire/index.jsp>

Openfire is an instant messaging (IM) and groupchat server that uses the XMPP protocol. It provides:

- Web-based administration panel
- Plugin interface
- Customizable
- SSL/TLS support
- User-friendly web interface and guided installation
- Database connectivity (i.e. embedded Apache Derby or other DBMS with JDBC 3 driver) for storing messages and user details
- LDAP connectivity
- Platform independent, pure Java
- Full integration with Spark Jabber client

The companion Spark client provides an easy and efficient interface to OpenFire, with drag&drop file transfer, VoIP, multi-protocol chat and IM.



## OpenMeetings

<http://code.google.com/p/openmeetings/>

Multi-Language Customizable Video-Conferencing and Collaboration. It features:

- Video/Audio
- See Desktop of any participant
- Multi-Language and Customizable
- Whiteboard with drawing, write & edit, dragNDrop, Resizing, Images (DragNDrop from Library), Symbol(s)
- Conference while drawing (4x4 or 1xn modus)
- Safe Drawings / whiteboard and load it next time, edit and resave
- ImportDocuments: .tga, .xcf, .wpg, .txt, .ico, .ttf, .pcd, .pcds, .ps, .psd, .tiff, .bmp, .svg, .dpx, .exr, .jpg, .jpeg, .gif, .jpg, .ppt, .odp, .odt, .sxw, .wpd, .doc, .rtf, .txt, .ods, .sxc, .xls, .sxi, .pdf

- Send invitation and direct Links into a meeting
- Moderating System
- User-/Organisation System
- Private and Public (Organisation only) Conference-Rooms

It works through a AJAX/Flash client that requires no client download in most situations.

## OpenWengo

<http://www.openwengo.com/>

A SIP-based multiplatform VoIP client, similar to Skype.



## SIPX

<http://www.sipfoundry.org/>

A complete SIP-based VoIP PBX system. It features:

- Transfer (consultative & blind)
- Call coverage
- Call hold / retrieve
- Consultation hold
- Music on Hold for IETF standards compliant phones
- Uploadable music file
- 3-way conference
- Call pickup (global and directed call pickup)
- Call park & retrieve
- Hunt groups
- SIP URI dialing
- CLID (Calling Line Identification)
- CNIP (Calling party Name Identification Presentation)
- CLIP (Call Line Identification Presentation)
- CLIR (Call Line Identification Restriction)
- Per gateway CLIP manipulation
- Call waiting / retrieve
- Do not Disturb (DnD)
- Forward on busy, no answer, do not disturb
- Multiple line appearances
- Multiple calls per line
- Multiple station appearance
- Outbound call blocking
- Click-to-dial (Windows XP)
- Redial
- Call history (dialed, received, missed)
- Auto off-hook / ring down
- Incoming only
- Peer-to-peer media routing for best quality (media not routed through the sipX server)

- Unmatched voice quality with lowest delay and jitter
- Support for any codec supported by the phone (including video)
- Support for Polycom HD Voice
- Codec negotiation (no transcoding required)
- Numeric or alpha-numeric User ID
- User PIN management (UI or TUI)
- Aliasing facility (numeric and alpha-numeric aliases)
- Extension and alias uniqueness assurance
- Granular per user permissions
- Call permissions
- Dial plans
- directory services
- softkeys
- speed dial
- PSTN trunking
- least-cost routing
- SIP trunking
- analog lines support
- unlimited number of simultaneous calls
- fully redundant
- Call Detail Records collection and reporting
- Plug & Play Device Management
- voicemail
- presence features
- hunt groups
- call center server

## DimDim

<http://www.dimdim.com>

DimDim is a web-based conferencing solution. Among the features:

- Presentation and Document sharing: Interactive realtime collaboration over documents and presentations allows enhanced expression and exchange of ideas.
- Audio and video sharing: High-quality multi-party video and audio sharing can be used to personalize meetings with a face-to-face approach.
- Application sharing: Full screen as well as specific application sharing from a Presenter's computer can be used to show and educate even a novice audience.
- White board and Annotations: Realistic interactive collaboration which involves a lot of annotations, corrections, group drawing (and doodles in the margin) is enabled through digital whiteboard and annotations feature of Dimdim.
- Chat: As in any real world meeting there will be sub-groups of people engaged in conversation and exchange of ideas (some serious ones others more like "kicks under the table") within the larger assembly in a web conference. This is facilitated through the multi-user chat feature.
- Polls: Polls enable the presenter to gauge the mood of the participants and to take decisions considering the opinions of many.
- Question manager: Question manager which is like a moderated Q&A setup enables the presenter to better manage the interaction.
- Record and Archive: All the interaction is recorded and archived for sharing with non-attendees and to reach a broader audience.



# Graphics and CAD

## **Blender**

**<http://www.blender.org/>**

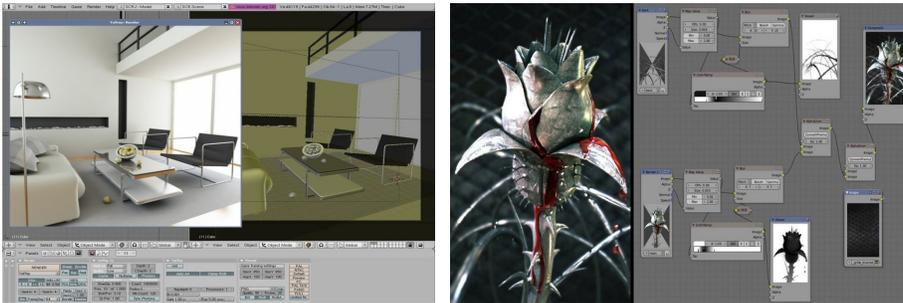
Blender is the free open source 3D content creation suite, available for all major operating systems under the GNU General Public License. It provides a complete system for 3D, video production, compositing and rendering. Among the features:

- Windows for animation curves/keys, outliner, schematic scene diagram, generic node editing system, non-linear video sequence editing, character animation action editor, non-linear animation mixer, image/UV editing, file/image selection and file management; Built-in text editor for annotations and editing Python scripts, Graphical user interface for Python scripts, Custom themes, Consistent interface across all platforms
- Rigging: Fast skeleton creation mode, Interactive 3D paint for vertex weighting, Fast envelope based skinning, Mirror editing (bone creation and weight painting), Constraint stack for IK solver setup and other constraints
- Animation: Armature (skeleton) deformation with forward/inverse kinematics, Auto IK allows posing FK chains easily, Non-linear animation editor for mixing individual actions created in Action editor, Automated walkcycles along paths, Animated constraint system, Vertex key framing for morphing, with controlling sliders, Edit and create new blendshapes from existing targets, Character animation pose editor, Animated deformers (Lattice, Curve), 'Ipo' system integrates both motion curve and traditional key-frame editing, Audio playback, mixing and editing support for sound synchronisation, Timeline offers fast access to many playback functions, autokey, help markers
- UV Unwrapping: Conformal and Angle Based unwrapping methods, Interactive transform of UV maps by vertex pinning, Proportional falloff editing of UV maps for smooth transformations, Seam based unwrapping, Cube, Cylinder, Sphere, View projections
- Physics and particles: Particle system can be attached to any mesh object. Control methods include weight painting, textures, curve guides, wind and vortex effects. Particles can be deflected by moving geometry, Hair strands can be created by a static particle system, supporting all particle control methods, Fluid simulator with fully animated inflow, outflow, obstacle and fluid objects. Gravity and viscosity settings can also be animated. Supports vector blur and is integrated with the particle system, Realtime soft body solver integrated in mesh, lattice, curve and text objects. Supports collision detection and particle field

effects like Wind or Vortex, soft bodys can also be baked for faster playback/rendering

- Modeling: A range of 3D object types including polygon meshes, NURBS surfaces, bezier and B-spline curves, metaballs, vector fonts (TrueType, PostScript, OpenType), Very fast Catmull-Clark subdivision surfaces with optimal iso-lines display and sharpness editing, Full multiresolution sculpting capabilities with 2D bitmap/3D procedural brushes (Paint, Smooth, Pinch, Inflate, Grab) supporting symmetry, Modifier stack deformers such as Lattice, Curve, Armature or Displace, Mirror modifier with middle vertices clipping and automatic deletion of inner faces, Non destructive real time Boolean and Array modifiers, Mesh modeling based on vertex, edge and/or face selection, Smooth soft selection editing tools for organic modeling
- Rendering: Render layers and passes, Render baking to UV maps (full render, ambient occlusion, normals, textures), Render engine tightly integrated with the node compositor, Halo, lens flares and fog effects, Vector motion-blur post-process effect (using node compositor), Realistic defocus (DOF), post-process effect (using node compositor), Edge rendering for toon shading, Interactive preview rendering panel in any 3d view, Ambient Occlusion, Radiosity solver, Integral support for the Yafray render engine, Export scripts available for external renderers such as Renderman (RIB), Mental Ray, Povray, Virtualight, Indigo
- Shading: Node editor for creating and mixing complex materials, Material previews rendered by main render engine, Fast, realistic subsurface scattering, Tangent shading to give any shader an anisotropic effect, Versatile procedural textures system, Reflection maps, Normal, displacement and bump maps
- Compositing: Compositor tightly integrated and aligned with the rendering pipeline, MultiLayer OpenEXR files allow to store and reuse raw renderlayer and passes data, Complete list of composite node filters, converters, color and vector operators and mixers including Chroma Key, Blur, RGB Curves, Z Combine, Color Ramp, Preview panel to define the portion of interest. A composite then only happens on this part, Threaded and memory efficient (up to 8 processors), Near realtime sequencer can edit hours of video, Waveform and U/V scatter plots, Open and write many audio & video file formats using ffmpeg (linux only at the moment, FFMPEG for Windows/OS X is scheduled for next release), Can render using frameserver-support directly into foreign applications, Supports float images as well as regular 32 bits images, Curves tool allows you to create a mapping from the float range to a displayable result (for HDR images)

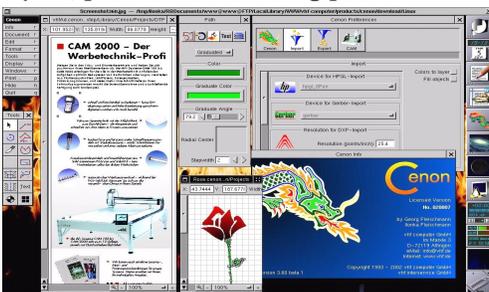
Customizations and extensions are available for use in architecture and building rendering at [http://blender-archi.tuxfamily.org/Main\\_Page](http://blender-archi.tuxfamily.org/Main_Page)



## Cenon

<http://www.cenon.info/>

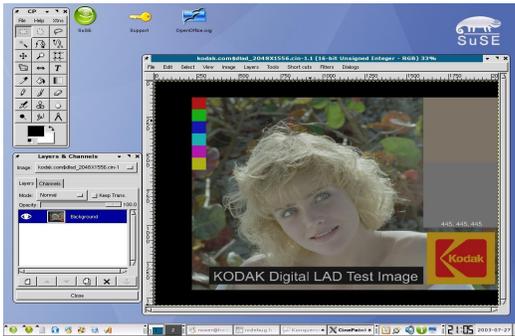
A vector graphics editor, with specialized import filters for many vector formats. It can be used for desktop publishing, vector graphics conversion, and through commercial modules it performs the role of a CAM workstation. It supports vector editing, blending, color separation, PDF and PostScript direct editing, importing of 2D DXF, Gerber files, HPGL, DIN and derivatives like Sieb&Meyer, Wessel and Excellon. It supports vectorization, layers, paths and text along paths.



## CinePaint

<http://www.cinepaint.org/>

CinePaint is a collection of free open source software tools for deep paint manipulation and image processing. CinePaint is used for motion picture frame-by-frame retouching, dirt removal, wire rig removal, render repair, background plates, and 3d model textures. It's been used on many feature films, among them "League of Extraordinary Gentlemen", "Harry Potter", "The Last Samurai", "SpiderMan". It's also being used by pro photographers who need greater color fidelity than is available in other tools. CinePaint is fundamentally different from other painting tools because it handles high fidelity image formats such as Kodak Cineon, SMPTE DPX, and ILM-NVIDIA OpenEXR. CinePaint has vast dynamic range: 16-bits per channel (64-bit RGBA). That's more range than can be displayed on a computer monitor (24-bit RGB), but can make a visible difference when working with film. Film scanners have more range than monitors, and can capture a superior image from film. Even with images that started in 8-bit, conversion to 16-bit can preserve color information that can otherwise be lost during the editing process. Such loss of fidelity can be visible as banding when an image is eventually printed back to film or blown up to higher magnification for a still print. The extended dynamic range of CinePaint appeals not just to 35mm cinematographers, but to 35mm still photographers as well. Still photographers can think of CinePaint as having many more F-stops of range, of being capable of capturing much more subtle nuances of color in a vast blue sky for instance. CinePaint handles 8-bit, 16-bit linear, and 16-bit float images.



