Full View

OpenERP Book

Manage your Books

Foreword

Information Systems have played an increasingly visible role over the past several years in improving the competitiveness of business. More than just tools for handling repetitive tasks, they are used to guide and advance all of a company's daily activities. Integrated management software is today very often a key source of significant competitive advantage.

The standard response to a need for responsiveness, reliability, and rapidly increasing expectations is to create an organization based on departments with a clear linear structure, integrated around your operating processes. To increase efficiency amongst salespeople, accountants, logistics staff and everyone else you should have a common understanding of your problems.

For this you need a common language for shared references, policies and communication. An ERP (Enterprise Resource Planning) system provides the ideal platform for this common reference point.

Open Source software at the Service of Management

Risks and integration costs are important barriers to all the advantages you gain from such systems. That's why, today, few small- and medium-sized companies use ERP. In addition, the larger ERP vendors such as SAP, Microsoft and Oracle have not been able to reconcile the power and comprehensive cover of an ERP system with the simplicity and flexibility wanted by the users. But this is exactly what small and medium enterprises are looking for.

The development processes of Open Source Software, and the new business models adopted by their developers, provide a new way of resolving such cost and quality issues for this kind of enterprise software.

To make an ERP system fully available to small and medium enterprises, cost reduction is the first priority. Open source software makes it possible to greatly reduce development costs by aggressive reuse of open source software libraries; to eliminate intermediaries (the distributors), with all of their expensive sales overhead; to cut out selling costs by free publication of the software; and to considerably reduce the marketing overhead.

Since there is open interaction among thousands of contributors and partners working on the same project, the quality of the resulting software greatly benefits from the scrutiny. And you cannot be everything at once: accountant, software developer, salesperson, ISO 9001 quality professional, specialist in agricultural products, expert in the customs and habits of pharmaceutical vendors, just as a start.

Faced with these wide-ranging requirements, what could be better than a worldwide network of partners and contributors? Every single person adds own contributions according to his or her professional competence. Throughout this book you will see that the results exceed any reasonable expectations when such work is well organized.

But the real challenge of development is to make this solution simple and flexible, as well as complete. And to reach this level of quality you need a leader and co-ordinator who can organize all of these activities. So the development team of Tiny ERP, today called OpenERP, is responsible for most of the organization, synchronization and coherence of the software.

And OpenERP offers great performance in all these areas!

The OpenERP Solution

Because of its modularity, collaborative developments in OpenERP have been cleanly integrated, enabling any company to choose from a large list of available functions. As with most open source software, accessibility, flexibility and ease of use are important keywords for development. Experience has shown that there is no need to train users for several months on the system, because they can just download it and use it directly.

So you will find modules to suit all kinds of needs, allowing your company to build its customized system by simply grouping and configuring the most suitable modules. Hundreds of modules are available.

They range from specific modules like the EDI interface for agricultural products, which has been used to interface with Match and Leclerc stores, up to the generic demonstration automation module for ordering sandwiches, which can take care of the eating preferences of your staff.

The results are rather impressive. OpenERP (originally called Tiny ERP) is a Management Software that is downloaded more than any other in the world, with over 600 downloads per day. Today it is available in 18 languages and has a worldwide network of partners and contributors. Over 800 developers participate in the projects on the collaborative development system.

To our knowledge, OpenERP is the only management system which is routinely used not only by big companies but also by very small companies and independent companies. This diversity is an illustration of the software's flexibility: a rather elegant coordination between people's functional expectations of the software and great ease of use.

And this diversity is also found in the various sectors and trades which use the software, including agricultural products, textiles, public auctions, IT, and trade associations.

Last but not least, such software has arisen from the blend of high code quality, well-judged architecture and use of free technologies. In fact, you may be surprised (if you are an IT person) to find that the download size of OpenERP is only around 6 MB. When that is expanded during installation its size is mostly attributable to all the official translations that are packaged with it, not the operating code. We've moved a long way from the days when the only people who could be expected to benefit from ERP were the owners of a widget factory on some remote industrial estate.

Why this book?

Many books set out to tell readers about the management of enterprise, and equally many aim to instruct the reader in the use of a piece of specialized software. We are not aiming to add to those lists because our approach is intended to be different.

Having restructured and reorganized many businesses, we wanted our management experience to generate a work that is both instructive and practical. It was important for us not to write a manual about OpenERP, but instead a work that deals with advanced management techniques realized through these IT tools. You will see what management practices might be useful, what is possible, and then how you could achieve that in OpenERP.

This is what we will consider OpenERP to be: not an end in itself but just the tool you use to put an advanced management system into place.

Who is it for?

Written by two CEOs who have been successful with new technologies, this book is aimed at directors and managers who have an ambition to improve the performance of their whole company's management team. They are likely to already have significant responsibilities and possess the influence to get things done in their company.

It is likely that most readers will come from small- and medium-sized enterprises (up to a few hundred staff), and independent companies, because of the breadth of functions that need to be analyzed and involved in change. The same principles also apply to larger companies, however.

Structure of this book

Part One, *First steps with OpenERP*, starts with the installation of OpenERP. If you have already installed OpenERP you can directly take your first steps on a guided tour in the *Guided Tour* chapter. If you are already familiar with OpenERP or Tiny ERP you can use the *How does it apply to your Business?*chapter to find out how to create a new workflow from scratch in an empty database with nothing to distract you. Or you can skip directly to the, *Managing your Leads*, chapter in the, *Managing Customer Relationships*, to start with details of OpenERP's functional modules.

Part Two, *Managing Customer Relationships*, deals with Customer Relationship Management (CRM). You will find the elements necessary for managing an efficient sales department there, and automating tasks to monitor performance.

Part Three, *Manage your Books*, is devoted to general accounting and its key role in the management of the whole enterprise.

Part Four, *Effective Management of Operations*, handles all the operational functions of enterprise management: Human Resources for managing projects, through financial analyses supplied by analytic (or cost) accounts. You will see how using OpenERP can help you optimize your leadership of an enterprise.

Part Five, *Manage your Warehouse and Get your Manufacturing Done*, describes the physical movement of Stocks and their Manufacturing (the transformation or products and services into other products).

Part Six, *Manage your Business*, deals with Purchasing and Selling goods and services.

Part Seven, *Process and Document Management*, is focused on the Process description and Documentation & Knowledge handling that OpenERP manages.

Finally Part Eight, *System Administration and Implementation*, structured in two chapters, explains first how to administer and configure OpenERP, then provides a methodology for implementing OpenERP in your enterprise.

Note - *About the authors*

Fabien Pinckaers

Fabien Pinckaers was only eighteen years old when he started his first company. Today, over ten years later, he has founded and managed several new technology companies, all based on Free / Open Source software.

He originated Tiny ERP, now OpenERP, and is the director of two companies including Tiny sprl, the editor of OpenERP. In three years he has grown the Tiny group from one to sixty-five employees without loans or external fund-raising, and while making a profit.

He has also developed several large scale projects, such as Auction-in-Europe.com, which become the leader in the art market in Belgium. Even today people sell more art works there than on ebay.be.

He is also the founder of the LUG (Linux User Group) of Louvain-la-Neuve, and of several free projects like OpenReport, OpenStuff and Tiny Report. Educated as a civil engineer (polytechnic), he has won several IT prizes in Europe such as Wired and l'Inscene.

A fierce defender of free software in the enterprise, he is in constant demand as a conference speaker and he is the author of numerous articles dealing with free software in the management of the enterprise.

Follow Fabien on his blog http://fptiny.blogspot.com/ or on twitter fpopenerp.

Geoff Gardiner

Geoff has held posts as director of services and of IT systems for international companies and in manufacturing. He was Senior Industrial Research Fellow at Cambridge University's Institute for Manufacturing where he focused on innovation processes.

He founded Seath Solutions Ltd (http://www.seathsolutions.com/) to provide services in the use of Open Source software, particularly OpenERP, for business management.

Author of articles and books focusing on the processes and technology of innovation, Geoff is also an active contributor to the OpenERP project. He holds an MBA from Cranfield School of

Management and an MA in Engineering and Electrical Sciences from Trinity Hall, Cambridge. He is a member of the Institution of Engineering and Technology and of the Society of Authors.

Having observed, suffered, and led process implementation projects in various organizations, he has many thoughts to share on the successful adoption of an effective management automation tool.

Els Van Vossel

Els Van Vossel always had a dedication to both written and spoken word. Clear and explicit communication is crucial.

Educated as a Professional Translator in Antwerp, she worked as an independent translator on the localization of major ERP software. Els acquired ERP knowledge and decided to start working as a functional ERP consultant and a Technical Communicator for ERP software.

As such, the world of OpenSource software became more and more attractive. She started working with OpenERP software in her free time and doing so, Els really wanted to meet Fabien Pinckaers to share thoughts about documentation and training strategy. At a Partner Meeting she heard Fabien was looking for someone to manage training & documentation. This was absolutely an opportunity to be qualified, and now Els is the OpenERP Training Program Manager and responsible for the worldwide training and certification program of OpenERP.

Being an author of several Software Manuals, it is a great challenge to work on the OpenERP documentation and continuously take it to a higher level. Please note that this is a hell of a job, but Els finds great pleasure in doing it!

Follow Els on her blog http://training-openerp.blogspot.com/ or on twitter elsvanvossel.

Dedication

> *From Geoff Gardinerebooks*

My gratitude goes to my co-author, Fabien Pinckaers, for his vision and tenacity in developing Tiny ERP and OpenERP, and the team at OpenERP for its excellent work on this.

OpenERP relies on a philosophy of Open Source and on the technologies that have been developed and tuned over the years by numerous talented people. Their efforts are greatly appreciated.

Thanks also to my family for their encouragement, their tolerance and their constant presence.

> *From Els Van Vossel*

Thank you Fabien, for offering me the opportunity to work with OpenERP. Thanks to my documentation team for helping me to get a first V6.0.0 version of the documentation! In the near future, I dedicate myself to restructuring the documentation completely and manage to get a real Business-oriented version. For that, already in advance I thank the OpenERP team for their support.

> *From Fabien Pinckaers*

I address my thanks to all of the team at OpenERP for their hard work in preparing, translating and re-reading the book in its various forms. My particular thanks to Laurence Henrion and my family for supporting me throughout all this effort.

First steps with OpenERP

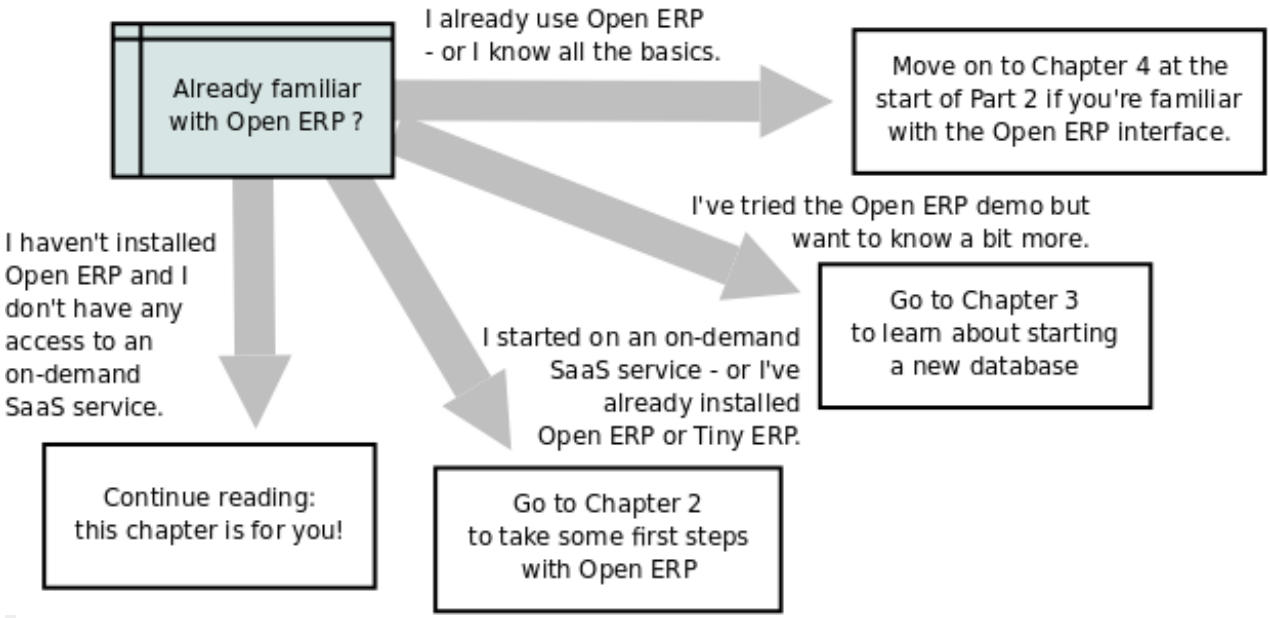
First steps with OpenERP

OpenERP is an impressive software system, being easy to use and yet providing great benefits in helping you manage your company. It is easy to install under both Windows and Linux compared to other enterprise-scale systems, and offers unmatched functionality.

The objective of this first part of the book is to help you start discovering OpenERP in practice.

The first chapter, *Installation and Initial Setup*, gives detailed guidance for installing it. If you are not a system administrator, or if you have already installed OpenERP, or if you are planning to use an online SaaS provider, then you can skip this chapter and move straight to the next chapter, *Guided Tour*. There we take you on a step-by-step guided tour using the information in the demonstration database.

If you have already used OpenERP (or Tiny ERP) a bit then you can move to the third chapter in this part of the book. In *How does it apply to your Business?* you can try out a real case, from scratch in a new database, by developing a complete business workflow that runs from purchase to sale of goods.