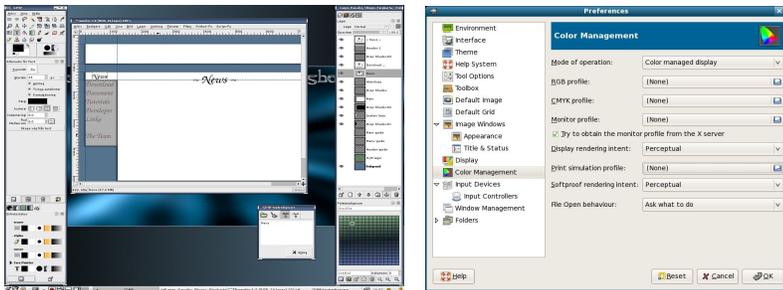
## GIMP

<http://www.gimp.org/>

GIMP is the GNU Image Manipulation Program. It is a freely distributed piece of software for such tasks as photo retouching, image composition and image authoring. It works on many operating systems, in many languages. It is a raster editor, which means that it performs operations directly on the pixels that make up the image, and not a vector editor. Other (proprietary) raster editors include Adobe Photoshop or Jasc Paintshop Pro. Among the features:

- **Painting:** Full suite of painting tools including Brush, Pencil, Airbrush, Clone, etc.; Sub-pixel sampling for all paint tools for high quality anti-aliasing, Extremely powerful gradient editor and blend tool, Supports custom brushes and patterns
- **System:** Tile based memory management so image size is limited only by available disk space, Virtually unlimited number of images open at one time
- **Advanced Manipulation:** Full alpha channel support, Layers and channels, Multiple Undo/Redo (limited only by disk space), Editable text layers, Transformation tools including rotate, scale, shear and flip, Selection tools including rectangle, ellipse, free, fuzzy and intelligent, Advanced path tool doing bezier and polygonal selections, Transformable paths, transformable selections, Quickmask to paint a selection.
- Over 100 plug-ins already available

It supports most Windows native Adobe Photoshop plugins in the Linux environment through an extension called PSPi (available at <http://www.gimp.org/~tml/gimp/win32/pspi.html>).

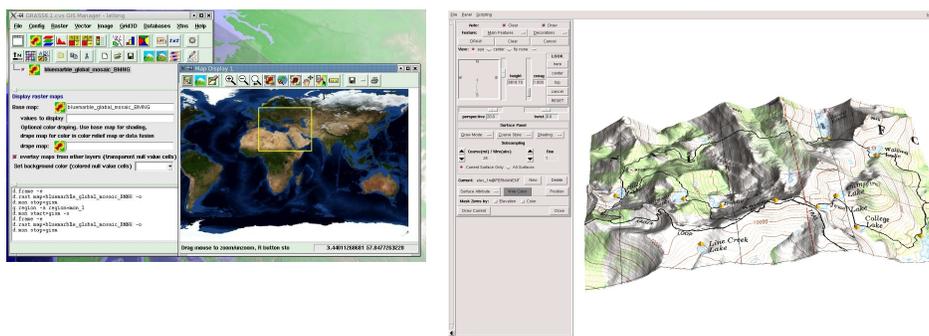


## GRASS GIS

<http://grass.itc.it/>

GRASS (Geographic Resources Analysis Support System) is a raster/vector GIS, image processing system, and graphics production system. GRASS contains over 350 programs and tools to render maps and images on monitor and paper; manipulate raster, vector, and sites data; process multi spectral image data; and create, manage, and store spatial data. GRASS uses both an intuitive windows interface as well as command line syntax for ease of operations. GRASS can interface with commercial printers, plotters, digitizers, and databases to develop new data as well as manage existing data. Among the features:

- Raster: Automatic rasterline and area to vector conversion, Buffering of line structures, Cell and profile dataquery, Colortable modifications, Conversion to vector and point data format, Correlation / covariance analysis, Expert system analysis, Map algebra (map calculator), Interpolation for missing values, Neighbourhood matrix analysis, Raster overlay with or without weight, Reclassification of cell labels, Resampling (resolution), Rescaling of cell values, Statistical cell analysis, Surface generation from vector lines
- 3D (voxel): 3D data import (intuitive ASCII: x y z Format), 3D masks, 3D map algebra (r3.mapcalc), 3D interpolation (IDW, Regularised Splines with Tension), 3D Visualization (isosurfaces), Interface to Vis5D visualization tool
- Vector analysis: Contour generation from raster surfaces (IDW, Spline algorithm), Conversion to raster and point data format, Digitizing with board or on screen (scanned raster image) with mouse, Reclassification of vector labels, Superpositioning of vector layers
- Point data analysis: Delaunay triangulation, Surface interpolation from spot heights, Thiessen polygons, Topographic analysis (curvature, slope, aspect)
- Image processing: Canonical component analysis (CCA), Color composite generation, Edge detection, Frequency filtering (Fourier, convolution matrices), Fourier and inverse fourier transformation, Histogram stretching, IHS transformation to RGB, Image rectification (affine and polynomial transformations on raster and vector targets), Ortho photo rectification, Principal component analysis (PCA), Radiometric corrections (Fourier), Resampling, Resolution enhancement (with RGB/IHS), RGB to IHS transformation, Texture oriented classification (sequential maximum a posteriori classification), Shape detection, Supervised classification (training areas, maximum likelihood classification), Unsupervised classification (minimum distance clustering, maximum likelihood classification)
- DTM-Analysis: Contour generation, Cost / path analysis, Slope / aspect analysis, Surface generation from spot heights or contours
- Several external modules, among them: Erosion modelling (AGNPS 5, ANSWERS, TOPMODEL), Landscape structure analysis, Solution transport, Watershed analysis
- Interfaces for the R statistical system



## Gscan2PDF

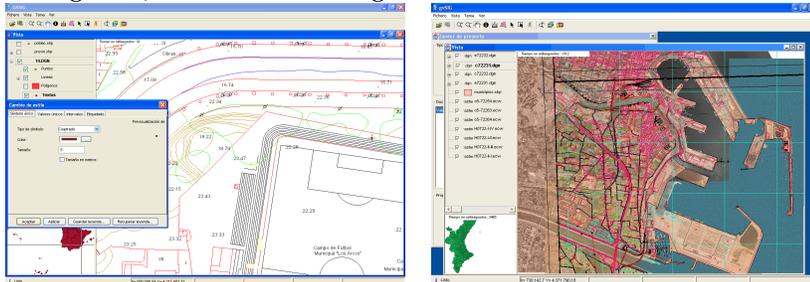
<http://gscan2pdf.sourceforge.net/>

A tool designed to simplify the scanning process of books or other compound material. It provides additional features by integrating a tool called "unpaper". Unpaper is a post-processing tool for scanned sheets of paper, especially for book pages that have been scanned from previously created photocopies. The main purpose is to make scanned book pages better readable on screen after conversion to PDF. Additionally, unpaper might be useful to enhance the quality of scanned pages before performing optical character recognition (OCR). unpaper tries to clean scanned images by removing dark edges that appeared through scanning or copying on areas outside the actual page content (e.g. dark areas between the left-hand-side and the right-hand-side of a double-sided book-page scan). The program also tries to detect disaligned centering and rotation of pages and will automatically straighten each page by rotating it to the correct angle. This process is called "deskewing".

## gvSIG

<http://www.gvsig.gva.es/index.php?id=que-es-gvsig&L=0explotan&L=2>

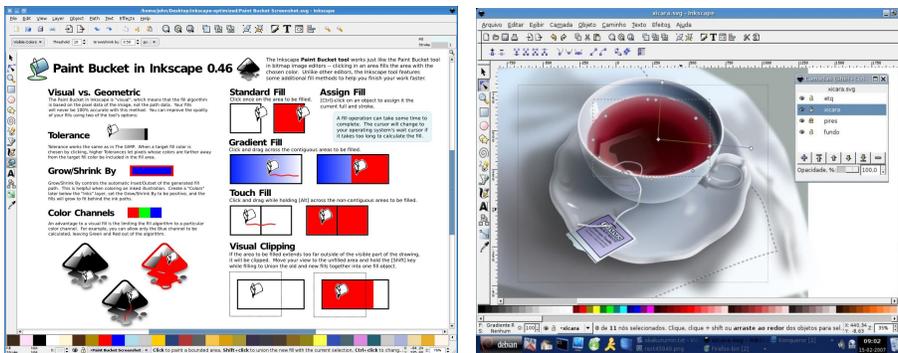
gvSIG is a tool oriented to manage geographic information. It is characterized by a user-friendly interface, with a quick access to the most usual raster and vector formats. In the same view it includes local as well as remote data through a WMS, WCS or WFS source. It is aimed at users of geographic information, whether professionals or civil servants (city councils, councils, regional councils or ministries) from any part of the world ( at the moment its interface is in Spanish, Valencian, English, Basque, Gallego, Czech, Chinese, French, German, Italian and Portuguese), in addition to being free. The SEXTANTE extensions adds additional functionalities.



## Inkscape

<http://www.inkscape.org/>

Inkscape is an Open Source vector graphics editor, with capabilities similar to Illustrator, CorelDraw, or Xara X, using the W3C standard Scalable Vector Graphics (SVG) file format. Inkscape supports many advanced SVG features (markers, clones, alpha blending, etc.) and great care is taken in designing a streamlined interface. It is very easy to edit nodes, perform complex path operations, trace bitmaps and much more.



## LuxRender

<http://www.luxrender2.org/>

LuxRender is a new, open-source, free software rendering system for physically correct, unbiased image synthesis. Rendering with LuxRender means simulating light according to physical equations, this produces realistic photographic quality images. It provides a FLTK based Graphical User Interface with interactive rendering controls, tonemapping controls and a progressive/linear viewport, realtime engine control with Adding & Removing of rendering threads and start/pause/restart controls; realistic sunsky (physically based Sunlight & Daylight model Preetham/Shirley/Smits as used in most modern unbiased renderers with support for Exit Portals, BRDFs, and integrated materials:

- matte (Lambertian or Oren-Nayar 'matte paint' diffuse reflection)
- plastic (Glossy Dielectric Diffuse/Specular using a Blinn Microfacet distribution)
- shynmetal (Glossy Conductor Diffuse/Specular using a Blinn Microfacet distribution)
- substrate (Glossy Fresnel Blended Diffuse substrate/Specular superstrate using an Iso/Anisotropic Ashikmin/Shirley Microfacet distribution)
- glass (Fresnel Dielectric with perfect specular reflection and transmission)
- translucent (Fresnel Dielectric with glossy specular reflection and transmission using a Blinn Microfacet distribution)
- mirror (Perfect specular reflection)
- uber (Flexible base material with control over all reflection/transmission BRDFs)
- bluepaint (measured)
- brushedmetal (measured)

- clay (measured)
- felt (measured)
- primer (measured)
- skin (measured)

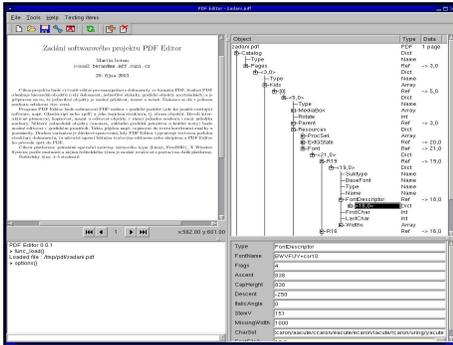
The engine supports image textures (including HDR), internal color handling in Spectra and CIE XYZ, OpenEXR, tonemapping kernels, additional pipeline stages and pixel reconstruction filters.



### PDFedit

[http://pdfedit.petricek.net/pdfedit.index\\_e](http://pdfedit.petricek.net/pdfedit.index_e)

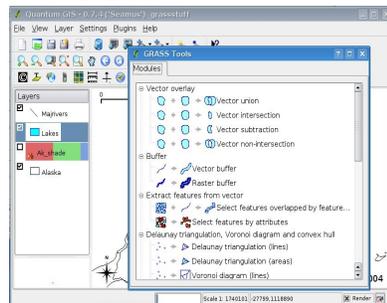
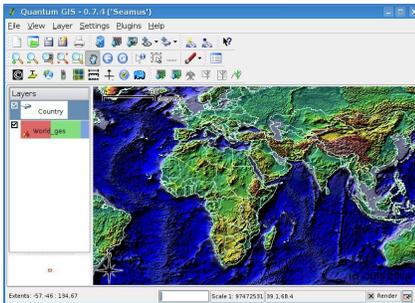
Free editor for PDF documents. Complete editing of PDF documents is possible with PDFedit. You can change raw pdf objects (for advanced users) or use many gui functions. Functionality can be easily extended using a scripting language (ECMAScript).



### QuantumGIS

<http://qgis.org/>

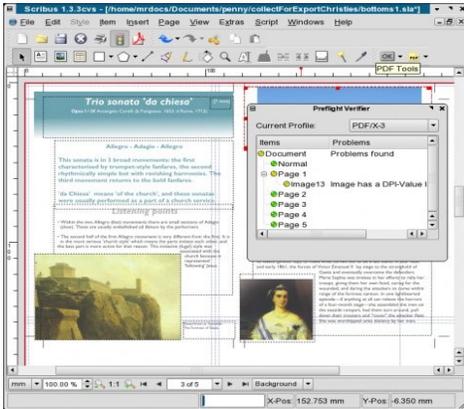
Quantum GIS (QGIS) is a user friendly Open Source Geographic Information System (GIS) that runs on Linux, Unix, Mac OSX, and Windows. QGIS supports vector, raster, and database formats. QGIS is licensed under the GNU General Public License. QGIS lets you browse and create map data on your computer. It supports many common spatial data formats (e.g. ESRI ShapeFile, geotiff). QGIS supports plugins to do things like display tracks from your GPS. It supports raster and vector types, integration with GRASS, digitizing tools, print composer, OGC support, spatial bookmarks, feature labeling, graticule builder, raster georeferencing.



## Scribus

<http://www.scribus.net/>

Scribus is an open-source program that brings award-winning professional page layout to Linux/Unix, MacOS X, OS/2 and Windows desktops with a combination of "press-ready" output and new approaches to page layout. Underneath the modern and user friendly interface, Scribus supports professional publishing features, such as CMYK color, separations, ICC color management and versatile PDF creation.

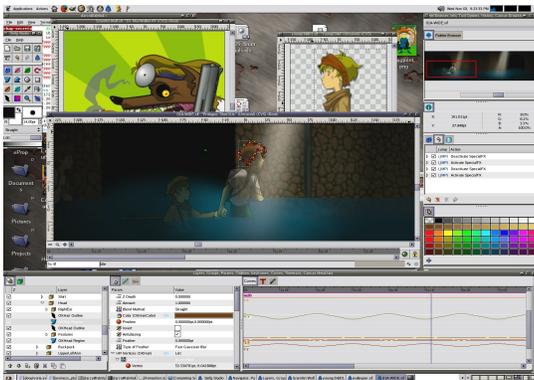


## SynFig

<http://www.synfig.com/>

Synfig is a powerful, industrial-strength vector-based 2D animation software package, designed from the ground-up for producing feature-film quality animation with fewer people and resources. Our animation technology eliminates the task of manual tweening, producing smooth, fluid motion without the animator having to draw out each frame individually. This allows you to produce 2D animation with fewer people while producing a product of a higher quality. Among the features:

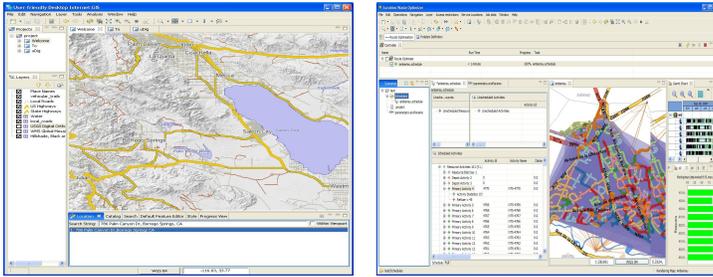
- Spatial Resolution-independence
- Temporal Resolution-independence
- High Dynamic Range Imaging.
- Layers: Region, Outline, Polygon, Circle Rectangle, Star, Checker board, Gradient Layers, Linear gradient, Radial gradient, Conical gradient, Curve gradient, Spiral gradient, Noise
- Filters: Bevel, Blur, Motion Blur, Clamp, Colorcorrect, Halftone, Luma key, Radial blur, Shade, Plant, Super sample, Text, Import, Timelooop
- Distortion: Inside-out, Noise distort, Rotate, Spherize, Stretch, Translate, Twirl, Warp, Zoom



## uDIG

<http://udig.refractions.net/confluence/display/UDIG/Home>

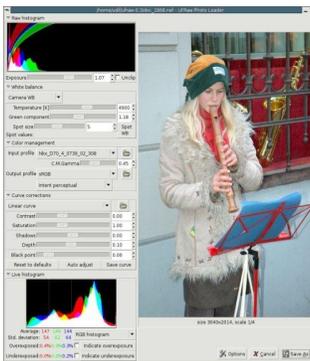
The User-friendly Desktop Internet GIS (uDig) is both a GeoSpatial application and a platform through which developers can create new, derived applications. uDig is a core element in an internet aware Geographic Information System, and provides an infrastructure for the creation of complete GIS environments. For example, the GRASS GIS system is integrated in uDIG through the JGrass module (Primarily dedicated to hydrological and geomorphological analyses).



## UFRaw

<http://ufraw.sourceforge.net/>

The Unidentified Flying Raw (UFRaw) is a utility to read and manipulate raw images from digital cameras. It can be used on its own or as a Gimp plug-in. It reads raw images using Dave Coffin's raw conversion utility - DCRaw. UFRaw supports color management workflow based on Little CMS, allowing the user to apply ICC color profiles. Color manipulation is performed at 16 bit per channel, preserving detail.



## YaFray

<http://www.yafray.org/>

YaFray is a powerful raytracer, under the LGPL license. It enables you to create fantastic images and animations of a photorealistic quality. It features full global illumination, skydomes, HDRI, caustics, real DOF, blurry reflections and a modular framework.

# Desktop

## Firefox

<http://www.mozilla.com/en-US/firefox/>

Firefox is the most widely used open source web browser, managed by the Mozilla Foundation. Features included with Firefox are tabbed browsing, spell checker, incremental find, an integrated download manager, and a search system that supports multiple search engines. A third party developer network has created add-ons which provide specialist functionality. There are thousands of add-ons, covering aspects like security, ad blocking, themes, enhanced functionality, scripting and debugging. Firefox is cross-platform, providing support for Microsoft Windows, Mac OS X and Linux.



## Gnome desktop environment

<http://www.gnome.org>

The GNOME project provides two things: The GNOME desktop environment, an intuitive and attractive desktop for users, and the GNOME development platform, an extensive framework for building applications that integrate into the rest of the desktop. GNOME is Free Software and part of the GNU project, dedicated to giving users and developers the ultimate level of control over their desktops, their software, and their data. GNOME understands that usability is about creating software that is easy for everyone to use, not about piling on features. GNOME's community of professional and volunteer usability experts have created Free Software's first and only Human

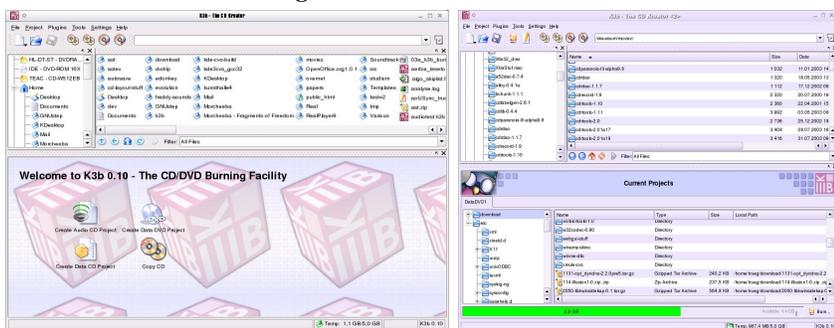
Interface Guidelines, and all core GNOME software is adopting these principles.



### K3B

<http://k3b.plainblack.com/>

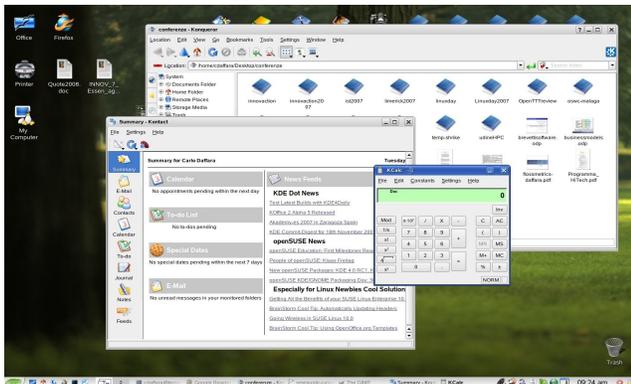
K3b was created to be a feature-rich and easy to handle CD burning application. It supports data and audio cd, DVD creation and burning.



### KDE desktop environment

<http://www.kde.org>

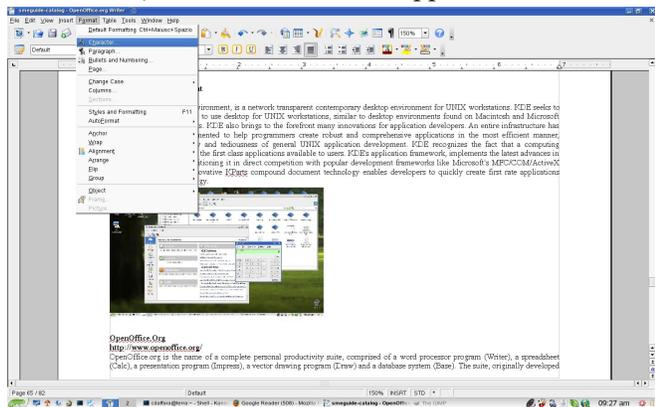
KDE or the K Desktop Environment, is a network transparent contemporary desktop environment for UNIX workstations. KDE seeks to fulfill the need for an easy to use desktop for UNIX workstations, similar to desktop environments found on Macintosh and Microsoft Windows operating systems. KDE also brings to the forefront many innovations for application developers. An entire infrastructure has been designed and implemented to help programmers create robust and comprehensive applications in the most efficient manner, eliminating the complexity and tediousness of general UNIX application development. KDE recognizes the fact that a computing platform is only as good as the first class applications available to users. KDE's application framework, implements the latest advances in framework technology positioning it in direct competition with popular development frameworks like Microsoft's MFC/COM/ActiveX technology etc. KDE's innovative KParts compound document technology enables developers to quickly create first rate applications using cutting edge technology.



## OpenOffice.Org

<http://www.openoffice.org/>

OpenOffice.org is the name of a complete personal productivity suite, comprised of a word processor program (Writer), a spreadsheet (Calc), a presentation program (Impress), a vector drawing program (Draw) and a database system (Base). The suite, originally developed by StarDivision, has been acquired by Sun Microsystems and released as an open source project in 2000. The suite supports most commonly used document formats, including substantial support for Microsoft Office formats (in various releases) and the beginning of support of Excel VBA macro language. The suite is roughly comparable in terms of functionality with the proprietary alternatives, and features native support of the ISO ODF document format.



## OpenSUSE

<http://www.opensuse.org/>

The openSUSE project is a community program sponsored by Novell; as part of this collaborative effort, OpenSUSE is a desktop linux distribution, aimed at novices and experts alike, with many significant features oriented towards interoperability with proprietary infrastructure and easy maintenance.

## Ubuntu Linux

<http://www.ubuntu.com/>

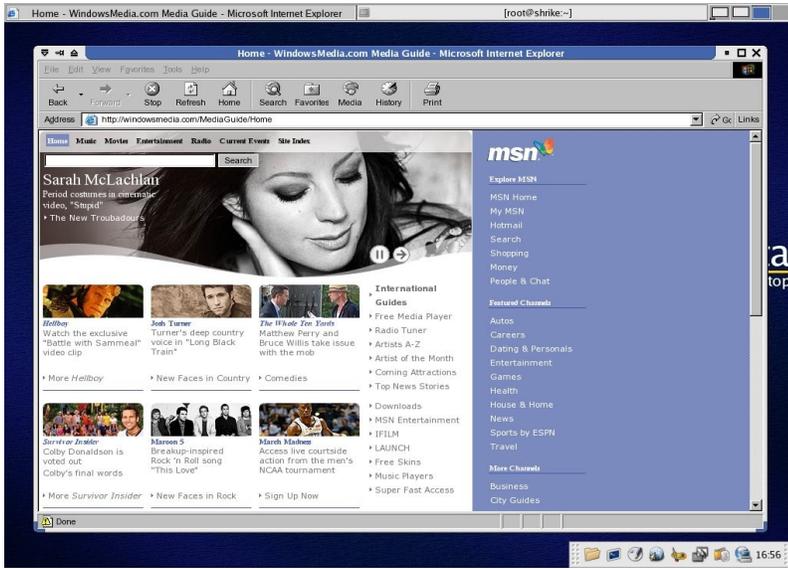
Ubuntu is a community developed, linux-based operating system that is perfect for laptops, desktops and servers. It contains all the applications you need – a web browser, presentation, document and spreadsheet software, instant messaging and much more. It features an extremely simple and integrated desktop environment, improved hardware support and plug&play functionality.



WINE

<http://www.winehq.org/>

Wine is an Open Source implementation of the Windows API on top of X, OpenGL, and Unix. Think of Wine as a compatibility layer for running Windows programs. Wine does not require Microsoft Windows, as it is a completely free alternative implementation of the Windows API consisting of 100% non-Microsoft code, however Wine can optionally use native Windows DLLs if they are available. Wine provides both a development toolkit for porting Windows source code to Unix as well as a program loader, allowing many unmodified Windows programs to run on x86-based Unixes, including Linux, FreeBSD, Mac OS X, and Solaris. It supports many native Windows applications, like Microsoft Office and DreamWeaver.



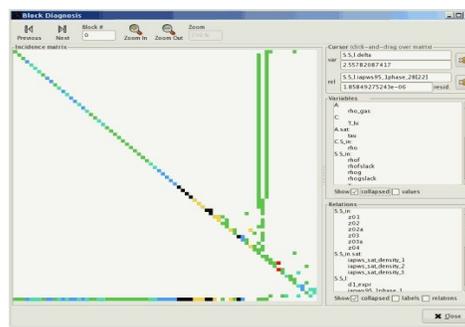
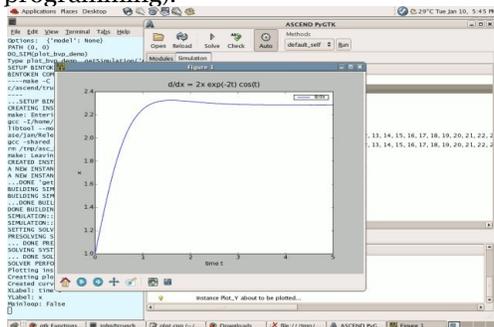
# Engineering and manufacturing

## ASCEND

<http://ascend.cheme.cmu.edu/>

ASCEND is a flexible modelling environment for solving hard engineering and science problems. It offers an object-oriented model description language for describing your system, an interactive user interface that allows you to solve your model and explore the effect of changing the model parameters, and a scripting environment that allows you to automate your more complex simulation problems. ASCEND was originally written at Carnegie Mellon University in the 1980s and includes powerful and reliable solver routines that analyse the structure of your model and can solve thousands of simultaneous nonlinear equations in a few seconds on everyday computer hardware. It is under active development and is licensed under the GNU General Public License ensuring that it is free software and will remain free.

The included solvers are LA (linear algebraic), NLA (non linear algebraic), ODE, DAE and NLP (non-linear programming).