> *Options for reading this part of the book*

Subscribe & Start

Whether you want to test OpenERP or put it into full production, you have at least two possible starting

points:

- you can use OpenERP Online by subscribing tohttp://www.openerp.com/;
- you can install the solution on your own computers to test it in your company's system environment.

In this chapter, the easy-to-use *OpenERP Online* solution will be briefly explained. For more information about installing OpenERP on your computer, please refer to the chapter *part5-crm-install*.

Note

Some Interesting Websites from OpenERP

- Main Site: http://www.openerp.com,
- OpenERP Online Site: http://www.openerp.com/,
- Documentation site: http://doc.openerp.com/,
- Community discussion forum where you can often receive assistance:http://http://help.openerp.com/questions/.

Tip

Current documentation

The procedure for installing OpenERP and its web server are likely to change and improve with each new version, so you should always check each release's documentation on the website for the latest installation procedures.

Use OpenERP Online

Nothing is easier for you to discover OpenERP than subscribing to the OpenERP Online offer. You just need a web browser to get started.

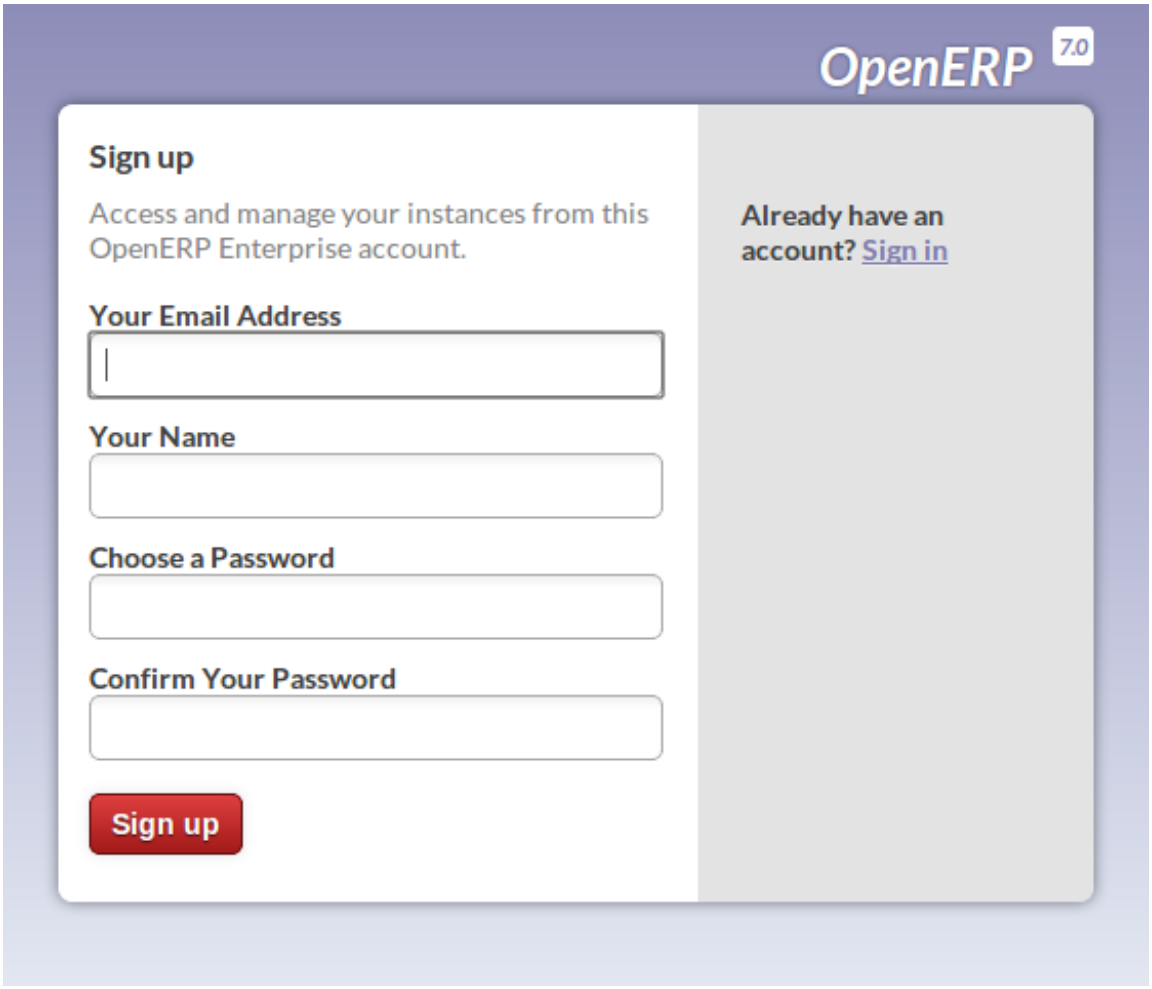
The Online service can be particularly useful to small companies, that just want to get going quickly at low cost. You have immediate access to OpenERP's Integrated Management System built on the type of enterprise architecture used in many organizations.

OpenERP's Online offer includes several services: hosting at high bandwidth, database management, stable security update, backups, maintenance (24/7 server monitoring), bug fixing and migrations.

OpenERP guarantees that the software running on OpenERP Online is exactly the same as the Open Source official version of OpenERP. Any improvement made on OpenERP will be available online. This allows you to easily switch from the online version to the local version anytime.

So even if the OpenERP Online solution might be the best solution to suit your needs today, you can easily switch to an installation on your own servers according to your company's changing requirements or growth. You are also able to change your service provider anytime, while continuing to use the exact same system. Hence, you do not depend on your host. In addition, OpenERP works with standard and open formats and programming languages which allow you to export your data and use them in any other software.

These advantages give you total control over your data, your software, your platform.



Subscribe and Start with OpenERP Online

If you want to start working with the online platform, you can navigate tohttp://www.openerp.com/. After successful registration, you will be able to configure and use OpenERP online. To log in to your OpenERP Online account, you will receive a username and password. You can build the software to fit your needs, at your own pace!

OpenERP Online - Software as a Service - is hosted by OpenERP and paid in the form of a monthly subscription. The pricing model is extremely simple. OpenERP charges a fixed fee per month per user. You will get an invoice each month according to the number of users registered in the system at that time. If you add new users during the next 30 days, they will only be charged with the next invoice. You can find the details of current pricing and payment options at http://www.openerp.com/online.

Tip

Free Trial

For a month's free trial, check out OpenERP'shttp://www.openerp.com/online, which enables you to get started quickly without incurring costs for integration or for buying computer systems. After the free trial expires, you can easily continue using OpenERP Online.

Installation and Initial Setup

Installation and Initial Setup

Installation and Initial Setup

> *Installing OpenERP under Windows or Linux to get familiar with the software should take you only half an hour or so and needs only a couple of operations.*
>
> *The first operation is to install the application and database server on a server PC (that is a Windows or Linux or Macintosh computer).*
>
> *You have a choice of approaches for the second operation: either install a web server (most probably on the original server PC) to use with standard web clients that can be found on anybody's PC, or install application clients on each intended user's PC.*

When you first install OpenERP, you will set up a database containing a little functionality and some demonstration data to test the installation.

Note

Renaming from Tiny ERP to OpenERP

Tiny ERP was renamed to OpenERP early in 2008, so anyone who has used Tiny ERP should be equally at home with OpenERP. The two names refer to the same software, so there is no functional difference between versions 4.2.X of OpenERP and 4.2.X of Tiny ERP. This book applies to versions of OpenERP from 7 onwards, with references to earlier versions from time to time.

Note

The SaaS, or “on-demand”, offer

SaaS (Software as a Service) is delivered by a hosting supplier and paid in the form of a monthly subscription that includes hardware (servers), system maintenance, provision of hosting services, and support.

You can get a month's free trial on OpenERP'shttp://www.openerp.com/, which enables you to get started quickly without incurring costs for integration or for buying computer systems. Many of OpenERP's partner companies will access this, and some may offer their own similar service.

This service should be particularly useful to small companies that just want to get going quickly and at low cost. It gives you immediate access to an integrated management system that has been built on the type of enterprise architecture used in banks and other large organizations. OpenERP is that system, and is described in detail throughout this book.

Whether you want to test OpenERP or to put it into full production, you have at least three starting points:

- no need to install OpenERP, you can test it throughhttp://www.openerp.com/,
- evaluate it on line at http://www.openerp.com and ask OpenERP for a SaaS trial hosted athttp://ondemand.openerp.com, or the equivalent service at any of OpenERP's partner companies,
- install it on your own computers to test it in your company's system environment.

There are some differences between installing OpenERP on Windows and on Linux systems, but once installed, both systems offer the same functionality so you will not generally be able to tell which type of server you are using.

Note

Linux, Windows, Mac

Although this book deals only with installation on Windows and Linux systems, the same versions are also available for Macintosh on the official website of OpenERP.

Note

Websites for OpenERP

- Main Site: http://www.openerp.com,
- SaaS or OpenERP OnLine Site: http://www.openerp.com/,
- Documentation Site: http://doc.openerp.com/,
- Community discussion forum where you can often receive informed assistance: http://www.openobject.com/forum.

Tip

Current documentation

The procedure for installing OpenERP and its web server are sure to change and improve with each new version, so you should always check each release's documentation – both packaged with the release and on the website – for exact installation procedures.

Once you have completed this installation, create and set up a database to confirm that your OpenERP installation is working. You can follow earlier chapters in this part of the book to achieve this.

The Architecture of OpenERP

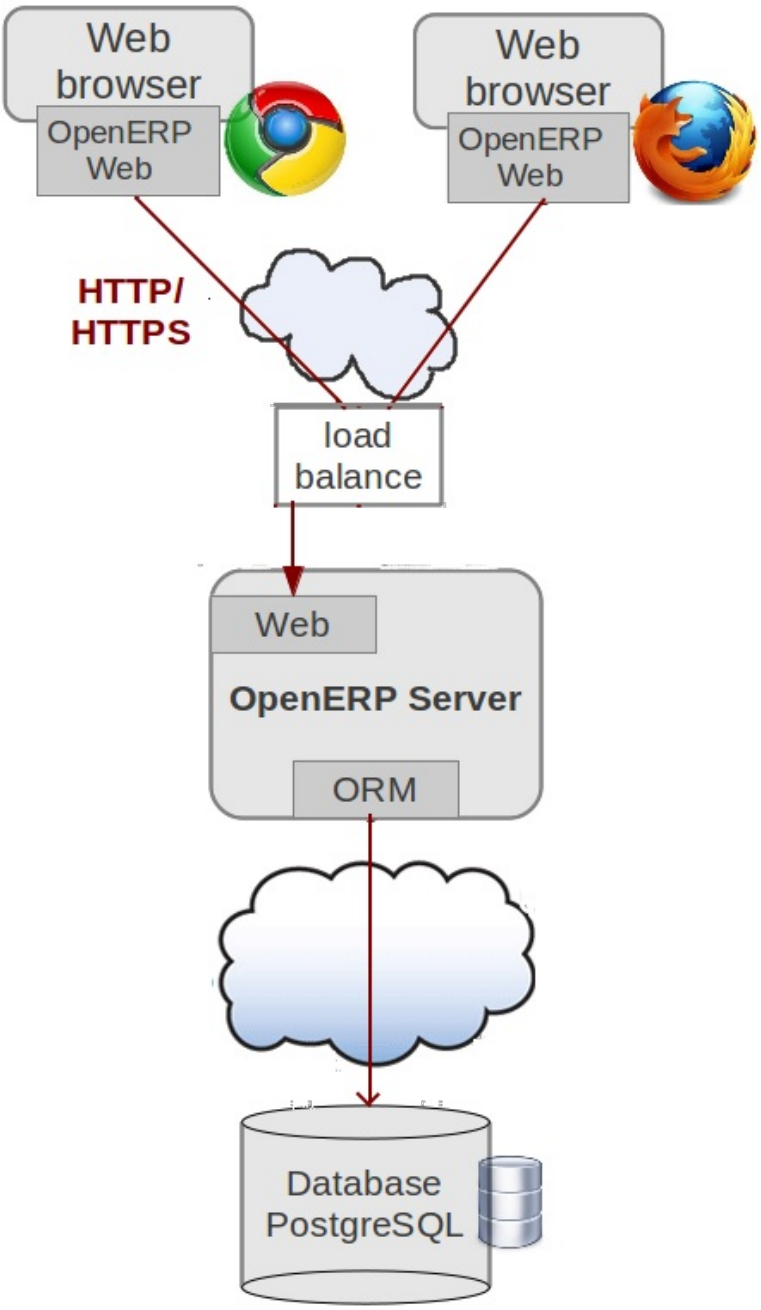
To access OpenERP V7 you can:

- use only a web browser pointed at the OpenERP client-web server.

It is best to use the web browser if the OpenERP server is some distance away (such as on another continent) because it is more tolerant of time delays. The web client is also easier to maintain, because it is generally already installed on users' computers.

An OpenERP system is formed from three main components:

- the PostgreSQL database server, which contains all of the databases, each of which contains all data and most elements of the OpenERP system configuration,
- the OpenERP application server, which contains all of the enterprise logic and ensures that OpenERP runs optimally,
- the web server, a separate application called the Open Object client-web, which enables you to connect to OpenERP from standard web browsers.



The architecture of OpenERP

Note - Terminology: Client-web – Server or Client?

The client-web component can be thought of as a server or a client depending on your viewpoint.

It acts as a web server to an end user connecting from a web browser, but it also acts as a client to the OpenERP application server.

So in this book its context will determine whether the client-web component is referred to as a server or a client.

Note - PostgreSQL, the relational and object database management system.

It is a free and open-source high-performance system that compares well with other database management systems such as MySQL and FirebirdSQL (both free), Sybase, DB2 and Microsoft SQL Server (all proprietary). It runs on all types of Operating System, from Unix/Linux to the various releases of Windows, via Mac OS X, Solaris, SunOS and BSD.

These three components can be installed on the same server or can be distributed onto separate computer servers, if performance considerations require it.

The Installation of OpenERP

Whether you are from a small company investigating how OpenERP works, or you are part of the IT staff of a larger organization and have been asked to assess OpenERP's capabilities, your first requirement is to install it or to find a working installation.

The table below summarizes the various installation methods that will be described in the following sections.

Comparison of the different methods of installation on Windows or Linux

Method	Average Time	Level of Complexity	Notes
OpenERP Demo	No installation	Simple	Very useful for quick evaluations because no need to install anything.
All-in-one Windows Installer	A few minutes	Simple	Very useful for quick evaluations because it installs all of the components pre-configured on one computer (using the client).
Independent installation on Windows	Half an hour	Medium	Enables you to install the components on different computers. Can be put into production use.
Ubuntu Linux packages	A few minutes	Simple	Simple and quick but the Ubuntu packages are not always up to date.
From source, for all Linux systems	More than half an hour	Medium to slightly difficult	This is the method recommended for production environments because it is easy to keep it up to date.

Each time a new release of OpenERP is made, OpenERP supplies a complete Windows auto-installer for it. This contains all of the components you need – the PostgreSQL database server, the OpenERP application server and the web application client.

This auto-installer enables you to install the whole system in just a few mouse clicks. The initial configuration is set up during installation, making it possible to start using it very quickly as long as you do not want to change the underlying code. It is aimed at the installation of everything on a single PC, but you can later connect clients from other PCs, Macs and Linux boxes to it as well.

The first step is to download the OpenERP installer. At this stage you must choose which version to install – the stable version or the development version. If you are planning to put it straight into production we strongly advise you to choose the stable version.

Note - Stable Versions and Development Versions

OpenERP development proceeds in two parallel tracks: stable versions and development versions.

New functionality is integrated into the development branch. This branch is more advanced than the stable branch, but it can contain undiscovered and unfixed faults. A new development release is made every month or so, and OpenERP has made the code repository available so you can download the very latest revisions if you want.

The stable branch is designed for production environments. Releases of new functionality there are made only about once a year after a long period of testing and validation. Only bug fixes are released through the year on the stable branch.

To download the version of OpenERP for Windows, follow these steps:

1. Navigate to the site http://openerp.com.
2. Click the *Pricing & Download* Link at the bottom, then, under *Windows*, sign up/sign in and download *All-in-One*.
3. This brings up the demonstration version Windows installer, currently openerp-allinone-setup-7.0.
4. Save the file on your PC - it is quite a substantial size because it downloads everything including the PostgreSQL database system, so it will take some time.

To install OpenERP and its database, you must be signed in as an Administrator on your PC. Double- click the installer file to install it and accept the default parameters on each dialog box as you go.

If you had previously tried to install the all-in-one version of OpenERP, you will have to uninstall that first, because various elements of a previous installation could interfere with your new installation. Make sure that all Tiny ERP, OpenERP and PostgreSQL applications are removed: you are likely to have to restart your PC to finish removing all traces of them.

The OpenERP client can be opened, ready to use the OpenERP system, once you have completed the all-in-one installation. The next step consists of setting up the database, and is covered in the final section of this chapter *Creating the Database*.

Independent Installation on Windows

System administrators can have very good reasons for wanting to install the various components of a Windows installation separately. For example, your company may not support the version of PostgreSQL or Python that is installed automatically, or you may already have PostgreSQL installed on the server you are using, or you may want to install the database server, application server and web server on separate hardware units.

For this situation, you can get separate installers for the OpenERP server and client from the same location as the all-in-one auto-installer. You will also have to download and install a suitable version of PostgreSQL independently.

You must install PostgreSQL before the OpenERP server, and you must also set it up with a user and

password so that the OpenERP server can connect to it. OpenERP's web-based documentation gives full and current details.

Connecting Users on Other PCs to the OpenERP Server

To connect other computers to the OpenERP server, you must set the server up so that it is visible to the other PCs, and install a client on each of those PCs:

1. Make your OpenERP server visible to other PCs by opening the Windows Firewall in the Control Panel, then ask the firewall to make an exception of the OpenERP server. In the *Exceptions* tab of Windows Firewall click *Add a program...* and choose *OpenERP Server* in the list provided. This step enables other computers to see the OpenERP application on this server.

2. Install the OpenERP client (openerp-allinone-setup-7.0-latest.exe), which you can download in the same way as you downloaded the other OpenERP software, onto the other PCs.

Tip - Version Matching

You must make sure that the version of the client matches that of the server. The version number is given as part of the name of the downloaded file. Although it is possible that some different revisions of client and server will function together, there is no certainty about that.

To run the client installer on every other PC you will need to know the IP address of main machine. The installation is automated, so you just need follow the different installation steps.

When your installation finished the client start on your machine's default browser.

Note - Why sign in as a PC Administrator?

You would not usually be signed in as a PC administrator when you are just running the OpenERP client, but if there have been problems in the installation it is easier to remain as an administrator after the installation so that you can make any necessary fixes than to switch users as you alternate between roles as a tester and a software installer.

To Start web client, Open any browser and just write**http://localhost:8069/** or **http://0.0.0.0:8069/** If you want to access it on different machine just need to set your machin's IP address instead of localhost like : **192.168.1.1:8069** There is *No database found, you must create one*then you have successfully connected to an OpenERP server containing, as yet, no databases.

Note - Connection Modes

In its default configuration at the time of writing, the OpenERP client connects to port 8069 on the server using the XML-RPC protocol (from Linux) or port 8070 using the NET-RPC protocol instead (from Windows). You can use any protocol from either operating system. NET-RPC is quite a bit quicker. OpenERP can run XML-RPC, but not NET-RPC, as a secure connection.

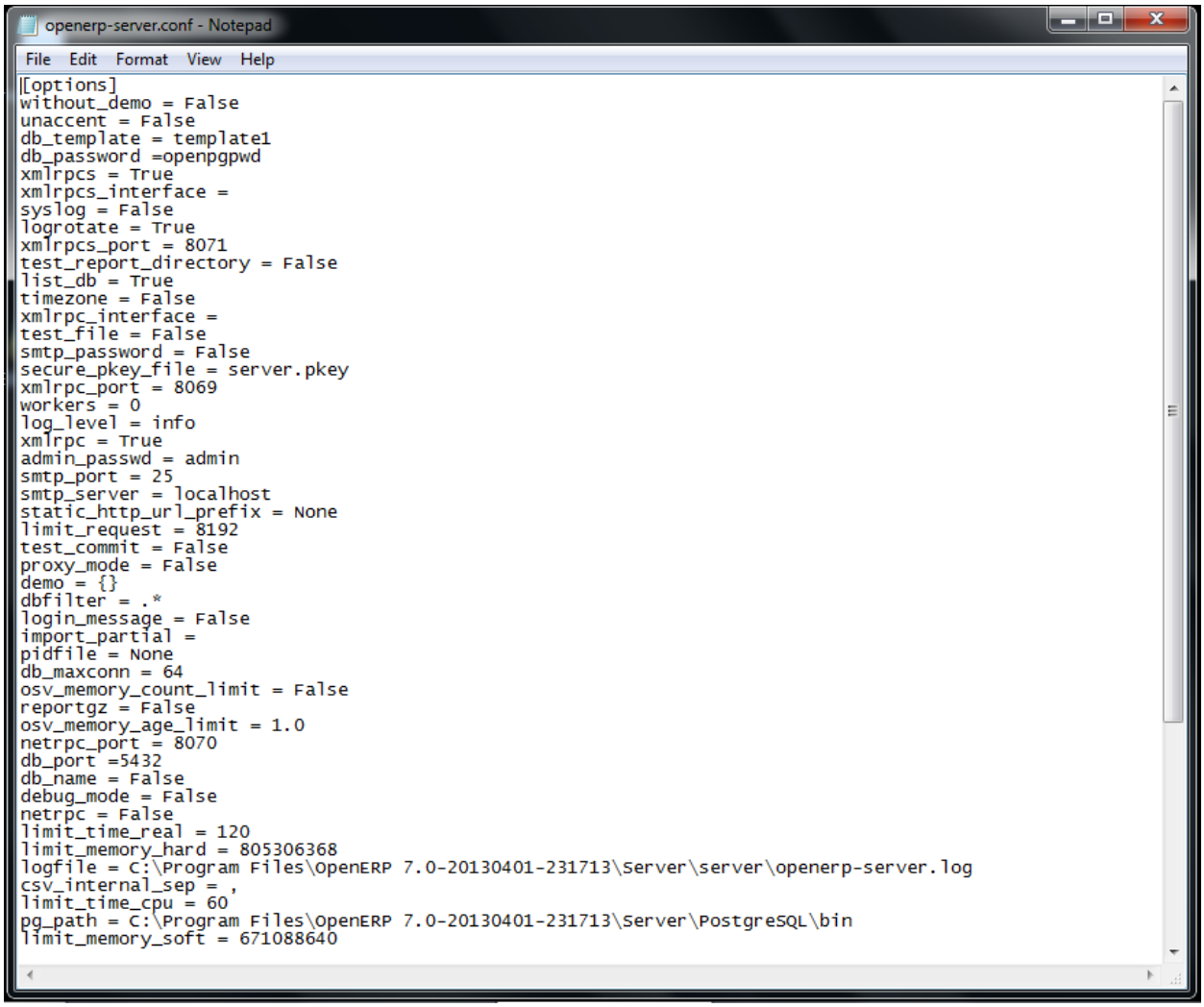
Resolving Errors with a Windows Installation

If you cannot get OpenERP to work after installing your Windows system you will find some ideas for resolving this below:

1. Is the OpenERP Server working? Signed in to the server as an administrator, stop and restart the service using *Stop Service* and *Start Service* from the menu *Start* ▸ *Programs* ▸ *OpenERP Server*.

2. Is the OpenERP Server set up correctly? Signed in to the server as Administrator, open the file **openerp-server.conf** in **C:\Program Files\OpenERP AllInOne** and check its content. This file is

generated during installation with information derived from the database. If you see something strange it is best to entirely reinstall the server from the demonstration installer rather than try to work out what is happening.



1. *Typical OpenERP configuration file*

2. Is your PostgreSQL running? Signed in as administrator, select *Stop Service* from the menu *Start* ▸ *Programs* ▸ *PostgreSQL*. If after a couple of seconds, you read *The PostgreSQL4OpenERP service has stopped* then you can be reasonably sure that the database server was working. Restart PostgreSQL.

3. Is the database accessible? Still in the PostgreSQL menu, start the pgAdmin III application which you can use to explore the database. Double-click the PostgreSQL4OpenERP connection. You can find the password in the OpenERP server configuration file. If the database server is accessible you will be able to see some information about the empty database. If it is not, an error message will appear.

4. Are your client programs correctly installed? If your OpenERP clients have not started, the swiftest approach is to reinstall them.

5. Can remote client computers see the server computer at all? Check this by opening a command prompt window (enter cmd in the window *Start* ▸ *Run...*) and
enter ping <address ofserver> there (where <address of server> represents the IP address of the server). The server should respond with a reply.

6. Have you changed any of the server's parameters? At this point in the installation the port number of the server must be 8069 using the protocol XML-RPC.

7. Is there anything else in the server's history that can help you identify the problem? Open the fileopenerp-server.log in C:\Program Files\OpenERP AllInOne(which you can only do when the server is stopped) and scan through the history for ideas. If something looks strange there, contributors to the OpenERP forums can often help identify the reason.

Installation on Linux (Ubuntu)

This section guides you through installing the OpenERP server and client on Ubuntu, one of the most popular Linux distributions. It assumes that you are using a recent release of Desktop Ubuntu with its graphical user interface on a desktop or laptop PC.

Note - Other Linux Distributions

Installation on other distributions of Linux is fairly similar to installation on Ubuntu. Read this section of the book so that you understand the principles, then use the online documentation and the forums for your specific needs on another distribution.

For information about installation on other distributions, visit the documentation section by following *Services* ▸ *Documentation* on http://www.openerp.com. Detailed instructions are given there for different distributions and releases, and you should also check if there are more up to date instructions for the Ubuntu distribution as well.