## Axiom

<http://wiki.axiom-developer.org/FrontPage>

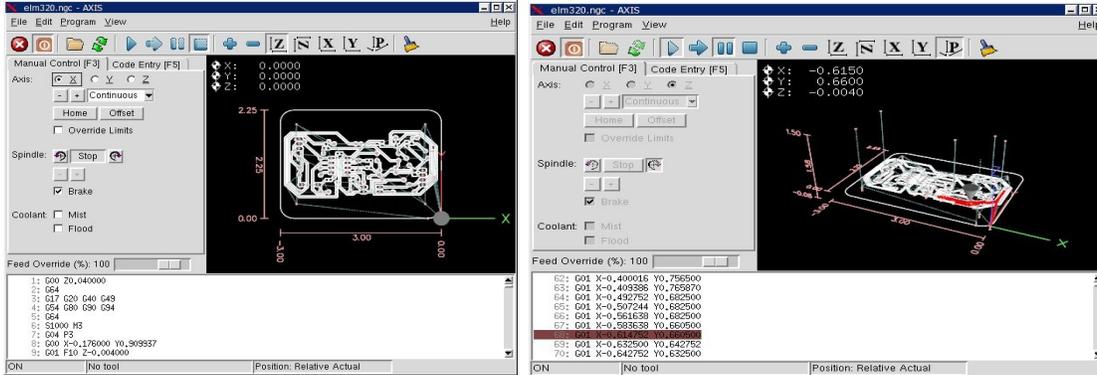
Axiom is a general purpose system for doing mathematics by computer. It is especially useful for symbolic calculations, mathematical research and for the development of new mathematical algorithms. Axiom has a strongly-typed high-level programming language for expressing abstract mathematical concepts. Over 1,000

mathematical domains and categories are collected in the Axiom Library.

## AXIS

<http://axis.unpythonic.net/index.cgi/about>

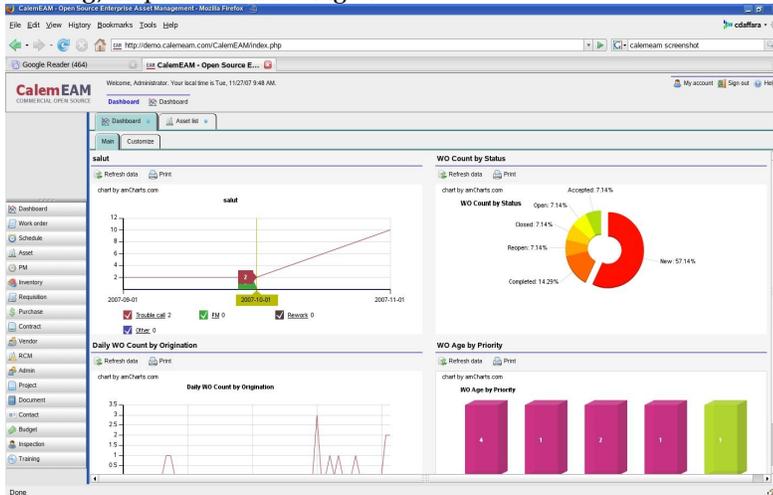
Axis is a graphical interface on the EMC2 CNC (Computerized Numerical Control) system. Axis provides interactive preview and backplot. It is implemented primarily in Python, with the user interface rendered by Tk and OpenGL. It is mostly keystroke-compatible with tkemc and mini, and runs well on machines without hardware OpenGL acceleration.



## CalemEAM

<http://www.calemam.com/>

A complete Enterprise Asset management and maintenance management system. It provides modules for work orders, assets, inventory, requisition and purchase, administration and scheduling, RCM, associate document and training, inspection and budget.



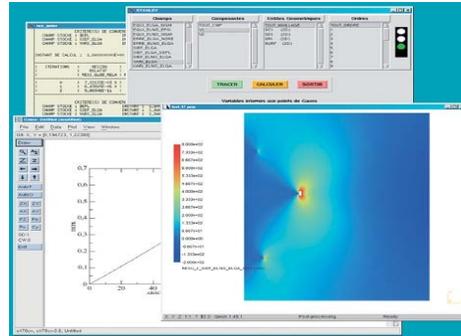
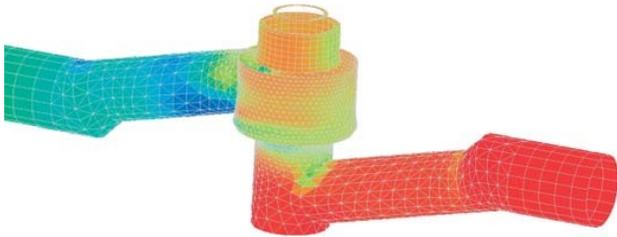
## CODE\*ASTER

<http://www.code-aster.org/>

Code\_Aster offers a full range of multiphysical analysis and modelling methods that go well beyond the standard functions of a thermomechanical calculation code : from seismic analysis to porous environments via acoustics, fatigue, stochastic dynamics, etc. Its modelling, algorithms and solvers are constantly undergoing work to improve them and add to them (1,200,000 lines of code, 200 operators). Resolutely open, it is chained, coupled and encapsulated in numerous ways. The domains:

- Mechanical: Static, quasi-static, linear or otherwise; Dynamic, linear or otherwise, on a physical or modal basis, Fracture, damage and fatigue, Soil-Structure, Fluid-Structure and Soil-Fluid-Structure interactions
- Thermal: Stationary, transient, linear or otherwise, Fixed or moving reference coordinate system
- Associated phenomena: Acoustics, Metallurgy, Hydration and drying
- Multiphysical: Internal chainings with thermics, Hydration, drying, Metallurgy
- Internal chainings with mechanics: Thermal, Metallurgy, Hydration and drying

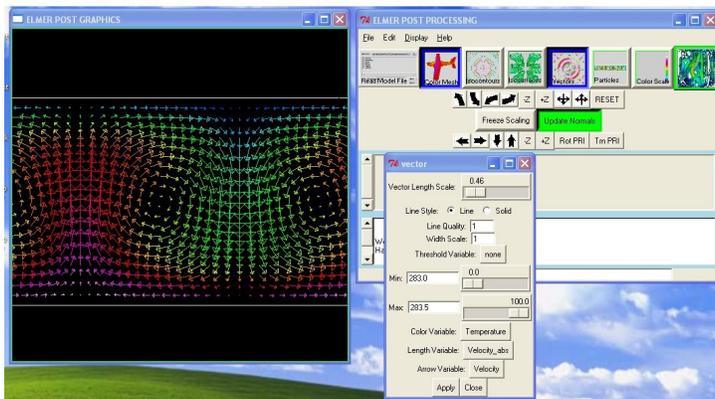
- Internal coupling: thermo-hydro mechanical, fluid-structure  
It is used internally by EDF, and is also available in a certified version.



## ELMER

<http://www.csc.fi/elmer>

Elmer is an open source multiphysical simulation software developed by CSC. Elmer development was started 1995 in collaboration with Finnish Universities, research institutes and industry. Elmer includes physical models of fluid dynamics, structural mechanics, electromagnetics, heat transfer and acoustics, for example. These are described by partial differential equations which Elmer solves by the Finite Element Method (FEM).



## EMC

<http://www.linuxcnc.org>

EMC (the Enhanced Machine Control) is a software system for computer control of machine tools such as milling machines and lathes. EMC is free software with open source code. Current versions of EMC are entirely licensed under the GNU General Public License, (GPL and LGPL,) and older versions of the software are available in the public domain. EMC provides:

- a graphical user interface (actually several interfaces to chose from)
- an interpreter for "G-code " (the RS-274 machine tool programming language)
- a realtime motion planning system with look-ahead
- operation of low-level machine electronics such as sensors and motor drives
- an easy to use "breadboard" layer for quickly creating a unique configuration for your machine
- a software PLC programmable with ladder diagrams
- It can simultaneously move up to 6 axes and supports a variety of interfaces.
- The control can operate true servos (analog or PWM) with the feedback loop closed by the EMC software at the computer, or open loop with "step-servos" or stepper motors.
- Motion control features include: cutter radius and length compensation, path deviation limited to a specified tolerance, lathe threading, synchronized axis motion, adaptive feedrate, operator feed override, and constant velocity control.

- Support for non-Cartesian motion systems is provided via custom kinematics modules. Available architectures include hexapods (Stewart platforms and similar concepts) and systems with rotary joints to provide motion such as PUMA or SCARA robots.
- EMC runs on Linux using real time extensions. Support currently exists for version 2.4 and 2.6 Linux kernels with real time extensions applied by RT-Linux or RTAI patches.

## **KRATOS**

**<http://www.cimne.com/kratos/>**

Kratos is a Methodology and Computing Structure to Built Finite Element Programs: an open source framework with object-oriented structure intended to provide the tools for finite element programmers in different fields and connect them in term of solving coupled multi-physics problems. Kratos is a environment to work at Different Implementation Levels. It consist in a set of classes and methods for programmers to provide the ability to handle multiphysic, adaptive meshing and optimisation problems. Kratos should help to built a numerical application in C++ from the easiest formulation (conduction problem) to the most complex ones (optimisation techniques). The approach can be from the user-developer point of view, considering their contribution as requirements of the Kratos system as well as plug in extensions, but also from the user-application interests, using the already existing finite element programs as calculation engine. ratos is MULTI-PHYSIC. One of the main topics in engineering nowadays is the combination of different analysis (thermal, fluid dynamic, structural) with optimising methods in one global software package with just one user interface and, even more, the possibility to extend the implemented solution to new problems. Kratos is FINITE ELEMENT METHOD (FEM) based. Many problems in engineering and applied science are governed by Partial Differential Equations (PDE), easily handled by computer thanks to numerical methods. The FEM is one of the most powerful, flexible and versatile existing methods.

## **Maxima**

**<http://maxima.sourceforge.net/>**

Maxima is a system for the manipulation of symbolic and numerical expressions, including differentiation, integration, Taylor series, Laplace transforms, ordinary differential equations, systems of linear equations, and vectors, matrices, and tensors. Maxima produces high precision results by using exact fractions and arbitrarily long floating point representations, and can plot functions and data in two and three dimensions. Maxima is a descendant of Macsyma, the legendary computer algebra system developed in the late 1960s at the Massachusetts Institute of Technology. It is the only system based on that effort still publicly available and with an active user community, thanks to its open source nature. Macsyma was revolutionary in its day, and many later systems, such as Maple and Mathematica, were inspired by it.

## **OpenCascade**

**<http://www.opencascade.org/>**

Open CASCADE Technology is software development platform freely available in open source. It includes components for 3D surface and solid modeling, visualization, data exchange and rapid application development. Open CASCADE Technology can be best applied in development of numerical simulation software including CAD/CAM/CAE, AEC and GIS, as well as PDM applications. It is composed of several modules:

- Foundation classes
- Modeling data
- Modeling algorithms
- Mesh
- Visualization
- Data Exchange (standardized)
- Application framework (OCAF)
- GUI framework
- Development tools

It provides read/write support for 3D data as IGES format (5.3) and STEP format (AP203, AP214 and AP209) , for 3D geometry and topology, Colors and Names, Assembly structures, Layers, Validation Properties. OpenCascade has shape healing, complex 3D kernel functionalities,

## **OpenFoam**

**<http://www.open CFD.co.uk/openfoam/>**

The OpenFOAM (Open Field Operation and Manipulation) CFD Toolbox can simulate anything from complex fluid flows involving chemical reactions, turbulence and heat transfer, to solid dynamics, electromagnetics and the pricing of financial options. OpenFOAM is produced by OpenCFD Ltd, is freely available and open source, licensed under the GNU General Public Licence. The core technology of OpenFOAM is a flexible set of efficient C+

+ modules. These are used to build a wealth of: solvers, to simulate specific problems in engineering mechanics; utilities, to perform pre- and post-processing tasks ranging from simple data manipulations to visualisation and mesh processing; libraries, to create toolboxes that are accessible to the solvers/utilities, such as libraries of physical models. OpenFOAM is supplied with numerous pre-configured solvers, utilities and libraries and so can be used like any typical simulation package. However, it is open, not only in terms of source code, but also in its structure and hierarchical design, so that its solvers, utilities and libraries are fully extensible. OpenFOAM uses finite volume numerics to solve systems of partial differential equations ascribed on any 3D unstructured mesh of polyhedral cells. The fluid flow solvers are developed within a robust, implicit, pressure-velocity, iterative solution framework, although alternative techniques are applied to other continuum mechanics solvers. Domain decomposition parallelism is fundamental to the design of OpenFOAM and integrated at a low level so that solvers can generally be developed without the need for any 'parallel-specific' coding. Among the standard solvers:

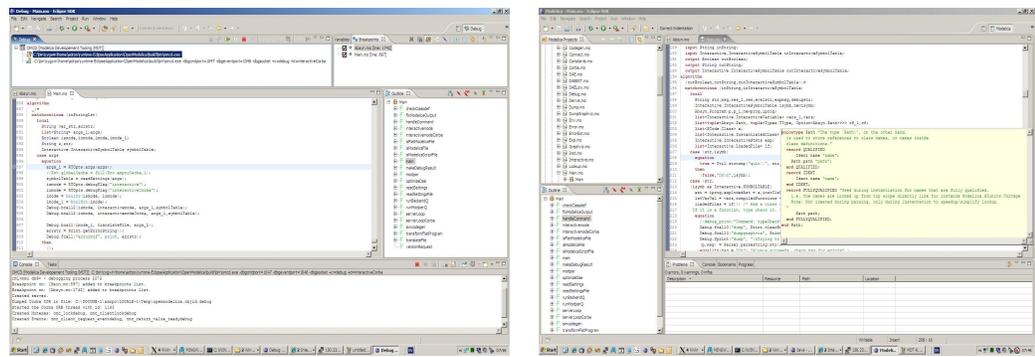
- 'Basic' CFD
- Incompressible flows
- Compressible flows
- Multiphase flows
- DNS and LES
- Combustion
- Heat transfer
- Electromagnetics
- Solid dynamics
- Finance

Additional models are available for Turbulence, Large-eddy simulation (LES), Transport models, Thermophysical models, Lagrangian particle tracking, Chemical kinetics. It is a product used in production environments like Audi, Airbus, Bayer, Danone, Daimler, Delphi, Honda, Mitsubishi, Obayashi, SKF, Shell, Toyota, Tokyo Gas, Volkswagen; and many academic institutions like Imperial College London, King's College London, Chalmers University, University of Exeter, University of Strathclyde, Utah State University, University of Guelph, Tohoku University, Hirosaki University, Tokyo Institute of Technology.