Technical Procedure: Initial Installation and Configuration

Upgrade of Ubuntu packages and installation of OpenERP and pgadmin:

```
$ sudo apt-get update

$ sudo apt-get upgrade

$ sudo apt-get install openerp-server openerp-client pgadmin3
```

To avoid having some of the labels untranslated in the client, install the language-pack-gnome-YOURLANG-base package. The following command installs the Spanish language pack:

```
$ sudo apt-get install language-pack-gnome-es-base
```

PostgreSQL version 8.4 has been used at the time of writing. You may have to replace the version number in the commands below with your own PostgreSQL version number if it differs. Postgres Database configuration:

```
$ sudo vi /etc/postgresql/8.4/main/pg_hba.conf
```

Replace the following line:

```
# "local" is for Unix domain socket connections only
local all all ident
```

with:

```
#”local” is for Unix domain socket connections only
local all all md5
```

Restart Postgres:

```
$ sudo /etc/init.d/postgresql-8.4 restart

* Restarting PostgreSQL 8.4 database server [ OK ]
```

The following two commands will avoid problems with /etc/init.d/openerp-web INIT script:

```
$ sudo mkdir /home/openerp

$ sudo chown openerp.nogroup /home/openerp
```

Create a user account called openerp with password “openerp” and with privileges to create Postgres databases:

```
$ sudo su postgres

$ createuser openerp -P

Enter password for new role: (openerp)

Enter it again:

Shall the new role be a superuser? (y/n) n

Shall the new role be allowed to create databases? (y/n) y

Shall the new role be allowed to create more new roles? (y/n) n
```

Quit from user postgres:

```
$ exit

exit
```

Edit OpenERP configuration file:

```
$ sudo vi /etc/openerp-server.conf
```

Replace the following two lines (we don’t force to use a specific database and we add the required password to gain access to postgres):

```
db_name =

db_user = openerp
```

```
db_password = openerp
```

We can now restart openerp-server:

```
$ sudo /etc/init.d/openerp-server restart

Restarting openerp-server: openerp-server.
```

Check out the logs:

```
$ sudo cat /var/log/openerp.log
```

OpenERP is now up and running, connected to Postgres database on port 5432 and listening on ports 8069 and 8070

```
$ ps uaxww | grep -i openerp

openerp      5686  0.0  1.2  84688 26584 pts/7    Sl+  12:36   0:03 /usr/bin/pytho
n ./openerp-server.py
```

```
$ sudo lsof -i :8069

COMMAND  PID USER    FD   TYPE DEVICE SIZE/OFF NODE NAME

python  5686 openerp 3u  IPv4 116555      0t0  TCP *:8069 (LISTEN)
```

```
$ sudo lsof -i :8070

COMMAND  PID USER    FD   TYPE DEVICE SIZE/OFF NODE NAME

python  5686 openerp 5u  IPv4 116563      0t0  TCP *:8070 (LISTEN)
```

Start the OpenERP client from the browser. The OpenERP login dialog box open but *No database found you must create one!*

Although this installation method is simple and therefore an attractive option, it is better to install OpenERP using a version downloaded from http://openerp.com. The downloaded revision is likely to be far more up to date than that available from a Linux distribution.

Note - Package Versions

Maintaining packages is a process of development, testing and publication that takes time. The releases in OpenERP packages are therefore not always the latest available. Check the version

number from the information on the website before installing a package. If group differs (for example 7.0) then you may decide to install it because the differences may be minor – bug fixes rather than functionality changes between the package and the latest version.

Manual Installation of the OpenERP Server

In this section you will see how to install OpenERP by downloading it from the site http://openerp.com, and how to install the libraries and packages that OpenERP depends on, onto a desktop version of Ubuntu. Here is a summary of the procedure:

1. Navigate to the page http://openerp.com with your web browser,
2. Click the *Pricing & Download* link on bottom side,
3. Download the client and server files from the *Sources* section into your home directory (or some other location if you have defined a different download area).

To download the PostgreSQL database and all of the other dependencies for OpenERP from packages:

1. Start Synaptic Package Manager, and enter the root password as required.
2. Check that the repositories main , universe and restricted are enabled.
3. Search for a recent version of PostgreSQL (such as postgresql-8.4 then select it for installation along with its dependencies.
4. Select all of OpenERP's dependencies, an up-to-date list of which should be found in the installation documents on OpenERP's website, then click *Apply* to install them.

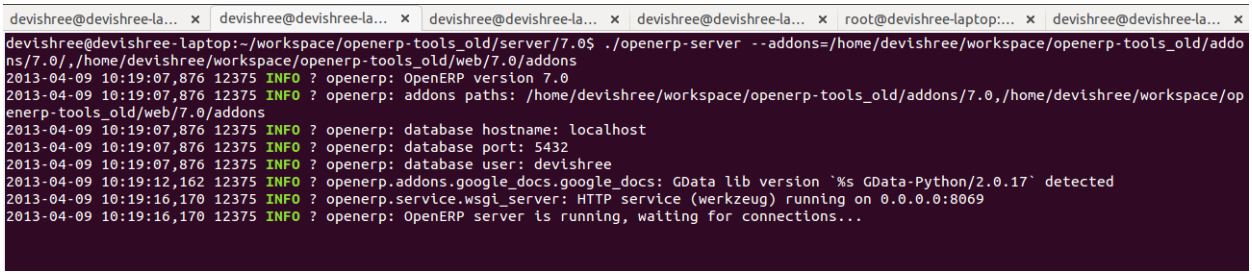
Note - Python Programming Language

Python is the programming language that has been used to develop OpenERP. It is a dynamic, non-typed language that is object-oriented, procedural and functional. It comes with numerous libraries that provide interfaces to other languages and has the great advantage that it can be learnt in only a few days. It is the language of choice for large parts of NASA's, Google's and many other enterprises' code.

For more information on Python, explore http://www.python.org.

Once all these dependencies and the database are installed, install the server itself using the instructions on the website.

Open a terminal window to start the server with the command openerp-server as well as need to mention web client path, On terminal go to server source path, and give the command ./openerp-server --addons=../addons/7.0/,../web/7.0/addons which should result in a series of log messages as the server starts up. If the server is correctly installed, the message *[...] waiting for connections...* should show within 30 seconds or so, which indicates that the server is waiting for a client to connect to it.



OpenERP startup log in the console

GTK

GTK Clients is deprecated for Openerp v7.0

Installation of an OpenERP Web Server

You can install it from sources after installing its dependencies from packages as you did with the OpenERP server, but OpenERP has provided a simpler way to do this for the web client.

To install client-web follow the up-to-date instructions in the installation document on the website.

Its default setup corresponds to that of the OpenERP server you have just installed, so should connect directly at startup.

At a terminal window type openerp-web to start the OpenERP Web server as mention above.

OpenERP web client at startup

You can verify the installation by opening a web browser on the server and navigating to**http://localhost:8069** to connect to the OpenERP web version as shown in the figure*OpenERP web client at startup*. You can also test this from another computer connected to the same network if you know the name or IP address of the server over the network – your browser should be set to **http://<server_address>:8069** for this.

Creating the Database

You can connect other clients over the network to your Linux server. Before you leave your server, make sure you know its network address – either by its name (such as **mycomputer.mycompany.net**) or its IP address (such as**192.168.0.123**).

Note - Different Networks

Communications between an OpenERP client and server are based on standard protocols. You can connect Windows clients to a Linux server, or vice versa, without problems. It is the same for Mac versions of OpenERP – you can connect Windows and Linux clients and servers to them.

To install an OpenERP client on a computer under Linux, repeat the procedure shown earlier in this section. You can connect different clients to the OpenERP server by modifying the connection parameters on each client. To do that, click the *Change* button in the connection dialog and set the following fields as needed:

- *Server* : **name** or **IP address** of the server over the network,
- *Port* : the port, whose default is **8069**,
- *Connection protocol* : **XML-RPC**.

It is possible to connect the server to the client using a secure protocol to prevent other network users from listening in, but the installation described here is for direct unencrypted connection.

If your Linux server is protected by a firewall you will have to provide access to port 8069 for users on other computers with OpenERP clients.

Verifying your Linux Installation

You have used default parameters so far during the installation of the various components. If you have had problems, or you just want to set this up differently, the following points provide some indicators about how you can set up your installation.

Tip - psql and pgAdmin tools

psql is a simple client, executed from the command line, that is delivered with PostgreSQL. It enables you to execute SQL commands on your OpenERP database.

If you prefer a graphical utility to manipulate your database directly you can install pgAdmin III (it is commonly installed automatically with PostgreSQL on a windowing system, but can also be found athttp://www.pgadmin.org/).

1. The PostgreSQL database starts automatically and listens locally on port 5432 as standard: check this by entering sudo netstat -anpt at a terminal to see if port 5432 is visible there.
2. The database system has a default role of postgres accessible by running under the Linux postgres user: check this by entering sudo su postgres -c psql at a terminal to see the psql startup message – then type \q to quit the program.
3. If you try to start the OpenERP server from a terminal but get the message socket.error: (98,'Address already in use') then you might be trying to start OpenERP while an instance of OpenERP is already running and using the sockets that you have defined (by default 8069 and 8070). If that is a surprise to you then you may be coming up against a previous installation of OpenERP or Tiny ERP, or something else using one or both of those ports.

   Type sudo netstat -anpt to discover what is running there, and record the PID. You can check that the PID corresponds to a program you can dispense with by typing ps aux | grep<PID> and you can then stop the program from running by typing sudo kill <PID>. You need additional measures to stop it from restarting when you restart the server.
4. The OpenERP server has a large number of configuration options. You can see what they are by starting the server with the argument –help. By default the server configuration is stored in the file.terp_serverrc in the user's home directory (and for the postgres user that directory

is/var/lib/postgresql .

5. You can delete the configuration file to be quite sure that the OpenERP server is starting with just the default options. It is quite common for an upgraded system to behave badly because a new version server cannot work with options from a previous version. When the server starts without a configuration file it will write a new one once there is something non-default to write to it – it will operate using defaults until then.

6. To verify that the system works, without becoming entangled in firewall problems, you can start the OpenERP client from a second terminal window on the server computer (which does not pass through the firewall). Connect using the XML-RPC protocol on port 8069 or NET-RPC on port 8070. The server can use both ports simultaneously. The window displays the log file when the client is started this way.

7. The client setup is stored in the file .terprc in the user's home directory. Since a client can be started by any user, each user would have their setup defined in a configuration file in their own home directory.

8. You can delete the configuration file to be quite sure that the OpenERP client is starting with just the default options. When the client starts without a configuration file it will write a new one for itself.

Hint - One Server for Several Companies

You can start several OpenERP application servers on one physical computer server by using different ports. If you have defined multiple database roles in PostgreSQL, each connected through an OpenERP instance to a different port, you can simultaneously serve many companies from one physical server at one time.

Database Creation

Database Creation

Use the Manage databases link in this section to create a new database, **openerp_ch01** . This database will contain the demonstration data provided with OpenERP and a large proportion of the core OpenERP functionality. You will need to know your super administrator password for this – or you will have to find somebody who does have it to create this database.

Bemerkung - The Super-administrator Password

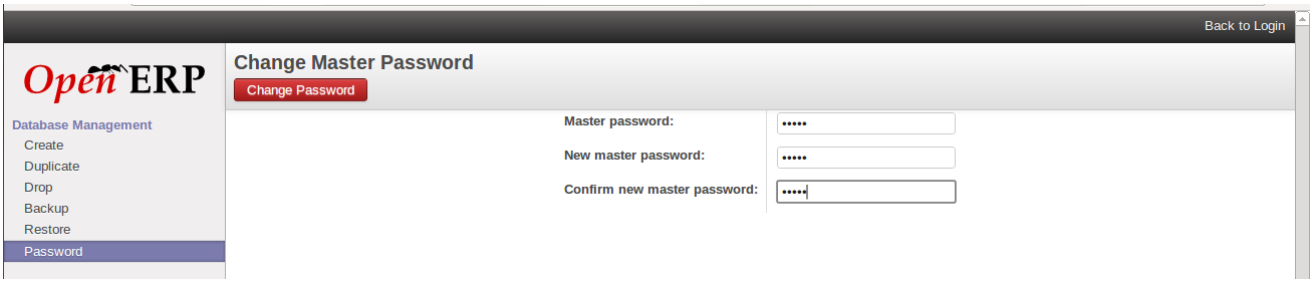
Anyone who knows the super-administrator password has complete access to the data on the server – able to read, change and delete any of the data in any of the databases there.

After first installation, the password is **admin**. This is the hard-coded default, and is used if there is no accessible server configuration file. If your system has been set up so that the server configuration file can be written to by the server, then you can change the password through the client. Or you could deliberately make the configuration file read-only so that there is no prospect of changing it from the client. Either way, a server systems administrator can change it if you forget it.

So if your system is set to allow it, you can change the superadmin password through the client by using the Send reset password link by email button of user form

The location of the server configuration file is typically defined by starting the server with the **--config**

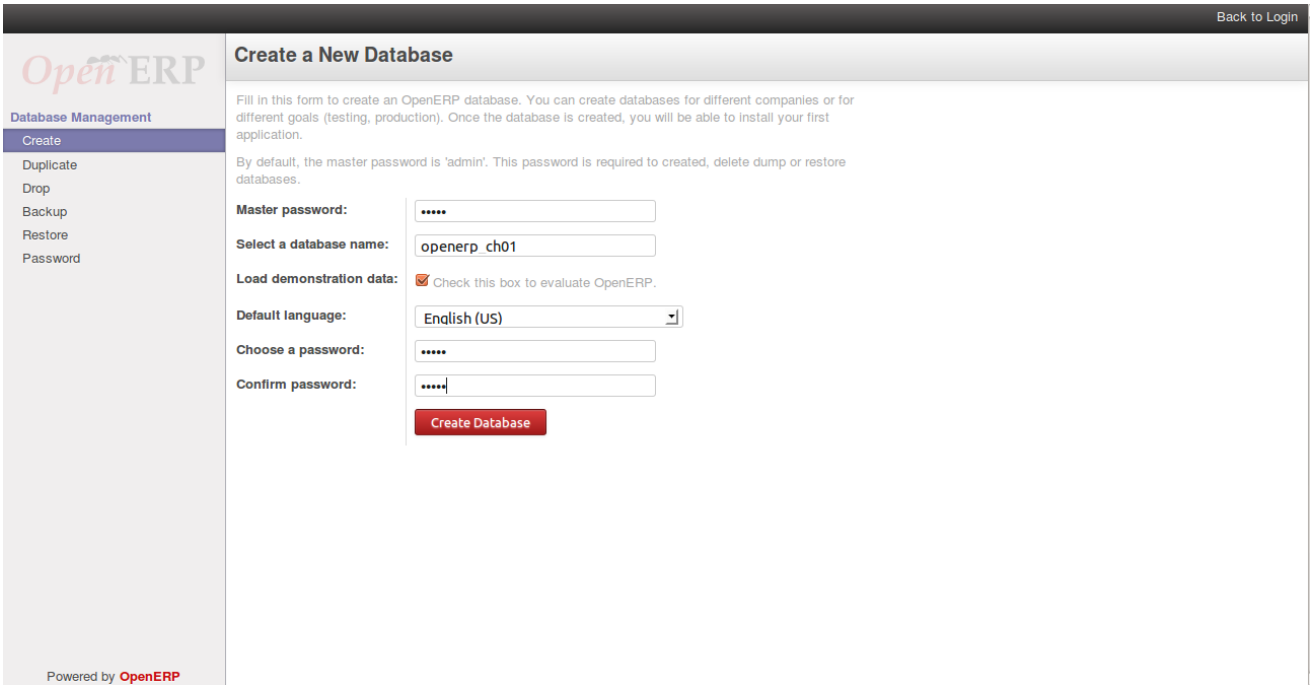
command line option.



Changing the super-administrator password through the web client

Creating the Database

Use the Manage databases link , ***Databases*** ▸ ***Create*** in the menu. Enter the super-administrator password, then the name of the new database you are creating.



Creating a new database

At the time of creation database you can see the checkbox that determines whether you load demonstration data or not. The consequences of checking this box or not affect the **whole use** of this database.

You will also see that you can choose the Administrator password. This makes your database quite secure because you can ensure that it is unique from the outset. (In fact many people find it hard to resist **admin** as their password!)

Database openerp_ch01

Wait for the message showing that the database has been successfully created, along with the user accounts and passwords (**admin/XXXX** and **demo/demo**). Now that you have created this database, you can extend it without having to know the super-administrator password.

Tipp - User Access

The combination of username/password is specific to a single database. If you have administrative rights

to a database you can modify all users.

Alternatively, you can install the **users_ldap** module, which manages the authentication of users in LDAP (the Lightweight Directory Access Protocol, a standard system), and connect it to several OpenERP databases. Using this, many databases can share the same user account details.

Bemerkung - Failure to Create a Database

How do you know if you have successfully created your new database? You are told if the database creation has been unsuccessful. If you have entered a database name using prohibited characters (or no name, or too short a name), you will be alerted by the dialog box ***Bad database name!*** explaining how to correct the error. If you have entered the wrong super-administrator password or a name already in use (some names can be reserved without your knowledge), you will be alerted by the dialog box ***Error during database creation!***.

Managing Databases

As a super-administrator, you do not only have rights to create new databases, but also to:

- backup databases,
- delete databases,
- restore databases.

All of these operations can be carried out from the **Manage Database *Login*** screen.

Tipp - Backup (copy) a Database

To make a copy of a database, go to the web ***Login*** screen and click the ***Manage Databases*** button. Then click the ***Backup*** button, select the database you want to copy and enter the super-administrator password. Click the ***Backup*** button to confirm that you want to copy the database.

Tipp - Drop (delete) a Database

To delete a database, go to the web ***Login*** screen and click the ***Databases*** button. Then click the ***Drop*** button, select the database you want to delete and enter the super-administrator password. Click the ***Drop*** button to confirm that you want to delete the database.

Tipp - Restore a Database

To restore a database, go to the web ***Login*** screen and click the ***Manage Databases*** button. Then click the ***Restore*** button, click the ***Choose File*** button to select the database you want to restore. Give the database a name and enter the super-administrator password. Click the ***Restore*** button to confirm that you want to install a new copy of the selected database. To restore a database, you need to have an existing copy, of course.

Tipp - Duplicating a Database

To duplicate a database, you can:

1. make a backup file on your PC from this database.
2. restore this database from the backup file on your PC, and give it a new name.

This can be a useful way of making a test database from a production database. You can try out the

operation of a new configuration, new modules, or just the import of new data.

A system administrator can configure OpenERP to restrict access to some of these database functions so that your security is enhanced in normal production use.

You are now ready to use databases from your installation to familiarize yourself with the administration and use of OpenERP.

New OpenERP Functionality

The database you have created and managed so far is based on the core OpenERP functionality that you installed. The core system is installed in the file system of your OpenERP application server, but only installed into an OpenERP database as you require it, as is described in the next chapter, ***Guided Tour***

What if you want to update what is there, or extend what is there with additional modules?

- To update what you have, you would install a new instance of OpenERP using the same techniques as described earlier in this section, ***Database Creation*.**
- To extend what you have, you would install new modules in the**addons** directory of your current OpenERP installation. There are several ways of doing that.

In both cases you will need to be a**root** user or **Administrator** of your OpenERP application server.

Extending OpenERP

To extend OpenERP you will need to copy modules into the**addons** directory. That is in your server's **openerp-server** directory (which differs between Windows, Mac and some of the various Linux distributions and not available at all in the Windows all-in-one installer).

If you look there you will see existing modules such as**product** and **purchase**. A module can be provided in the form of files within a directory or a a zip-format file containing that same directory structure.

You can add modules in two main ways – through the server, or through the client.

To add new modules through the server is a conventional system administration task. As**root** user or another suitable user, you would put the module in the **addons** directory and change its permissions to match those of the other modules.

To add new modules through the client you must first change the permissions of the**addons** directory of the server, so that it is writeable by the server. That will enable you to install OpenERP modules using the OpenERP client (a task ultimately carried out on the application server by the server software).

Tipp - Changing Permissions

A very simple way of changing permissions on the Linux system you are using to develop an OpenERP application is to execute the command sudo chmod 777 <path_to_addons> (where <path_to_addons> is the full path to the addons directory, a location like /usr/lib/python2.5/site-packages/openerp-server/addons).

Any user of OpenERP who has access to the relevant administration menus can then upload any new functionality, so you would certainly disable this capability for production use. You will see examples of

this uploading as you make your way through this book.

Guided Tour

Guided Tour

> *Starting to discover OpenERP, using demonstration data supplied with the system, is a good way to familiarize yourself with the user interface. This guided tour provides you with an introduction to many of the available system features.*

You would be forgiven a flicker of apprehension when you first sit at your computer to connect to OpenERP, since ERP systems are renowned for their complexity and for the time it takes to learn how to use them. These are, after all, Enterprise Resource Planning systems, capable of managing most elements of global enterprises, so they should be complicated, should not they? But even if this is often the case for proprietary software, OpenERP is a bit of an exception in the class of management software.

Even though OpenERP is a comprehensive software, the user interface and workflow management facilities are quite simple and intuitive to use. For this reason, OpenERP is one of the few software packages with reference customers in both very small businesses (typically requiring simplicity) and large accounts (typically requiring wide functional coverage).

A two-phase approach provides a good guide for your first steps with OpenERP:

1. Using a database containing demonstration data to get an overview of OpenERP's functionality (described in this chapter, *Guided Tour*)

2. Setting up a clean database to configure and populate a limited system for yourself (described in the next chapter, *How does it apply to your Business?*).

To read this chapter effectively, make sure that you have access to an OpenERP server. The description in this chapter assumes that you are using the OpenERP web client unless it states otherwise. The general functionality differs little from one client to the other.

Create the Database

Use the technique outlined in *Installation and Initial Setup* to create a new database,**openerp_ch02** . This database will contain the demonstration data provided with OpenERP and a large proportion of the core OpenERP functionality. You will need to know your super administrator password for this – or you will have to find somebody who does have it to create this seed database.

Start the database creation process from the ***Login*** page by clicking ***Databases*** and then completing the following fields on the ***Create Database*** form:

- ***Super admin password***: by default it is**admin** , if you or your system administrator have not changed it,
- ***New database name*** : **openerp_ch02** ,
- ***Load Demonstration data*** **checkbox**: **checked** ,
- ***Default Language*** : **English (US)** ,
- ***Administrator password*** : **admin** (because it is easiest to remember at this stage, but obviously completely insecure),
- ***Confirm password***: **admin** .

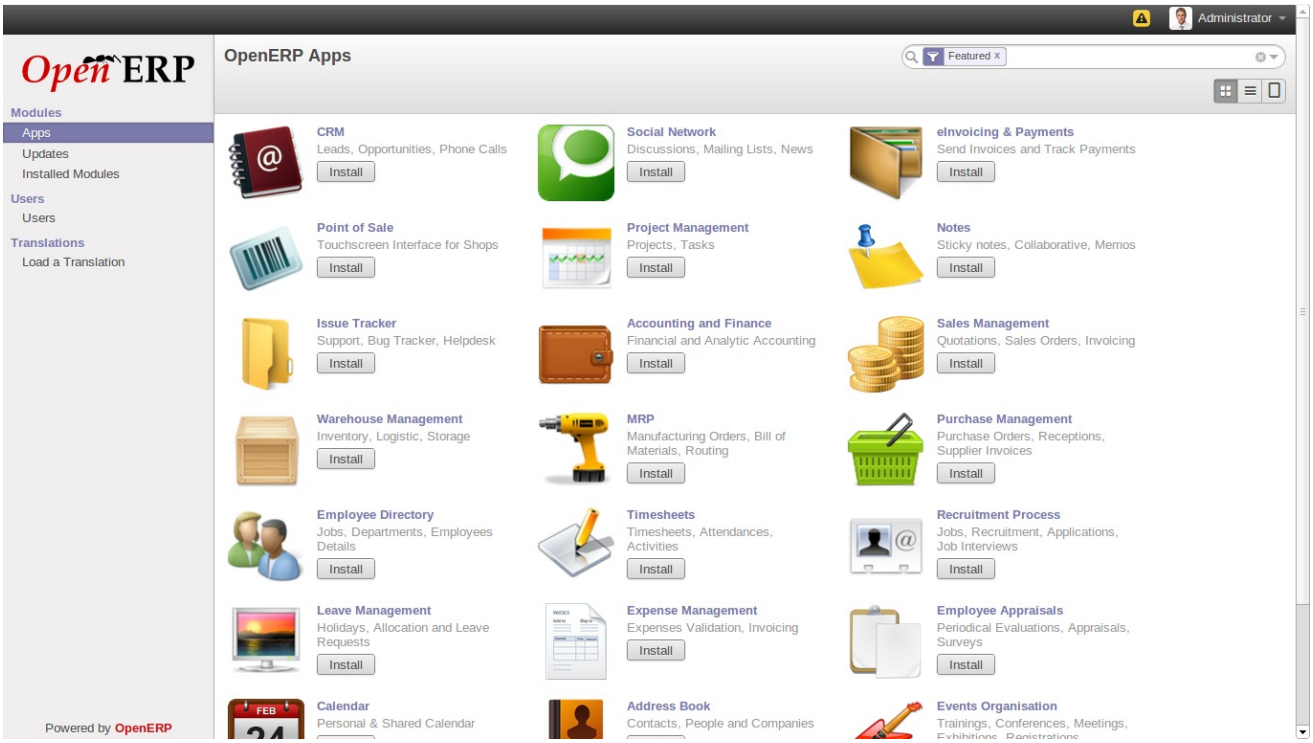
To Connect to OpenERP

Since this is the first time you have connected to OpenERP, you will be given the opportunity to select openERP's featured application

You first screen show you different Apllications of openerp you can install any from it as per your requirement. Hardly anything is installed, so this is a very simple process at the moment.

Once you are displaying the main menu, you are able to see the following screen items, as shown in screenshot *The Main Menu of the openerp_ch02 database*:

- The name of current user,
- the ***Preferences*** toolbar to the top right, showing the links to the***Change password*** page, ***Receiving Email from*** for system, ***EDIT PREFERENCES*** page, ***About OpenERP***, ***Help*** and ***Logout*** button,
- a collection of interesting and useful widgets are available on the left of the main page.



The Main Menu of the openerp_ch02 database

Preferences Toolbar

When you are connected to OpenERP, the topmost toolbar indicates which user you are connected as. So it should currently be showing ***Administrator*** (unless you logged in as another user and it is reflecting the name of that user instead).

You will find the Preferences when you click on current user name, its containing a set of useful links. First, you will find a field to the ***Receive Messages by Email*** page.

Tipp - Multi-nationals and Time Zones

If you have users in different countries, they can configure their own timezone. Timestamp displays are then adjusted by reference to the user's own localization setting.

So if you have a team in India and a team in England, the times will automatically be converted. If an Indian employee sets her working hours from 9 to 6, that will be converted and saved in the server's timezone. When the English users want to set up a meeting with an Indian user, the Indian user's available time will be converted to English time.

The ***Compose new Message*** Icon is found beside the ***User name*** link. It is only visible if you are logged into a database. You can click on that and compose a new mail at any time.

The next element in the toolbar is a link to***Timezone mismatch***. By clicking that Icon, you get a dialog box where you find a link which forward on preference changes.

- The ***Interface*** field in the ***Current Activity*** tab allows the user to switch between the**Simplified** and **Extended** interfaces.
- The ***Language*** field enables the user's working language to be changed. But first, the system must be loaded with other languages for the user to be able to choose an alternative, which is described in the next subsection of this chapter. This is a mandatory field.
- The ***Timezone*** setting indicates the user's location to OpenERP. This can be different from that of the server. All of the dates in the system are converted to the user's timezone automatically.
- The ***Menu Tips*** checkbox gives the user the choice to have tips displayed on each menu action.
- The ***Change Password*** button gives users the opportunity to change their own password. It opens a new dialog box where users may change the password and must logout and login again after the change. You should take steps (perhaps written policies) to prevent users making these too trivial.
- The ***Email*** field is for storing the current user's default e-mail address.
- The ***Signature*** field gives the user a place for the signature attached to messages sent from within OpenERP.

The ***ABOUT*** link gives information about the development of the OpenERP software and various links to other information.