### OpenModelica

<http://www.ida.liu.se/~pelab/modelica/OpenModelica.html>

The goal of the project is to create a complete Modelica modeling, compilation and simulation environment; Modelica is a language for modeling and simulation of physical processes. Modelica is an object-oriented, domain-specific modeling language designed to allow convenient, component-oriented modeling of complex systems, e.g., systems containing mechanical, electrical, electronic, hydraulic, thermal, control, electric power or process-oriented subcomponents. The project provides a Modelica compiler, runner and a development environment extension for the Eclipse IDE.



### myCMMS2

<http://www.mycmms.org/>

myCMMS is a Web-Based Computerized Maintenance Management System. myCMMS is intended to be used by smaller maintenance organization that cannot invest in a bigger commercial package and that need a low learning curve. It is entirely web-based, meaning that no software needs to be loaded on your computer. The myCMMS Base System contains the following functionality:

- Workorders : creating, editing, planning, feedback ...

- WebCalendar has moved to the Options
- Tasks : repetitive jobs
- Spare parts : managing of a spare part warehouse
- Purchasing : managing the purchase of external parts or services

The available extensions are fault follow-up (in development), RCM, criticality and webcalendar.

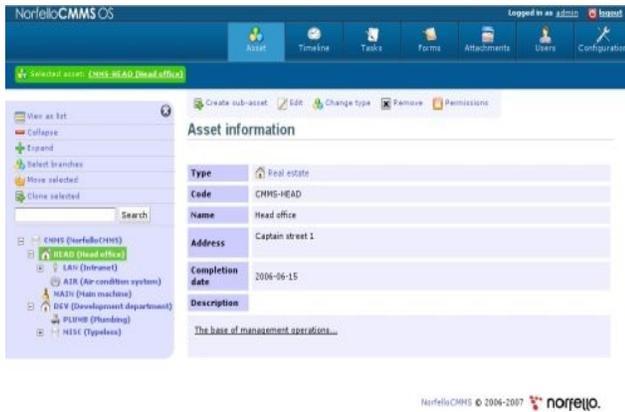
Task	Equip	Description	Type	Next	Freq	Instructions
Oil Lubrication CHECK DO	STE-M40	Lubrication control task	PM	2008-01-05 00:00:00	8	14
Oil Lubrication CHECK DO	STE-M40	Lubrication control task	PM	2008-01-05 00:00:00	8	14
Backup PLC CHECK DO	STE-M40-PLD	Backup PLC	PM	2008-12-31 00:00:00	8	365
			PROJECT	2008-01-31 00:00:00	8	20
			PROJECT	2008-01-02 00:00:00	8	1
			PROJECT	2008-01-02 00:00:00	8	1
	Baking Machine		PROJECT	2008-03-31 00:00:00	8	90
	BM2041		PROJECT	2008-01-11 00:00:00	8	10

## Norfello

<http://www1.norfello.com/>

NorfelloCMMS is a powerful CMMS application. It enables organizations to easily manage labor, equipment and service requests via web based interface. NorfelloCMMS OS is targeted to any organization that handles maintenance tasks or has equipment to track. From heavy industry maintenance management to managing computer network equipment, NorfelloCMMS can be customized to meet the requirements of various different domains. It features:

- Access control: NorfelloCMMS enables administrators to manage the users right from it's web based interface. Every action and every piece of information can be denied for some users or group of users. Access control in NorfelloCMMS is based on keys and keyrings. For each function in NorfelloCMMS there is a key associated to it. Keyrings are collections of keys, which can be handed to users. A user has all keys, which belong to keyrings the user owns. NorfelloCMMS's access control policy is restrictive by default. This means that access to a function is denied unless user has the key associated to the function. Asset permissions provide access control for asset data saved in the NorfelloCMMS database. Asset permissions define which assets users can view and edit, and what kind of data users can create to assets.
- Reports: NorfelloCMMS offers a possibility for the end users to customize collected information by themselves. Creating report templates is really easy, just use Openoffice.org to make the report look like you want it to look, add couple of variables and you are ready to use it in the software. NorfelloCMMS reads variables from ODT-files and creates database tables for collected information. This means that all of the content is separated from presentation. Therefore it is possible to search information easily and to present it in various formats.
- Assets: Almost everything in NorfelloCMMS is associated to an asset. Assets are concrete things - for example in IT system administration - servers, switches and UPSes. In some other domain like facility maintenance assets can be things air conditioning units, elevators and so on. The common denominator is that maintenance tasks and information are associated to assets. This information however differs a lot depending on which domain we are operating in. Therefore all of the information can be customized.
- Work orders: Work order is like a piece of paper with a task on it. Only one can user have the same task at time. If many people are working on the same task one of them is the owner and the rest are workers. As a piece of paper also the work order can be handed over from one user to another. Every time the status of a work order changes, it can be seen on the work order view. When the task is completed the work order closes. It will be archived in the system but it's not active anymore.



## Octave

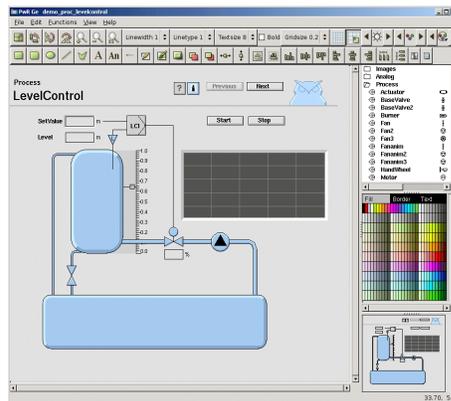
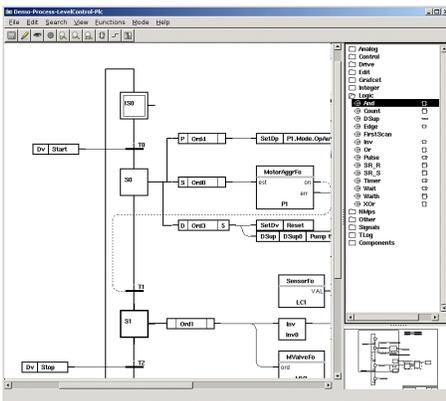
<http://www.gnu.org/software/octave/>

GNU Octave is a high-level language, primarily intended for numerical computations. It provides a convenient command line interface for solving linear and nonlinear problems numerically, and for performing other numerical experiments using a language that is mostly compatible with Matlab. It may also be used as a batch-oriented language. Octave has extensive tools for solving common numerical linear algebra problems, finding the roots of nonlinear equations, integrating ordinary functions, manipulating polynomials, and integrating ordinary differential and differential-algebraic equations. It is easily extensible and customizable via user-defined functions written in Octave's own language, or using dynamically loaded modules written in C++, C, Fortran, or other languages.

## ProView

<http://www.proview.se/>

Proview is probably the first Open Source system for process control in the world. Originally developed in Sweden by Mandator and SSAB Oxelosund as a process control system based on standard computers, the system has become a fully-fledged, integrated and low-cost solution that is running on standard PC's with Linux as operating system. PROVIEW/R is a modern, powerful and general process control system. It contains all functions normally required for successful sequential control, adjustment, data acquisition, communication, supervision, etc. The configuration of a PROVIEW/R system is done graphically, making the application adaptation simple, reliable, and flexible. PROVIEW/R is a distributed system, which means that the system consists of several computers, connected via a network. Via the network computers exchange data with each other. In this way, for instance, the measuring signals will be known on all the process - and operator stations of a PROVIEW/R system. Programming is possible both with a graphical PLC-editor and with high level programming languages (such as C, Java or FORTRAN). The concept of Proview is based on a soft-PLC solution which runs on standard computers with Linux as operating system.



## Ptolemy

<http://ptolemy.eecs.berkeley.edu/ptolemyII/index.htm>

Ptolemy II is a software framework developed as part of the Ptolemy Project. It is a Java-based component

assembly framework with a graphical user interface called Vergil. Vergil itself is a component assembly defined in Ptolemy II. The Ptolemy project studies modeling, simulation, and design of concurrent, real-time, embedded systems. The focus is on assembly of concurrent components. The key underlying principle in the project is the use of well-defined models of computation that govern the interactions between components. A major problem area being addressed is the use of heterogeneous mixtures of models of computation.

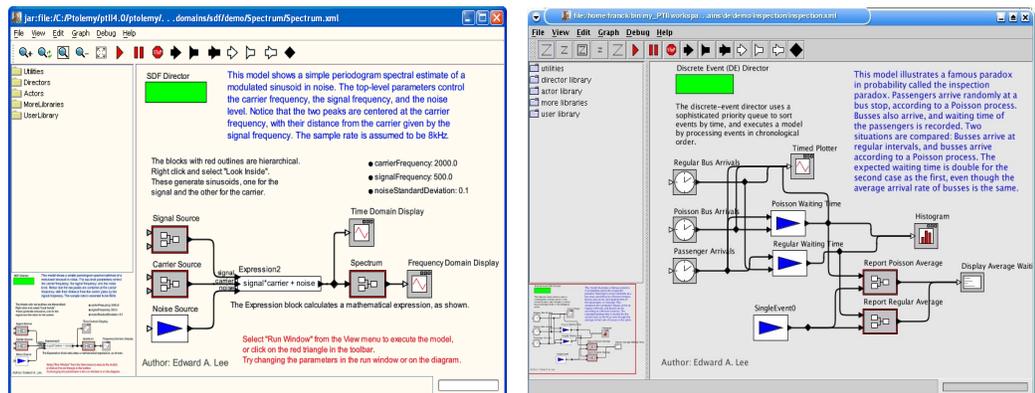
Ptolemy II includes a growing suite of domains, each of which realizes a model of computation. It also includes a component library, in which most components are domain polymorphic, in that they can operate in several of the domains. Most are also data polymorphic, in that they operate on several data types. The domains that have been implemented are listed below. Domains that are reasonably mature:

- CT: continuous-time modeling
- DDF: dynamic dataflow
- DE: discrete-event modeling
- FSM: finite state machines and modal model
- PN: process networks with asynchronous message passing
- Rendezvous: process networks with synchronous message passing
- SDF: synchronous dataflow
- SR: synchronous reactive
- Wireless: wireless

Domains that are still experimental:

- CI: component interaction (push/pull)
- CSP: communicating sequential processes
- DDE: distributed discrete events
- DT: discrete time
- Giotto: periodic time-driven
- GR: 3-D graphics
- HDF: heterochronous dataflow
- PSDF: parameterized synchronous dataflow
- TM: timed multitasking

Ptolemy II includes a number of support packages, such as graph, providing graph-theoretic manipulations, math, providing matrix and vector math and signal processing functions, plot, providing visual display of data, data, providing a type system, data encapsulation and an expression parser, etc.

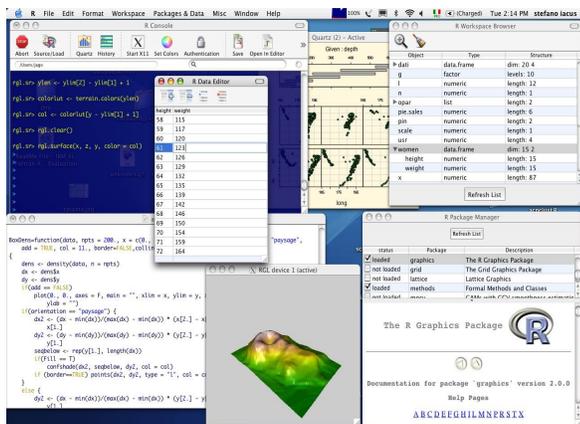


## R project

<http://www.r-project.org/>

R is a language and environment for statistical computing and graphics. It is a GNU project which is similar to the S language and environment which was developed at Bell Laboratories (formerly AT&T, now Lucent Technologies) by John Chambers and colleagues. R can be considered as a different implementation of S. There are some important differences, but much code written for S runs unaltered under R. R provides a wide variety of statistical (linear and nonlinear modelling, classical statistical tests, time-series analysis, classification, clustering, ...) and graphical techniques, and is highly extensible. The S language is often the vehicle of choice for research in statistical methodology, and R provides an Open Source route to participation in that activity. One of

R's strengths is the ease with which well-designed publication-quality plots can be produced, including mathematical symbols and formulae where needed. Great care has been taken over the defaults for the minor design choices in graphics, but the user retains full control. R is available as Free Software under the terms of the Free Software Foundation's GNU General Public License in source code form. It compiles and runs on a wide variety of UNIX platforms and similar systems (including FreeBSD and Linux), Windows and MacOS. Several graphical interfaces are available to simplify the user interaction, like Rkward (<http://rkward.sourceforge.net>)