The ***HELP*** link directs the user to the online documentation of OpenERP, where extensive help is available on a host of topics.

The ***LOGOUT*** link enables you to logout and return to the original login page. You can then login to another database, or to the same database as another user. This page also gives you access to the super-administrator functions for managing databases on this server.

Installing a New Language

Each user of the system can work in his or her own language. More than twenty languages are currently available besides English. Users select their working language using the Preferences link. You can also assign a language to a partner (customer or supplier), in which case all the documents sent to that partner will be automatically translated into that language.

Achtung - More about Languages

The base version of OpenERP is translated into the following languages: English, German, Chinese, Spanish, Italian, Hungarian, Dutch, Portuguese, Romanian, Swedish and Czech.

But other languages are also available: Arabic, Afghan, Austrian, Bulgarian, Indonesian, Finnish, Thai, Turkish and Vietnamese..

As administrator, you can install a new main working language into the system.

1. Select ***Settings*** in the Menu Toolbar and click ***Translations*** ▸ ***Load a Translation*** in the main menu window,
2. Select the language to install, **French** for example, and click ***Load***,
3. The system will intimate you when the selected language has been successfully installed. Click ***Close*** to return to the menu.

To see the effects of this installation, change the preferences of your user to change the working language (you may first need to ensure that you have explicitly selected English as your language, rather than keep the default, before you are given the French option). You may have to reload the page to see the effects. The main menu is immediately translated in the selected language.

Messaging as a Mechanism for Internal Communication

- Facilitates conversations with internal users or external ones (customers, suppliers,...), joining the power of instant messaging with standard emails ;
- Organize groups of discussions, an alternative to traditional mailing lists ;
- Extends the breadth of these conversations to incorporate discussions around and about business documents ;
- Incorporates a subscription system to any business event, generating notifications ;
- Displays all the messages and notifications in a threaded manner on the user's unified feeds page.

Configuring Users

The database you created contains minimal functionality but can be extended to include all of the potential functionality available to OpenERP. About the only functions actually available in this minimal database are Customers and Currencies – and these only because the definition of your main company required this. And because you chose to include demonstration data, both Customers and Currencies were installed with some samples.

Because you logged in as Administrator, you have all the access you need to configure users. Click ***Settings*** ▸ ***Users*** ▸ ***Users*** to display the list of users defined in the system. A second user **Demo User** , is also present in the system as part of the demonstration data. Click the **Demo User** name to open a non-editable form on that user.

Click the ***Access Rights*** tab to see that the demo user is a member of only the **Employee** group, and is subject to no specialized rules. The user **Administrator** is different, as you can see if you follow the same sequence to review its definition. It is a member of the **Administration / Settings** and the **Administration / Access Rights** groups, which gives it more advanced rights to configure new users.

Tipp - Groups and Users

Users and groups provide the structure for specifying access rights to different documents. Their setup answers the question "Who has access to what?"

Click ***Settings*** ▸ ***Users*** ▸ ***Groups*** to open the list of groups defined in the system. If you open the form view of the **Administration / Settings** group by clicking its name in the list, the first tab ***Users*** gives you the list of all the users who belong to this group.

You can also see in the ***Menus*** tab, the list of menus reserved for this group. By convention, the **Administration / Settings** in OpenERP has rights of access to the ***Configuration*** menu in each section. So **Sales / Configuration** is found in the list of access rights but **Sales** is not found there because it is accessible to all users. Click the ***Access Rights*** tab and it gives you details of the access rights for that group. These are detailed later in *Configuration & Administration*.

You can create some new users to integrate them into the system. Assign them to predefined groups to grant them certain access rights. Then try their access rights when you login as these users. Management defines these access rights as described in *Configuration & Administration*.

Bemerkung - Changes to Default Access Rights

New versions of OpenERP differ from earlier versions of OpenERP and Tiny ERP in this area: many groups have been predefined and access to many of the menus and objects are keyed to these groups by default. This is quite a contrast to the rather liberal approach in 4.2.2 and before, where access rights could be defined but were not activated by default.

Managing Partners

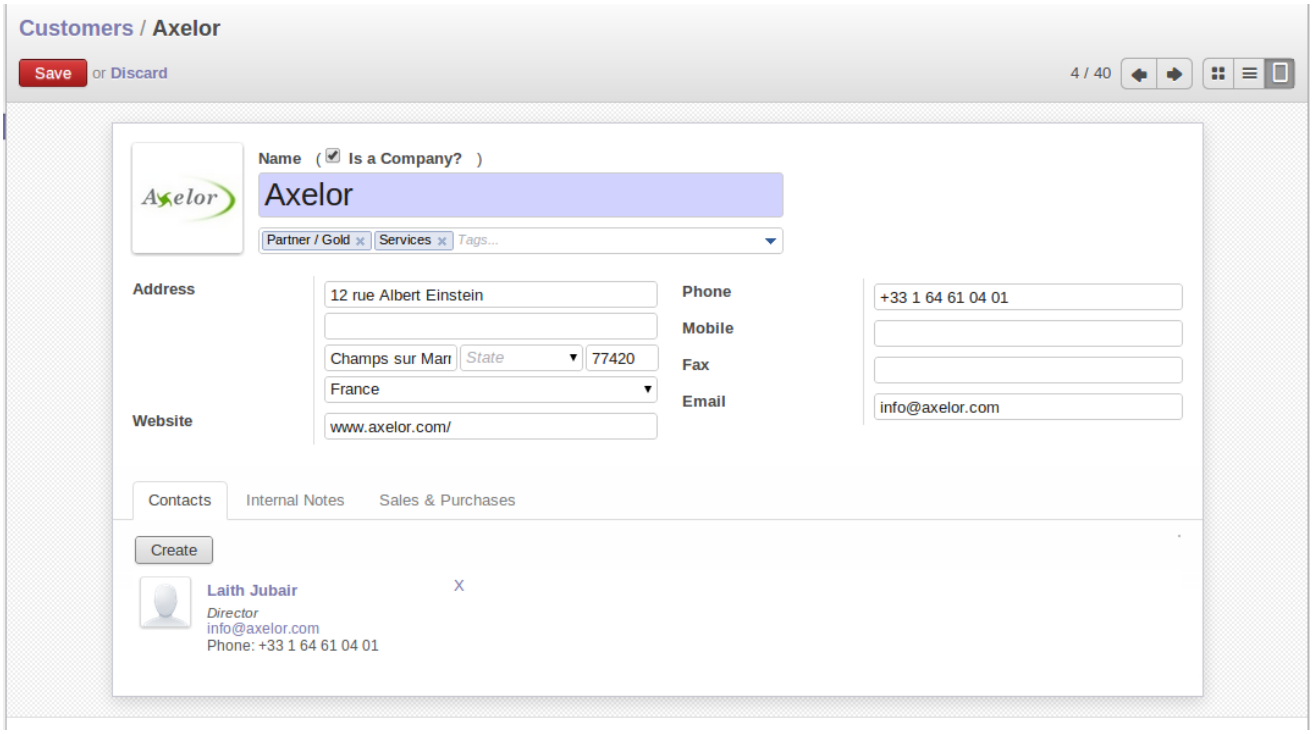
In OpenERP, a partner represents an entity that you do business with. That can be a prospect, a customer, a supplier, or even an employee of your company.

List of Partners

Click ***Sales*** ▸ ***Sales*** ▸ ***Customers*** in the main menu to open the list of partners who are customers. Then click the name of the first partner to get hold of the details – a form appears with information about the company, such as its corporate name, its primary language, its reference and whether it is a **Customer** and/or a **Supplier** . You will also find several other tabs on it:

- The Customer form contains information about different contacts at that partner, postal information, communication information and the categories it belongs to.
- the ***Sales & Purchases*** tab contains information that is slightly less immediate.
- the ***History*** tab (visible if you install other modules like **crm**) contains the history of all the events that the partner has been involved in. These events are created automatically by different system documents: invoices, orders, support requests and so on, from a list that can be configured in the system. These give you a rapid view of the partner's history on a single screen.
- the ***Internal Notes*** is an area for free text notes.

To the Top of the form There is a button nameMore is a list of Actions, Links and related to a partner. Click some of them to get a feel for their use.The print button contain the list of report and the Attachment button for attachment (Attachement button visible if you install modules **Document**).



Partner form

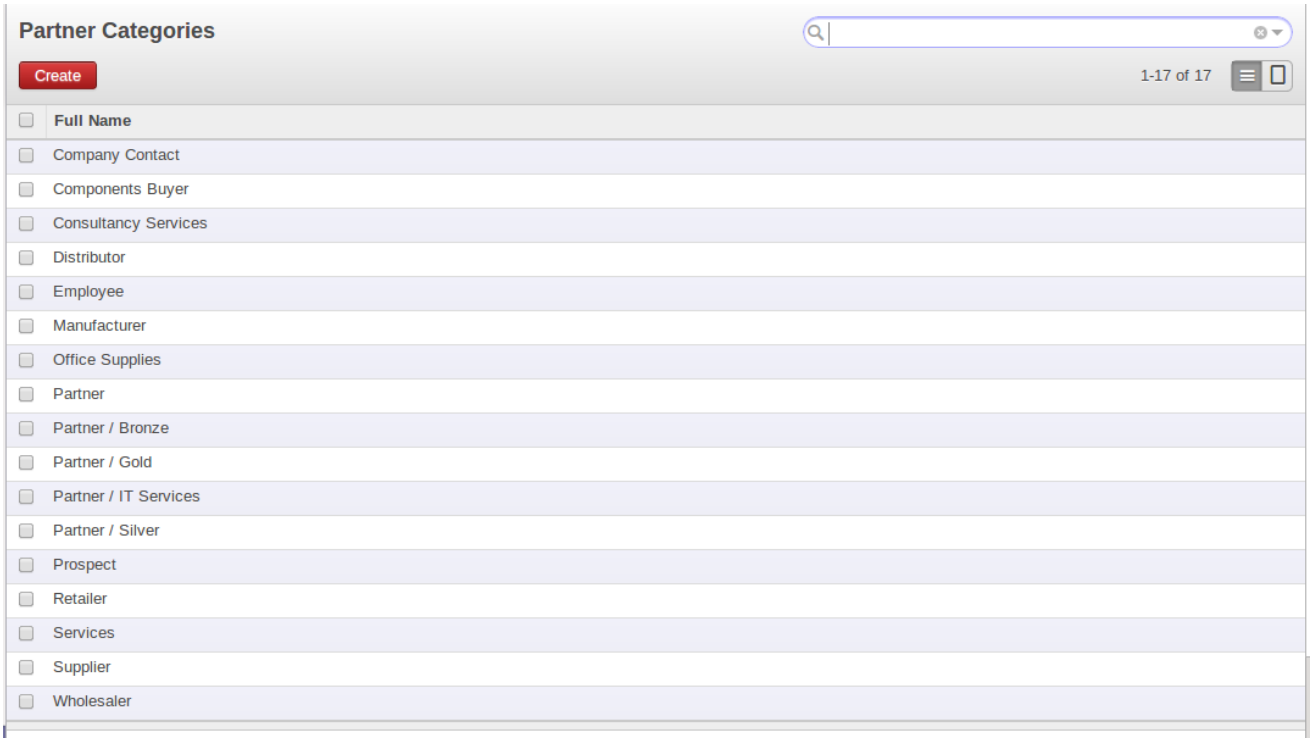
Tipp - Partner Categories

Partner Categories enable you to segment different partners according to their relation with you (client, prospect, supplier, and so on). A partner can belong to several categories – for example it may be both a customer and supplier at the same time.

But there are also Customer and Supplier checkboxes on the partner form, which are different. These checkboxes are designed to enable OpenERP to quickly select what should appear on some of the system drop-down selection boxes. They, too, need to be set correctly.

Partner Categories

You can list your partners by category or you can say by tags using the menu***Sales*** ▸ ***Configuration*** ▸ ***Address Book*** ▸ ***Partners Tags.*** Click a tag to obtain a list of partners in that category.



Categories of partner

The administrator can define new categories. So you will create a new category and link it to a partner:

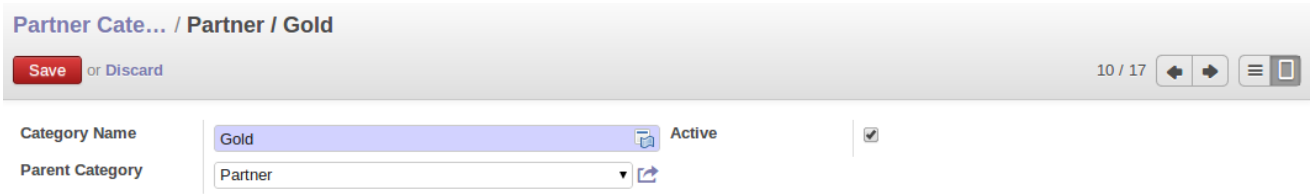
1. Use ***Sales*** ▸ ***Configuration*** ▸ ***Address Book*** ▸ ***Partners Categories*** to reach the list of categories in a list view.
2. Click ***Create*** to open an empty form for creating a new category
3. Enter **Gold** in the field ***Name***. Then click on the ***Search*** icon to the right of the ***Parent Category*** field and select **Partner** in the list that appears.
4. Then save your new category using the ***Save*** button.

You may add exiting partners to this new category in the *Partners* section.

Tipp - Required Fields

Fields colored blue are required. If you try to save the form while any of these fields are empty, the field turns red to indicate that there is a problem. It is impossible to save the form until you have completed every required field.

You can review your new category structure using the list view. You should see the new structure of **Partner / Gold** there.



Creating a new partner category

Tipp - Searching for Documents

If you need to search through a long list of partners, it is best to use the available search criteria rather than scroll through the whole partner list. It is a habit that will save you a lot of time in the long run as

you search for all kinds of documents.

Bemerkung - Example Categories of Partners

A partner can be assigned to several categories. These enable you to create alternativen classifications as necessary, usually in a hierarchical form.

Here are some structures that are often used:

- geographical locations,
- interest in certain product lines,
- subscriptions to newsletters,
- type of industry.

Installing New Functionality

All of OpenERP's functionality is contained in its many and various modules. Many of these, the core modules, are automatically loaded during the initial installation of the system and can be updated online later. Although they are mostly not installed in your database at the outset, they are available on your computer for immediate installation. Additional modules can also be loaded online from the official OpenERP site http://openerp.com. These modules are inactive when they are loaded into the system, and can then be installed in a separate step.

You will start by checking if there are any updates available online that apply to your initial installation. Then you will install a CRM module to complete your existing database.

Updating the Modules list

Click ***Settings*** ▸ ***Modules*** ▸ ***Update Modules List*** to start the updating tool. The ***Module Update*** window opens notifying the user that OpenERP will look at the server side for adding new modules and updating existing ones.

Click ***Update*** to start the update on the server side. When it is complete, you will see a ***Module update result*** section indicating how many new modules were added and how many existing modules were updated. Click ***Open Modules*** to return to the updated list.

Bemerkung - Modules

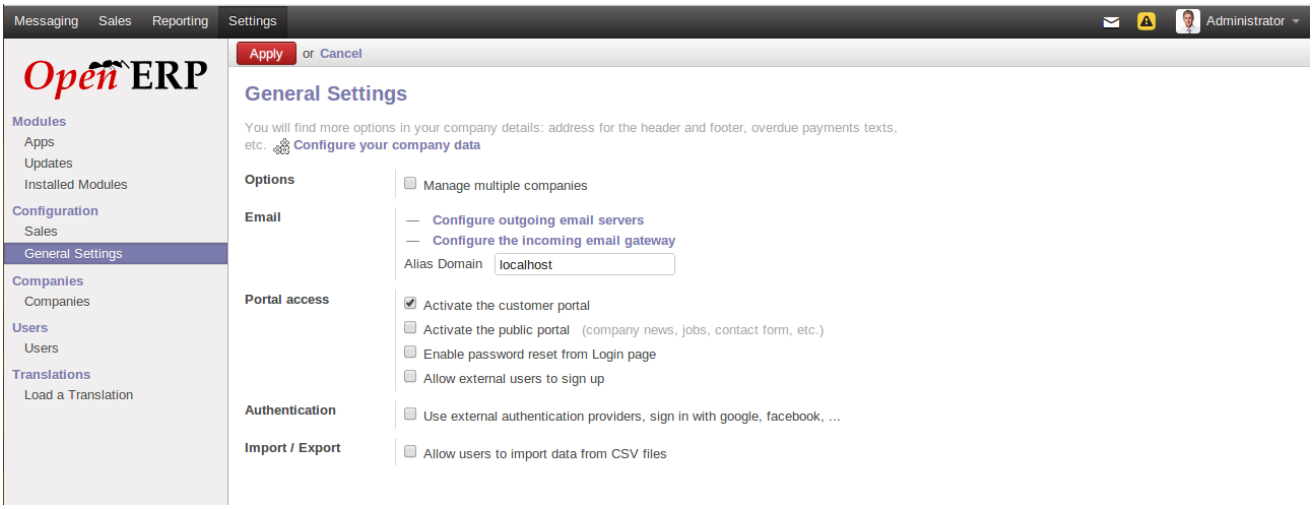
All the modules available on your computer can be found in the addons directory of your OpenERP server. Each module there is represented by a directory carrying the name of the module or by a file with the module name and .zip appended to it. The file is in ZIP archive format and replicates the directory structure of unzipped modules.

The Configuration

One of the new features of OpenERP is the***Configuration***. This provides an easy way to install modules, thanks to its user-friendly and easy-to-use interface. After installing any featured openERP application you will find out the Configuration Menu. The user may invoke this form at his own convenience using the menu ***Settings*** ▸ ***Configuration*** ▸ ***...***

Why did we call it the ***Configuration*****?** Indeed, because it allows the user to review installed applications and install related additional features or simply to install new applications on the fly.

When you go through the various steps in the Configuration, you will come across some options that are checked. These are applications already installed. In the **openerp_ch02** database configuration. Install extra applications simply by checking the corresponding options and clicking ***Apply***.



Configuration

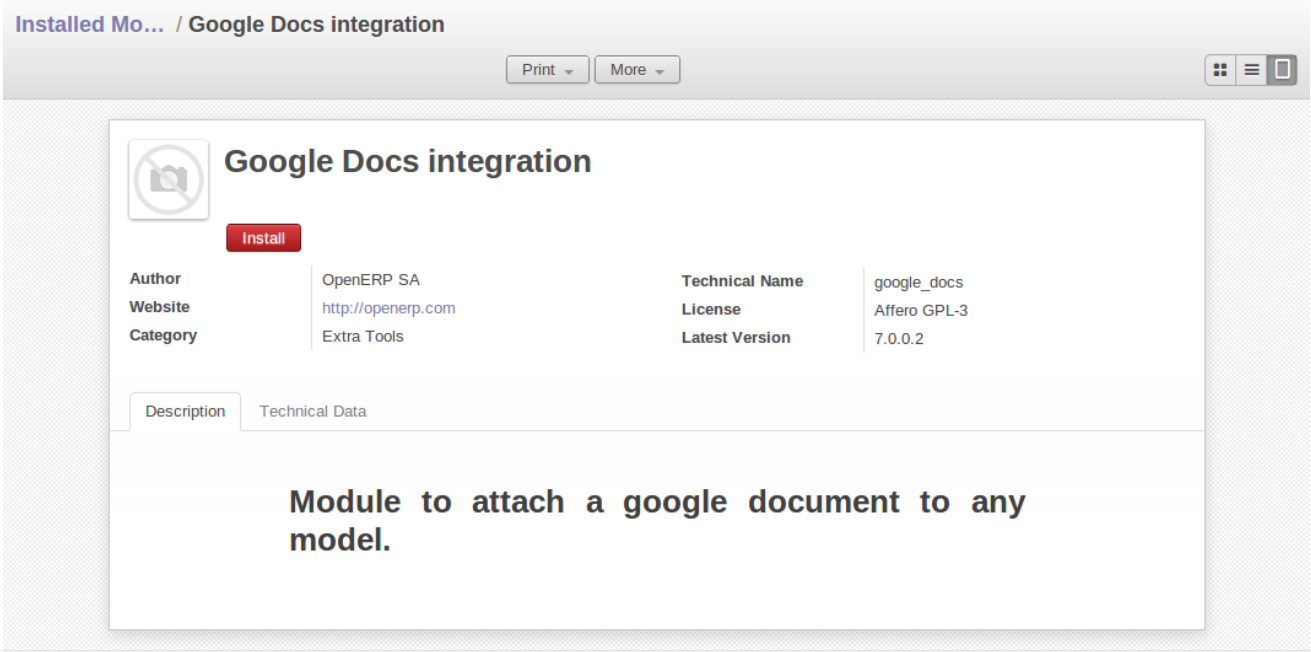
You may continue adding features this way, skip configuration steps or simply exit from this configuration. When you feel the need to load your system with additional features, you may invoke at ***Configure*** again at any point.

Installing an Application / Module from the Modules list

You will now install a module named**google_doc,** Google Docs integration: using spreadsheets and text files In general, many users have a multitude of tools and files to conduct their daily business. Besides using your ERP, many amongst us still use separate text and spreadsheet files to cover specific business needs. We now offer you to integrate text and spreadsheet files with OpenERP 7.0. This offers to the end user the possibility to take these files into account whilst using OpenERP 7.0. Its purpose is to offer a quick fix solution for those users, where the creation of a custom module to cover that particular user need would take some more time to obtain. Take a job opening in the Recruitment Process App as an example of an OpenERP object: you can attach an interview evaluation form you maintain in Google Docs, and dynamically link it to the said job application. Then, you can share this Google Docs file with the persons you wish. Taking this example a step further, you can link a document template, say your interview evaluation template, and link them to all your job openings. And every time you have a need to hire, you can mobilize the Google Doc-based evaluation template. Upon the one click installation of the Google Docs module, its configuration section allows you to specify models or templates. Prior to this, don't forget to specify your personal Google Docs credentials in your User configuration menu.

Open the list of modules from ***Settings*** ▸ ***Modules*** ▸ ***Modules*** Search for the module by entering the name **google_doc** in search text in the list that appears to open it. The form that describes the module gives you useful information such as its version number, its status and a review of its functionality. Click *Install* and the status of the module changes to***Installed.***

Tipp - From now you can schedule and install modules from kanban view using Install button.



Installation of the Google Docs module

Tipp - Technical Guide

If you select a module in any of the module lists by clicking on a module line and then on*Technical Guide* from the top Print button, OpenERP produces a technical report on that module. It is helpful only if the module is installed.

This report comprises a list of all the objects and all the fields along with their descriptions. The report adapts to your system and reflects any modifications you have made and all the other modules you have installed.

Then, either use the menu ***Settings*** ▸ ***Modules*** ▸ ***Apply Scheduled Upgrades***, or from the ***Actions*** section click ***Apply Scheduled Upgrades***, then ***Start update*** on the ***Module Upgrade*** form that appears. Close the window when the operation has completed. Return to the ***Sales*** menu; you will see the new menu ***Products*** has become available.

Installing a Module with its Dependencies

Now install the Warehouse Management module using the same process as before. Start from***Settings*** ▸ ***Modules*** ▸ ***Modules***.

1. Get the Kanban view of modules, and search for the**stock** module in that view.
2. Schedule the module for installation by clicking ***Install***.
3. Do the same for **account**.
4. After a few seconds, installation is completed.
5. You will see details of all the features installed by the modules on a new***Features*** tab on the module form.

When you return to the***Warehouse*** menu, you will find the new menu items under it like***Warehouse*** ▸ ***Warehouse Management*** ▸ ***Incoming Shipments***, ***Warehouse*** ▸ ***Products Moves***, which are a part of the Warehouse management system. You will also see all the accounting functions that are now available

in the ***Accounting*** menu.

There is no particular relationship between the modules installed and the menus added. Most of the core modules add complete menus but some also add sub-menus to menus already in the system. Other modules add menus and sub-menus as they need. Modules can also add additional fields to existing forms, or simply additional demonstration data or some settings specific to a given requirement.

Bemerkung - Dependencies Between Modules

The module form shows two tabs before it is installed. The first tab gives basic information about the module, and the second gives a list of modules that this module depends on. So when you install a module, OpenERP automatically selects all the necessary dependencies to install this module.

That is also how you develop the profile modules: they simply define a list of modules that you want in your profile as a set of dependencies.

Although you can install a module and all its dependencies at once, you cannot remove them in one fell swoop – you would have to uninstall module by module. Uninstalling is more complex than installing because you have to handle existing system data.

Bemerkung - Uninstalling Modules

Although it works quite well, uninstalling modules is not perfect in OpenERP. It is not guaranteed to return the system exactly to the state it was in before installation.

So it is recommended that you make a backup of the database before installing your new modules so that you can test the new modules and decide whether they are suitable or not. If they are not, then you can return to your backup. If they are, then you will probably still reinstall the modules on your backup so that you do not have to delete all your test data.

If you wanted to uninstall, you would use the menu ***Settings*** ▸ ***Modules*** ▸ ***Installed Modules*** and then uninstall them in the inverse order of their dependencies: **stock**, **account** from the form view's Uninstall button.

Installing Additional Functionality

To discover the full range of OpenERP's possibilities, you can install many additional modules. Installing them with their demonstration data provides a convenient way of exploring the whole core system. When you build on the **openerp_ch02** database, you will automatically include demonstration data because you checked the ***Load Demonstration Data*** checkbox when you originally created the database.

Click ***Settings*** ▸ ***Modules*** ▸ ***Modules*** to give you an overview of all of the modules available for installation.

To test several modules, you will not have to install them all one by one. You can use the dependencies between modules to load several at once.