## Salome

<http://www.salome-platform.org>

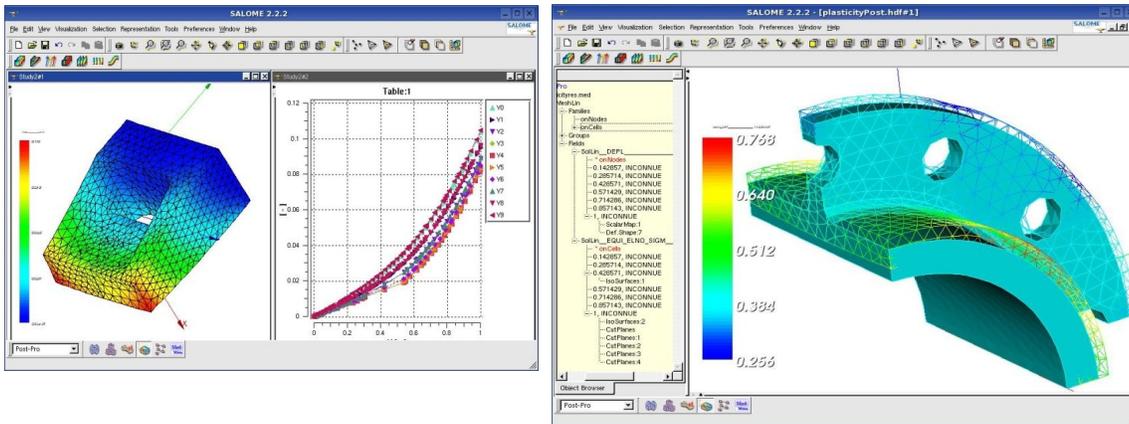
SALOME is a free software that provides a generic platform for Pre and Post-Processing for numerical simulation. It is based on an open and flexible architecture made of reusable components available as free software. Based on OpenCascade, salome allows for:

- Create/modify, import/export (IGES, STEP), repair/clean CAD models
- Mesh CAD elements, check mesh quality, import/export mesh (MED, UNV, ASCII)
- Handle physical properties and quantities attached to geometrical items
- Perform computation using one or more external solvers (coupling)
- Display computation results (scalar, vectorial)
- Manage studies (creation, save, reload)

The geometry module allows for:

- Visualization of models in 3D viewers: shading, Wireframe modes, Pre-highlighting (detection), Selection, Changing the color of a model, Display/Erase a model
- Import/Export CAD models in the following formats: IGES 5.3, STEP AP203/214 schemas, BREP (Open CASCADE internal format)
- Creation of basic geometrical objects: Point, Line, Circle, Ellipse, Arc, Vector, Plane
- Creation of 3D primitives: Box, Cylinder, Sphere, Torus, Cone
- Modeling operations: Extrusion, Revolution, Filling, Pipe creation, Offset
- Basic Sketcher
- Creation of topological objects: Vertex, Edge, Wire, Face, Shell, Solid/CompSolid, Compound
- Explode topological objects
- Boolean operations: Fuse, Common, Cut, Section
- Transformation operations with objects: Translation, Rotation, Mirror, Scaling, Multi-translation, Multi-rotation
- Advanced partition/gluing algorithm with support of material assignment
- Creation of planes using the Archimedean law
- Local operations: Fillets, Chamfer
- Shape healing functions: Sewing, Change face orientation, Suppress a hole, Suppress a face
- Topological information and dimensions: Basic properties (length, surface area, volume), Center of gravity, Axis of inertia, Bounding box, Minimal distance, Tolerance of the shape, Validity of the shape, Topological information

SALOME integrates also a MESH module, a pre/post processor with MED import, 3D map generation, dataflow support, coupling between different computing modules.

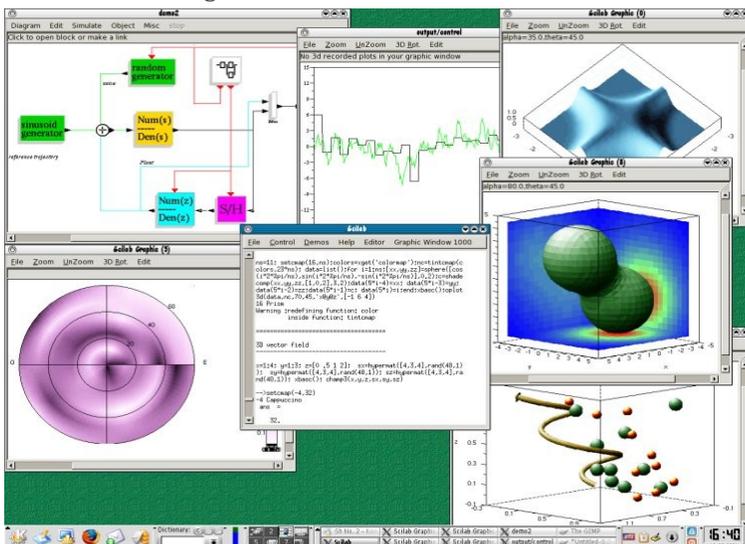


## SCILAB

<http://www.scilab.org/>

Scilab is a scientific software package for numerical computations providing a powerful open computing environment for engineering and scientific applications. Scilab is an open source software. Since 1994 it has been distributed freely along with the source code via the Internet. It is currently used in educational and industrial environments around the world. Scilab is now the responsibility of the Scilab Consortium, launched in May 2003. There are currently 25 members in Scilab Consortium. Scilab includes hundreds of mathematical functions with the possibility to add interactively programs from various languages (C, C++, Fortran...). It has sophisticated data structures (including lists, polynomials, rational functions, linear systems...), an interpreter and a high level programming language. A number of toolboxes are available with the system:

- 2-D and 3-D graphics, animation
- Linear algebra, sparse matrices
- Polynomials and rational functions
- Interpolation, approximation
- Simulation: ODE solver and DAE solver
- Scicos: a hybrid dynamic systems modeler and simulator
- Classic and robust control, LMI optimization
- Differentiable and non-differentiable optimization
- Signal processing
- Metanet: graphs and networks
- Parallel Scilab
- Statistics
- Interface with Computer Algebra: Maple package for Scilab code generation
- Interface with Fortran, Tcl/Tk, C, C++, Java, LabVIEW
- And a large number of contributions for various domains.



# Vertical business applications

## **Adaptive Planning**

**[http://www.adaptiveplanning.com/products\\_open\\_source.shtml](http://www.adaptiveplanning.com/products_open_source.shtml)**

Adaptive Planning Express Edition provides a full set of capabilities for collaborative budgeting, reporting and analysis. Features include an intuitive, spreadsheet-like user interface; standard sheets for planning expenses and revenues; a specialized personnel planning sheet; formula-based modeling; and management of organizational hierarchies and user access rights. It can be downloaded and installed for individual use, as well as configured to provide web-based support for departmental teams or entire companies.

Among the features:

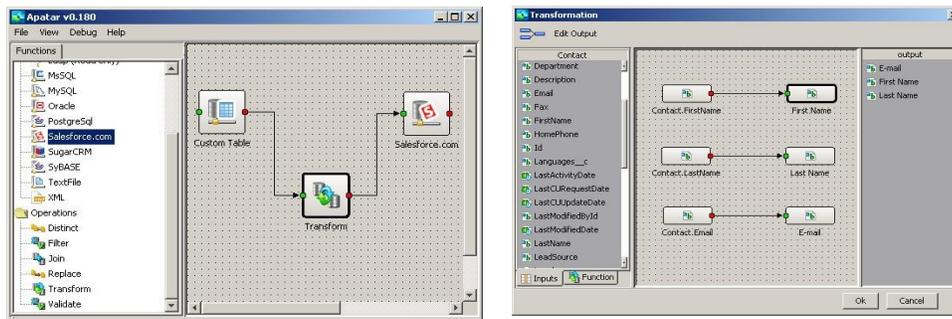
- **Complete Set of Planning Components and Financial Statements:** Budget and forecast Personnel, Expenses, Sales, and Capital from the bottom up or the top down. Link these elements via formulas to create a complete set of dynamic financial statements, including Cash Flow, Balance Sheet, and Income Statement.
- **Metrics:** Extend your plan beyond your Chart of Accounts. Budget and forecast any data required for your model, including operational metrics.
- **Automated Consolidation:** Budget and forecast changes made at the department level automatically consolidate to the corporate plan. The hassles of broken links and cutting and pasting data are eliminated.
- **Configurable, Spreadsheet-like Data Entry:** Data entry for managers is easy and intuitive. Data entry sheets are customized to show only the data relevant to them, and the interface looks and feels just like a spreadsheet.
- **Dynamic Formulas:** Formulas can be created in any data cell, just like a spreadsheet, and can reference data and assumptions from other cells to create dynamic results. Formulas can be established centrally for easy modification across the model.
- **Drill-Downs:** Real-time drill-down capabilities allow users to see where data originated.
- **Web-based Access:** Budgeting, forecasting and reporting can be done from any web browser, anytime, anywhere. No applications to install, no IT staff required to support or maintain the application. New users can be added at anytime.

Account Name	Q1	Q2	Q3	Q4	Total							
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>PL Expense</b>												
Operating Expenses												
Payroll	803,803	476,951	598,749	516,971	604,353	597,379	598,567	658,339	621,208	668,158	686,446	571,769
Benefits	300,067	94,815	112,994	102,625	120,155	118,774	117,082	130,896	123,620	132,906	136,965	124,494
Bonus	1,373	1,373	1,373	1,373	1,373	1,373	1,373	1,373	1,373	1,434	1,434	1,434
Commissions												
Direct Labor Absorb	-707,700	-734,100	-760,440	-786,780	-813,120	-839,460	-865,800	-892,140	-918,480	-944,820	-971,160	-997,500
Other Payroll												
Total	-182,517	-160,992	-77,325	-166,811	-87,040	-121,974	-158,778	-181,612	-172,229	-142,242	-144,315	65,803
Contractor & Consult	0	0	0	0	0	0	0	0	0	0	0	0
Traavel & Entertainment	12,000	12,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	17,000	17,000
Equipment Maintenance	1,000	1,000	1,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Supplies	175	175	200	200	200	225	225	225	225	225	225	250
Insurance Expense												
Depreciation	2,750	2,750	2,750	5,917	7,125	7,125	7,542	7,542	7,542	7,542	7,542	7,542
Overhead Absorbed	-176,940	-183,525	-190,110	-196,695	-203,280	-209,865	-216,450	-223,035	-229,620	-236,205	-242,790	-249,375
Other Operating Exp												
Total	-283,532	-328,392	-248,485	-339,190	-265,795	-389,289	-350,761	-299,640	-376,887	-333,567	-366,114	88,186
Allocation In	5,372	5,321	5,525	5,488	5,339	5,753	5,525	5,525	5,525	6,006	6,274	6,380
Allocation Out												
Total	-288,161	-323,071	-242,960	-333,702	-260,455	-383,537	-344,736	-294,055	-371,237	-327,556	-359,839	81,603
<b>COGS</b>												
PL COGS												
Parts/Components	1,415,520	1,468,200	1,520,880	1,573,560	1,626,240	1,678,920	1,731,600	1,784,280	1,836,960	1,889,640	1,942,320	995,000
COGS Consumables	467,208	481,795	496,242	510,729	525,216	539,703	554,190	568,677	583,164	597,651	612,138	626,625
COGS Venues	344,351	351,140	368,934	382,718	395,503	408,287	421,072	434,026	446,981	459,935	472,889	485,844
Other PL COGS												
Total	2,227,119	2,297,695	2,387,876	2,467,857	2,547,839	2,627,828	2,707,822	2,786,983	2,866,965	2,946,946	3,026,927	86,909
<b>Headcount</b>												
Headcount	10	10	12	12	12	13	13	13	13	13	14	14

**Apatar**  
<http://www.apatar.com>

An open source data integration and transformation system. It features:

- Connectivity to Oracle, MS SQL, MySQL, Sybase, DB2, MS Access, PostgreSQL, XML, InstantDB, Paradox, BorlandJDataStore, Csv, MS Excel, Qed, HSQL, Compiere ERP, Salesforce.Com, SugarCRM, Goldmine, any JDBC data sources and more.
- Single interface to manage all your integration projects
- Flexible deployment options
- Bi-directional integration
- Platform-independent, runs from Windows, Linux, Mac; 100% Java- based
- Easy customization, Java source code included
- No coding! Visual job designer and mapping enable non-developers to design and perform transformations

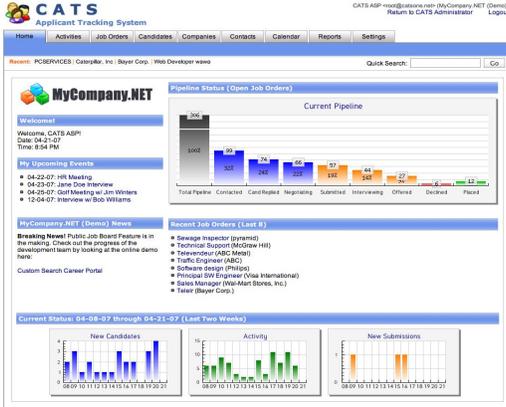


**CATS applicant tracking system**  
<http://www.catsone.com/>

CATS helps streamline the daily workload for recruiters and HR professionals by combining all of these features in one easy to use package:

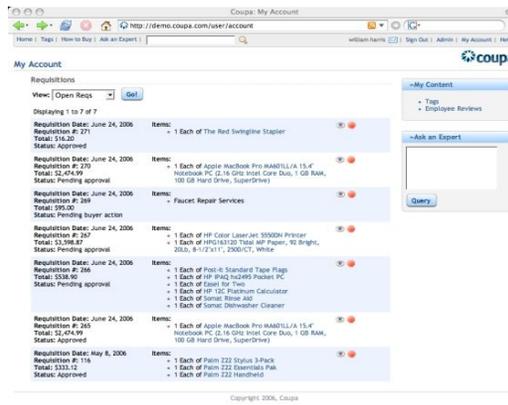
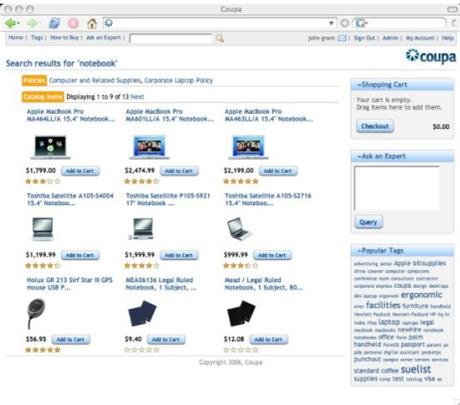
- Candidate Management
- Job Order / Position Tracking
- Full-Text Resume Search
- EEO / EOC Data Collection and Reporting
- Customer Relationship Management (CRM)
- Job Application Workflow
- E-Mail Notifications

- Dashboard and Live Reports
- Calendar
- Website Integration
- Career Portal with Online Applications



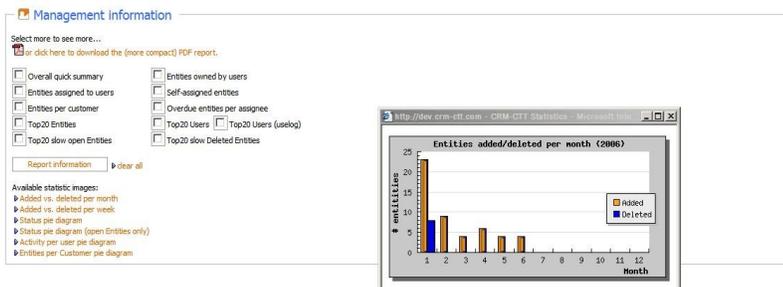
**Coupa**  
<http://www.coupa.com/>

Coupa e-procurement solutions enable companies to automate their entire buying lifecycle—from requisition, approval, and purchase order creation to RFQs, quotations, receiving, inventory, and invoicing. With a user-friendly experience that encourages mass participation, employees actually find Coupa solutions easier to use than to avoid. Supports local catalogs, non-catalog requests and requisition history.



**CRM-CTT**  
<http://www.crm-ctt.com>

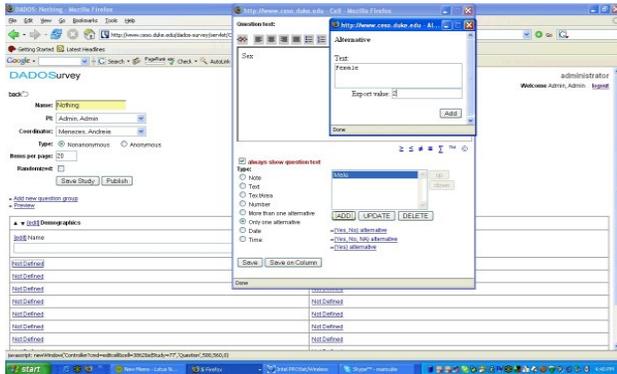
CRM-CTT is designed to track and process "entities". One can attach files to such an "entity", own it, assign it, put alerts on it, prioritize it, publish it, invoice it, etcetera. The point is that the system doesn't decide what an entity is, you do! The tool is multi-lingual (currently available lots of languages) and is fully customizable. Besides that your webmaster will need about half an hour to get it up and running, after which it takes about another 30 minutes to import your data - and off you go. The advantage of CRM-CTT over similar software is the way it can be configured. Whether you want to register customer requests, computer assets, help desk tickets, or just your own to-do list (or all together in one database), it can be simply modified to act the way you like it to act. Virtually everything can be adjusted to your needs. For example, you could use CRM-CTT to process purchase orders, including the approval process. But, you could also use it to administer your website. Maybe you need a system to deliver a front-end for financial transaction logs, or for your backup status. Or maybe you just need an allround tool to process your helpdesk tickets or your projects. Whatever it is, it can be handled by CRM-CTT.



## DADOS-SURVEY

<http://www.ceso.duke.edu/>

The Internet has been increasingly utilized in biomedical research. From online searching for literature to data sharing, the Internet has emerged as a primary means of research for many physicians and scientists. As a result, Web-based surveys have been employed as an alternative to traditional, paper-based surveys. We describe DADOS-Survey, an open-source Web-survey application developed at our institution that, to the best of our knowledge, is the first to be compliant with the Checklist for Reporting Results of Internet E-Surveys (CHERRIES). DADOS-Survey was designed with usability as a priority, allowing investigators to design and execute their own studies with minimal technical difficulties in doing so. DADOS-Survey was designed to ensure total compliance with the CHERRIES guidelines for Web-surveys. Table 5 summarizes the CHERRIES guidelines and lists features of DADOS-Survey that adhere to the CHERRIES recommendations.



## Jitterbit

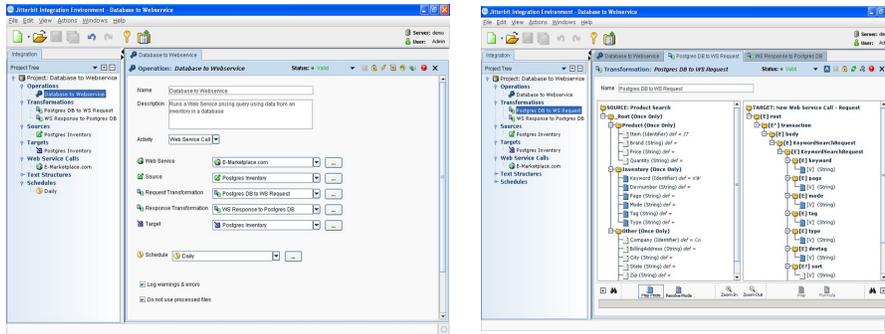
<http://www.jitterbit.com/>

Jitterbit is an open source integration technology that allows organizations to quickly and easily integrate:

- Enterprise Apps – Peoplesoft, Oracle financials, Siebel, JD Edwards, Salesforce.com, SAP, Netsuite, SugarCRM, Compiere, Vtiger CRM, OpenMFG, sharepoint, Documentum...
- Oracle, SQL Server, DB2, mySQL, Microsoft Access, Visual Fox Pro, and several others
- Web Services, Simple and Complex Flat Files (e.g. csv, heirarchical) XML, Active Directory, LDAP, Bugzilla, FTP, LDAP, JMS...

All integration operations run on the Jitterbit integration server. These operations are defined, configured, and monitored with the Jitterbit GUI application. This tool lets you point-and-click to configure all aspects of your integration:

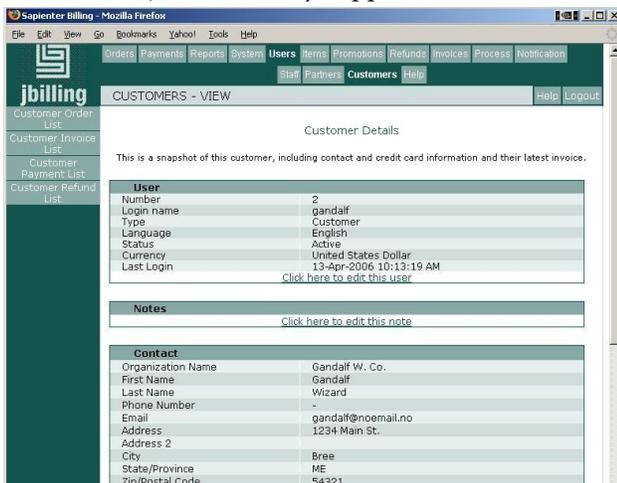
- Define integration operations including source and target systems
- Create document definitions, from simple flat file structures (e.g. comma delimited) to complex hierarchic files structures.
- Use a drag-and-drop mapping tool to transform data between your various system interfaces.
- Set schedules, create success and failure events and track the results for your integration operations.
- Consume and Publish your integrations via Jitterpaks: Jitterpaks are pre-defined, reusable integration solutions for Jitterbit. Jitterpaks include all the details required for a specific integration (i.e. a CRM app to a Web Service.), including the document definitions, transformation rules, and source and target systems.



## Jbilling

<http://sourceforge.net/projects/jbilling/>

jbilling is a web-based enterprise billing system for business of all sizes. It manages your subscribers with automatic invoicing (email and PDF) and payment processing (credit cards, checks, direct deposit). Robust, well documented, commercially supported.



## Limesurvey

<http://www.limesurvey.org/>

A complete survey management software:

- Unlimited number of surveys at the same time
- Unlimited number of questions in a survey (only limited by your database)
- Unlimited number of participants to a survey
- Multi-Lingual Surveys
- User-Management
- 20 different question types with more to come
- Creation of a printable survey version
- Ability to set conditions for questions depending on earlier answers (branching the survey)
- Re-usable editable answer sets
- Ready-made importable questions
- Assessment surveys
- Anonymous and Not-Anonymous survey
- Open and closed group of participant surveys
- Optional public registration for surveys
- Sending of invitations, reminders and tokens by email
- Option for participants to buffer answers to continue survey at a later time
- Cookie or session based surveys
- Template editor for creating your own page layout

- Extended and user-friendly administration interface
- Back-office data entry possibility
- Survey expiry dates for automation
- Enhanced import and export functions to text, CSV and MS Excel format
- Basic statistical and graphical analysis with export facility

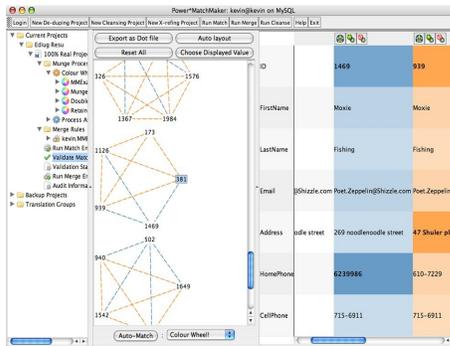
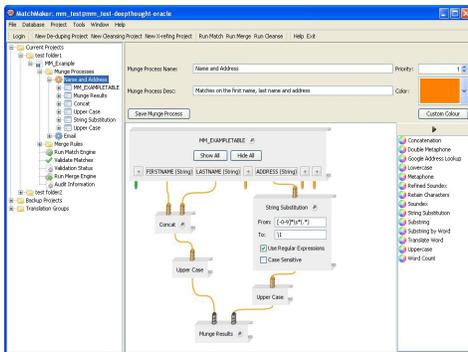
## MatchMaker

<http://www.sqlpower.ca/page/MatchMaker>

The Power\*MatchMaker will cleanse your data, validate and correct addresses, identify and remove duplicates, and build cross-references between source and target tables. This provides business users with complete and accurate data, and a single 360° view of each customer, product, sales rep and business unit. Whether you're building a Data Warehouse, Data Mart or CRM, the Power\*MatchMaker goes a long way towards ensuring the data integrity of your decision support environment or CRM database.

Features:

- Transforms and cleanses Key Dimensions
- Validates and corrects address information
- Accepts user-defined data matching criteria
- User-friendly, highly-intuitive interface for Match Verification
- Allows for user confirmation of duplicates through the online verification facility
- Merges duplicate records and their related data
- Allows for Backup of impacted records prior to data merging
- Builds cross-reference tables to link source systems' identifiers (Primary Keys) to the target database identifiers
- Runs against the entire database to perform initial data cleanup, or incorporated into the data load process

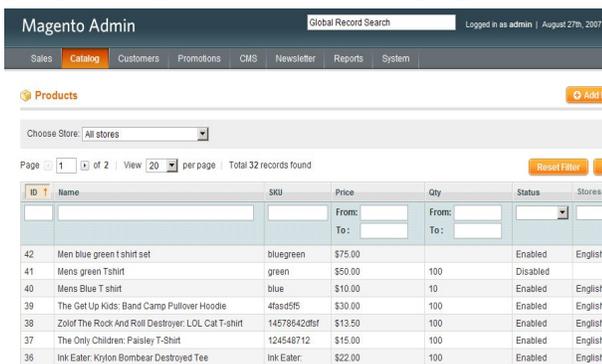


## Magento

<http://www.magentocommerce.com/>

A complete eCommerce system, with several advanced features:

search engine optimization (SEO), customer communication, ship to multiple addresses, search, product comparison, layered navigation, product tagging, product reviews, wishlist, checkout, shopping cart, customer accounts, multi-tier pricing, coupons, price rules, tax rules, integral content management system, customer groups, multiple currencies and languages.



## Marketcetera

<http://trac.marketcetera.org/>

Marketcetera is a new software platform committed to providing fast, flexible and reliable securities trading tools to financial services professionals. Our mission is to make world-class order-management and risk-management software available and affordable to individuals and to institutions of all sizes. Marketcetera focuses on building the key trading functions that are common to all organizations, thus freeing our clients to concentrate on proprietary trading algorithms and other specialized software that provide a competitive advantage. The components are:

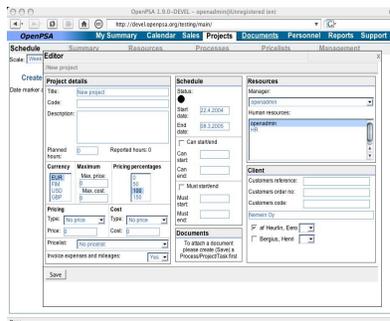
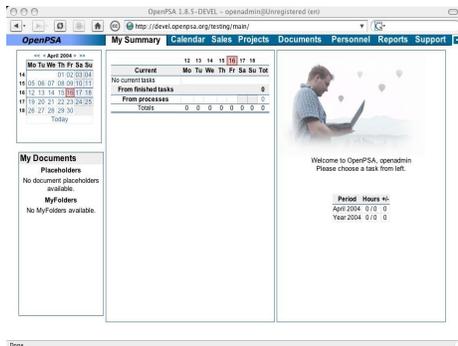
- Photon: Photon is Marketcetera's visual order-entry application. It is based on the Eclipse Rich Client Platform and is exceptionally light-weight and extensible.
- The Order Management System is the heart of the Marketcetera platform. It receives commands from various entry points (such as Photon, Order Loader or Excel), and routes them to the appropriate destination. The OMS receives the reply from the counterparty (broker, exchange, etc) and forwards it to the client that issued the original order.
- Tradebase is a web-based reporting application for all of your trading activity. It can be used to view, create and modify positions, trades, accounts and equities. Tradebase can be accessed from a stand-alone web browser or directly from within the Photon order-entry application.
- OrderLoader is a utility for bulk-loading multiple of orders from a CSV file. The format of the file itself is data-driven, which means that the header row determines the fields that need to be present in the subsequent rows and which will be added to the message that is later sent to the OMS.

## OpenPSA

<http://www.openpsa.org/>

OpenPSA is a Free, Web-based Management Software Package for Consultancies and Service organizations. OpenPSA includes the following modules:

- Projects – Project Management, Hour Reporting and Invoicing
- Sales – Contact Database and Sales Project Tracking
- Support – Help Desk and Issue Tracking
- Calendar – Group Calendar and Resource Reservations
- Documents – Document Management and Sharing



## OrangeHRM

<http://orangehrm.com>

OrangeHRM is an Open Source HRM information system that will provide a vast range of features to manage the crucial organization asset – people. It provides several modules:

- Administration Module (Admin)
- Personal Information Manager Module (PIM)
- Employee Self Service Module (ESS)
- Reports Module
- Leave Module
- Time and Attendance Module (Time)

The software supports project definition and company customers and timesheet management.

### PayMaster

<http://www.treshna.com/paymaster/>

A complete New-Zealand specific payroll and HRM application. Paymaster has been developed to match the needs of both small and large organisations. Utilising an easily customisable back-end, that calculates the results to help meet the diverse requirements of your specific payroll. Complex tax laws, leave, varying pay rates, allowances, superannuation are just some of the things the payroll system can handle. It can also handle cost accounting by analysing and reporting wage costs to multiple branches and departments, different pay rates, etc. Full reporting features are available.

### PayThyme

<http://clocksoft.co.uk/downloads/>

A UK-specific HR and payroll solution.

### Pentaho

<http://www.pentaho.com/>

The Pentaho BI Project provides enterprise-class reporting, analysis, dashboard, data mining and workflow capabilities that help organizations operate more efficiently and effectively. The software offers flexible deployment options that enable use as embeddable components, customized BI application solutions, and as a complete out-of-the-box, integrated BI platform. Ranked #1 in Open Source Business Intelligence. The project cover the following areas:

- Reporting
- Analysis
- Dashboards
- Data Mining
- Workflow
- BI Platform



### phpESP

<http://sourceforge.net/projects/phpesp/>

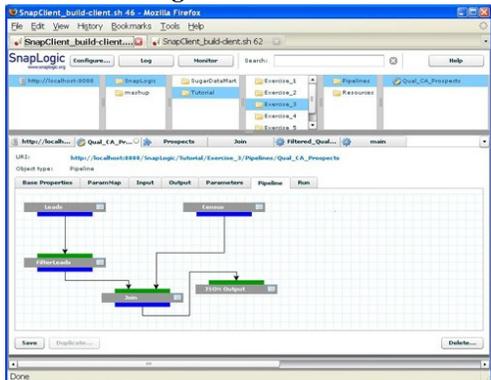
PHP scripts to let non-technical users create surveys, administer surveys, gather results, view statistics. All managed online after database initialization. Large surveys (100 questions) and large respondent groups (4,000+) can be handled without a problem.

### SnapLogic

<http://www.snaplogic.org/>

SnapLogic is an Open Source Data Integration framework that uses the universal standards of the Web and applies them to the problem of data integration. Unlike commercial integration solutions that are designed for individual integration tasks, SnapLogic has the power and flexibility to address a wide range of data integration requirements without hand-coding. Data sources accessed by SnapLogic Resources present the data in a simplified record-oriented format that eliminates the complexity of application-specific data schemas. This enables Resources to interoperate more easily and facilitates reuse. Resources can be linked to other Resources through their REST interface. Linked Resources become transformation Pipelines. Pipelines can be assembled into

hierarchies to implement complex logic and transform data for sophisticated integrations. SnapLogic has a built-in HTTP server which allows Resources to link across servers so that Pipelines can be partitioned to execute arbitrarily across data sources, intermediate transformation servers, or in any manner that is appropriate. SnapLogic uses an innovative record-streaming technique so that Resources can process individual records without waiting for entire data sets to become available.

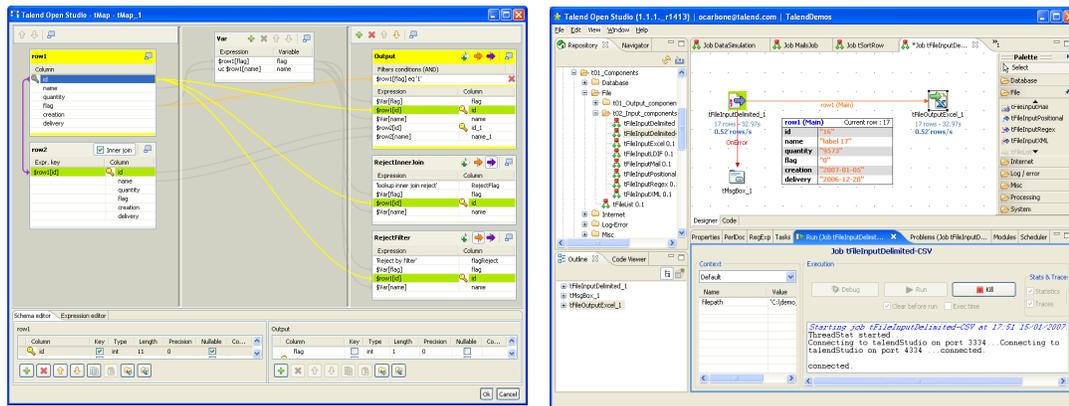


**Talend**  
<http://www.talend.com/>

Talend Open Studio’s Business Modeler leverages a top-down approach, allowing line-of-business stakeholders to get involved in the design of the integration processes. The Business Modeler provides an easy-to-understand, non-technical view of a business workflow. It typically includes both the systems and processes already operating in the organization, and the ones that will be needed in the future. Systems, connections, steps and requirements are all designed using standardized workflow notation through an intuitive graphical toolbox. Talend Open Studio’s Job Designer provides both a graphical and a functional view of the actual integration processes; the Job Designer features the Component Library – a graphical palette of components and connectors. Integration processes are built by simply drag and dropping components and connectors to the diagram, drawing connections and relationships between them, and setting their properties. Most of these properties are already inherited from the metadata.

The Component Library includes over 80 out-of-the-box components and connectors, providing basic functions such as mappings, transformations, and lookups; specialized functions such as data filtering, data multiplexing, or ELT; and support for all major RDBMS, file formats, LDAP directories, etc. The Component Library can easily be extended using industry-standard languages such as Perl, Java, or SQL.

Talend Open Studio is a metadata-driven solution, in which all metadata is stored and managed in a centralized Metadata Repository, shared by all the modules. The Metadata Repository centralizes all project information and ensures the consistency of all integration processes. Beyond source and target systems metadata, the Metadata Repository also stores business models, integration jobs, and results of their execution – making it the unique repository of information on all integration processes. Unlike many integration solutions, which are based on a centralized integration server or can only use RDBMS engines to process data, Talend Open Studio dynamically distributes the processing across a grid of systems – based on their available capacity. As a result, these systems do not need to be dedicated to executing integration processes. Instead, Talend Open Studio leverages available resources, regardless of their nature. This architectural approach enables data to be processed at a location which is the closest to its source (thus decreasing data transfers).



**TenderSystem**

**<http://www.tendersystem.com>**

TenderSystem is an Internet based electronic tendering system to source, award and manage the total procurement process. This tried and tested technology leverages the age-old principle of supply and demand, through reverse auction, ensuring that products are purchased at the best possible price, at a lower administration and management cost, than any other method. It covers all the activities needed for the electronic tender, included source, purchase, payment and management.

**TimeTrex**

**<http://www.timetrex.com>**

TimeTrex is a complete web-based payroll and time management suite which offers employee scheduling, attendance (timeclock, timesheet), job costing, invoicing and payroll all in tightly integrated package.

# Elearning applications

## CLAROLINE

<http://www.claroline.net/>

Claroline is an Open Source eLearning and eWorking platform allowing teachers to build effective online courses and to manage learning and collaborative activities on the web. Translated into 35 languages, Claroline has a large worldwide users' and developers' community. Released under Open Source license, the Claroline platform allows hundreds of organizations from 86 countries to create and administer courses and collaboration spaces online. Each course space provides a list of tools enabling the teacher to :

- Publish documents in any format (text, PDF, HTML, video...)
- Administer public and private forums
- Develop learning paths
- Create groups of students
- Prepare online exercises
- Manage an agenda with tasks and deadlines
- Publish announcements (also by e-mail)
- Propose assignments to be handed in online
- See the statistics of the users activity
- Use the wiki to write collaborative documents

The image displays two screenshots of the Claroline web application interface. The left screenshot, titled 'Demo Claroline 1.8', shows the login page with a logo of a person thinking, a search bar for 'Platform Courses', and an authentication form with fields for 'User name', 'Password', and 'Enter'. The right screenshot, titled 'Demo Claroline 1.8.1', shows the course management interface with a sidebar menu containing options like 'Course description', 'Agenda', 'Announcements', 'Documents and Links', 'Learning Path', 'Assignments', 'Exercises', 'Forums', 'Groups', 'Users', 'Virus', and 'Chat'. The main content area displays course information and an 'Add Text' button.

## ILIAS

<http://www.ilias.de/index.html>

ILIAS is a powerful web-based learning management system that allows you to easily manage learning resources in an integrated system.

- Individual Personal Desktop
- Course Management
- Group Management
- Repository with Role Based Access Control
- Learning Content (XML, SCORM, AICC)
- Standards Compliance (LOM, SCORM 1.2, IMS-QTI, AICC)
- SCORM 1.2 RTE Level 3 Certified
- Learning Progress Management
- Test & Assessment
- Survey
- Chat
- Forums
- Exercises
- RSS Support
- Podcasting
- Google Maps Support
- Authentication (LDAP, Shibboleth, CAS, Radius, SOAP)
- Web Service Interface (SOAP)

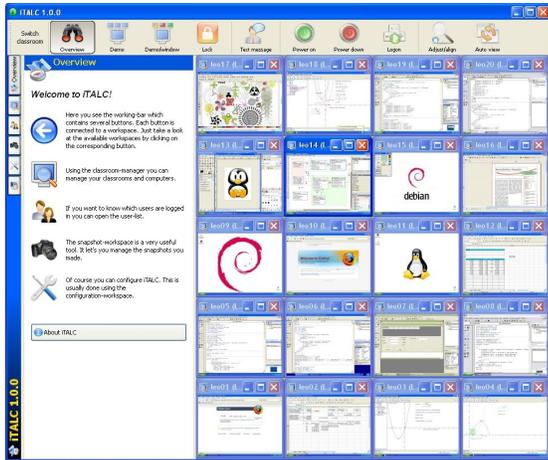


## iTALC

<http://italc.sourceforge.net/home.php>

iTALC is a use- and powerful didactic tool for teachers. It lets you view and control other computers in your network in several ways. It supports Linux and Windows 2000/XP/Vista and it even can be used transparently in mixed environments! iTALC has been designed for usage in school. Therefore it offers a lot of possibilities to teachers, such as:

- see what's going on in computer-labs by using overview mode and make snapshots
- remote-control computers to support and help other people
- show a demo (either in fullscreen or in a window) - the teacher's screen is shown on all student's computers in realtime
- lock workstations for moving undivided attention to teacher
- send text-messages to students
- powering on/off and rebooting computers per remote
- remote logon and logoff and remote execution of arbitrary commands/scripts
- home-schooling - iTALC's network-technology is not restricted to a subnet and therefore students at home can join lessons via VPN-connections just by installing iTALC client



## Mahara

<http://www.mahara.org/>

Established in 2006, Mahara is the result of a collaborative venture funded by New Zealand's Tertiary Education Commission's e-learning Collaborative Development Fund (eCDF), involving Massey University, Auckland University of Technology, The Open Polytechnic of New Zealand and Victoria University of Wellington. Mahara is a fully featured open source electronic portfolio, weblog, resume builder and social networking system, connecting users and creating online communities. Mahara is designed to provide users with the tools to demonstrate their life-long learning, skills and development over time to selected audiences.

## MOODLE

<http://moodle.org/>

Moodle is a course management system (CMS) – a free, Open Source software package designed using sound pedagogical principles, to help educators create effective online learning communities. You can download and use it on any computer you have handy (including webhosts), yet it can scale from a single-teacher site to a University with 200,000 students.

## Sakai

<http://sakaiproject.org>

Sakai is an online Collaboration and Learning Environment. Many users of Sakai deploy it to support teaching and learning, ad hoc group collaboration, support for portfolios and research collaboration. Sakai is a free and open source product that is built and maintained by the Sakai community. Sakai's development model is called "Community Source" because many of the developers creating Sakai are drawn from the "community" of organizations that have adopted and are using Sakai. Among the features:

- Announcements Tool
- Assignments Tool
- Chat Room Tool
- Discussion Tool
- Drop Box Tool
- Email Archive Tool
- Gradebook
- Help Tool
- Membership Tool
- Message Center
- My Workspace
- News Tool
- Permissions and Roles
- Post'Em
- Preferences
- Resources Tool
- Schedule Tool
- Site Info Tool

- Syllabus Tool
- Synoptic Tool
- Tests and Quizzes
- WebDAV
- Wiki Tool
- Website Information Tool Website Setup Tool