What's New in OpenERP

- OpenERP has been structured as Business Applications and its menu has been changed to match this,
- Major improvements in usability, especially in the Web version,
- Simplified versus Extended view,
- When you search for a record, e.g. a customer / supplier, the web version will propose to create the new partner when no existing partner is found,
- When you click a Business Application in the Web version, the related kanban view will be opened,
- To display the process view, click the Question Mark next to the title in the web version,
- Views appear now like real documents and Sleeker Kanban views, tailor made, Animations also guide you to the next step, Search more easily with many advanced options, The new menu structure: rapidly getting to the point,
- "Need Action" indicators highlight what actions the user needs to undertake, Centralized configuration for all your modules, No more confusion between “Stage” and “State”, User interface content now reflects users’ access rights, Smarter system feedback,
- New and Improved Apps > Social Network : The conversation feature, Groups and mailing lists, Your inbox is a stream, Your inbox is a stream so enabling you to take actions, Conversations around business documents, Users can follow what is of interest to them.
- Getting to grips with POS: out of the box and more robust,
- Your personal productivity tools: notes, tasks and collaborative pads,
- New Applications are Events Organization, Contract Management, Project Management, Fleet Management ,
- Better Contacts Management, Better internationalization, Manage company meals,
- New and Improved Features : Categorize using tags, Lowering the barrier to import data, Sign in with Google and Facebook, Use keyboard shortcuts to navigate, Data visualization revisited: our new graph views, Google Docs integration: using spreadsheets and text files, Automated Translations: Gengo integration, Data exchange enhancements: Portal and EDI, Better module descriptions, Email aliases, Process automation through easy configuration of products, Better demo data,
- Improved Business Flows : Sale order enhancements, Purchase order improvements, Delivery enhancements, Reception improvements, Invoicing enhancements, Payments, Reconciliation,
- Your OpenERP transformed into an Apps Suite : Splitting Sales & stock management, Splitting Calendar and CRM, Splitting Project and Accounting, Splitting Expenses and Invoicing, Splitting Reception and delivery, Splitting Address Book and Sales/CRM, Splitting Timesheets and Attendances, Moving Global Attachments to the Document Management App
- The Enhanced OpenERP Services : Install any module in one click, Maintenance, Updates, Migration,
- Dynamic Filters which allow you to easily create and save your own filters, with Group by options, Extended filters, and much more,

Getting Started with OpenERP

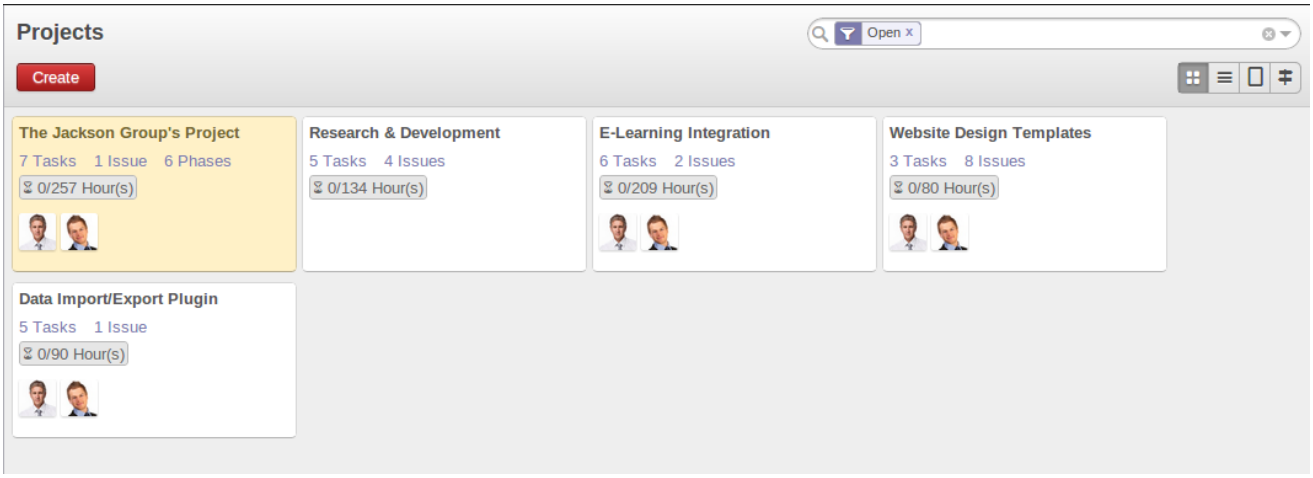
You will now explore the database **openerp_ch02** with these profile modules installed to give you an insight into the coverage of the core OpenERP software.

Tipp - Translating New Modules

When you have installed a new module and are using additional languages to English, you have to reload the translation file. New terms introduced in these modules are not translated by default. To do this use ***Settings*** ▸ ***Translations*** ▸ ***Load an Official Translation***

Depending on the user you are connected as, the page appears differently. Using the installation sequence above, certain kanban may be assigned as various users' home pages. They show a summary of the information required to start the day effectively. A project kanban might contain:

- Display numbers of tasks,
- Display numbers of issues,
- Display numbers of phases,
- Show the team members,
- Display spend time from assign planned time.



Project Kanban

Tipp - Creating Shortcuts

Each user has access to many menu items from the menu. But in general, an employee uses only a small part of the system's functions.

The following sections present an overview of the main functions of OpenERP. Some areas are covered in more detail in the following chapters of this book and you will find many other functions available in the optional modules. Functions are presented in the order that they appear on the main menu.

Basic Concepts

Partners & Contacts

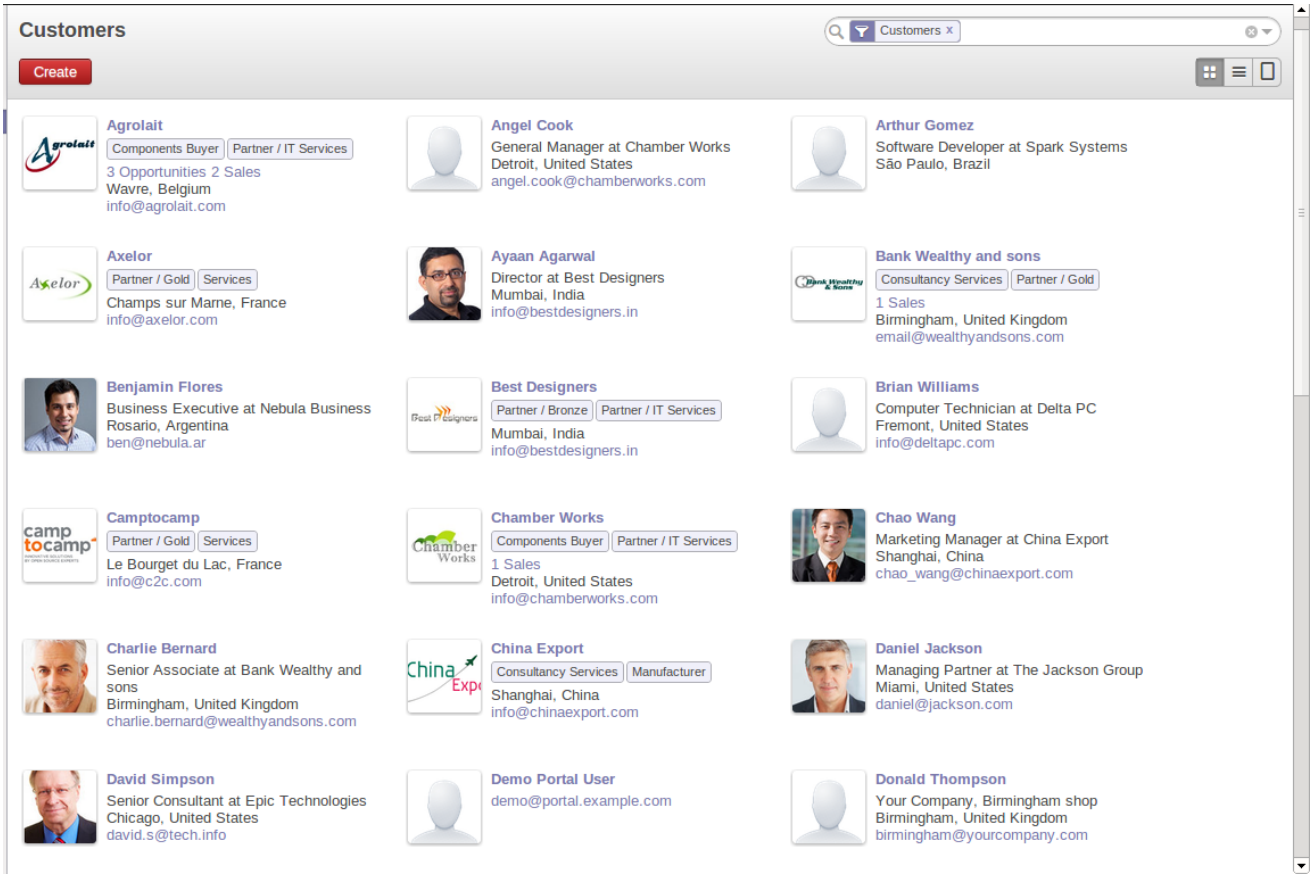
To get familiar with the OpenERP user interface, you will start working with information about partners.

Clicking ***Sales*** ▸ ***Address Book*** ▸ ***Customers*** brings up a list of partners that were automatically loaded when you created the database with ***Load Demonstration Data*** checked.

Search for a Partner

Above the partner list you will see a search form that enables you to quickly filter the partners.

The **Customers** filter is enabled by default showing partners who are customers. If you have applied no filter, the Kanban shows every partner in the system. For space reasons, this view shows few partners. If you want to display other records, you can search for them or show whole kanban using the ***Show more...(X remaining)*** Button at the end.



Standard partner search

In the web version, if you click the name of a partner, the form view corresponding to that partner opens in Read-Only mode.Once you have a form, you can toggle between the two modes by clicking ***Save*** or ***Cancel*** when in Edit mode and *Edit* when in Read-Only mode.

Partner Form

The partner form contains several tabs, all referring to the current record:

- ***Contract***,
- ***Internal Notes***,
- ***Sales & Purchases***,
- ***Accounting***,
- ***History***.

The fields in a tab are not all of the same type – some (such as *Name*) contain free text, some (such as the ***Language***) enable you to select a value from a list of options, others give you a view of another object (such as ***Partner Contacts*** – because a partner can have several contacts) or a list of links to another object (such as ***Partner Categories***). There are checkboxes (such as the ***Active*** field in the ***Sales & Purchases*** tab), numeric fields (such as ***Credit Limit*** in the ***Accounting*** tab) and date fields (such as ***Date***).

The ***History*** tab gives a quick overview of partner activities – an overview of useful information such as Leads and Opportunities, Meetings, Phone Calls, Emails and Tasks. Events are generated automatically by OpenERP from changes in other documents that refer to this partner.

It is possible to add events manually which directly relate to the corresponding form, such as a note recording a phone call. To add a new event click ***New*** in the ***Phone Calls*** section. That opens a new ***Phone Call*** pop-up form enabling a phone-call event to be created and added to the current partner.

Possible Partner Actions

To top center of the partner form is a Button namedPrint containing a list of possible***Reports*** , and button named More containing ***Actions*** and quick ***Links*** about the partner displayed in the form.

You can generate PDF documents for the selected object (or, in list view, about one or more selected objects) using certain buttons in the ***Print*** button

- ***Labels***: print address labels for the selected partners,
- ***Overdue Payments***: print a letter to notify the selected partners of overdue payments,

Certain actions can be started by the following buttons in the*Actions* section of the More button

- ***Mass Mailing***: enables you to send an email to a selection of partners,

Partners are used throughout the OpenERP system in other documents. For example, the menu***Sales*** ▸ ***Sales Orders*** brings up all the Sales Orders in list view. Open an order in form view and click the name of a partner, even when the form is read-only. The Partner form will open.

Products

In OpenERP, product is used to define a raw material, a stockable product, a consumable or a service. You can work with whole products or with templates that separate the definition of products and variants (***extra module***).

For example, if you sell t-shirts in different sizes and colors:

- the product template is the “T-shirt” which contains information common to all sizes and all colors,
- the variants are “Size:S” and “Color:Red”, which define the parameters for that size and color,
- the final product is thus the combination of the two – T-shirt in size S and color Red.

The value of this approach, for some sectors, is that you can just define a template in detail and all of its available variants briefly, rather than every item as an entire product.

> ### Bemerkung - *Example Product Templates and Variants*

> A product can be defined as a whole or as a product template and several variants. The variants can be in one or several dimensions, depending on the installed modules.
>
> For example, if you work in textiles, the variants on the product template for “T-shirt” are:
>
> - Size (S, M, L, XL, XXL),
> - Colour (white, grey, black, red),
> - Quality of Cloth (125g/m2, 150g/m2, 160g/m2, 180g/m2),
> - Collar (V, Round).
>
> This separation of variant types requires the optional module **product_variant_multi**. Using it means that you can avoid an explosion in the number of products to manage in the database. If you take the example above, it is easier to manage a template with 15 variants in four different types than 160 completely different products. This module is available in **extra-addons**.

The ***Sales*** ▸ ***Products*** menu gives you access to the definition of products and their templates and variants.

Tipp - Consumables

In OpenERP, a consumable is a physical product which is treated like a stockable product, with the exception that stock management is not taken into account by the system. You could buy it, deliver it or produce it but OpenERP will always assume that there is enough of it in stock. It never triggers a procurement exception.

Open a product form to see the information that describes it. The demonstration data show several types of products, which gives quite a good overview of the options.

Price lists (***Sales*** ▸ ***Configuration*** ▸ ***Pricelists***) determine the purchase and selling prices and adjustments derived from the use of different currencies. The ***Default Purchase Pricelist*** uses the product's ***Cost Price*** field for the Purchase price to be calculated. The ***Public Pricelist*** uses the product's ***Sale Price*** field to calculate the Sales price in quotations.

Price lists are extremely flexible and enable you to put a complete price management policy in place. They are composed of simple rules that enable you to build up a rule set for most complex situations: multiple discounts, selling prices based on purchase prices, price reductions, promotions on product ranges and so on.

You can find many optional modules to extend product functionality, such as:

- **membership** : for managing the subscriptions of members of a company,
- **product_electronic** : for managing electronic products,
- **product_extended** : for managing production costs,
- **product_expiry** : for agro-food products where items must be retired after a certain period,
- **product_lot_foundry** : for managing forged metal products.

All of the above modules are found in **extra-addons**, except for the **membership** and the **product_expiry** module.

Boost your Sales

OpenERP provides many tools for managing relationships with partners. These are available through the ***Sales*** menu.

Tipp - *CRM & SRM*

CRM stands for Customer Relationship Management, a standard term for systems that manage client and customer relations. **SRM** stands for Supplier Relationship Management, and is commonly used for functions that manage your communications with your suppliers.

Through Customer Relationship Management, OpenERP allows you to keep track of:

- Leads
- Opportunities
- Meetings
- Phone Calls
- Claims
- Helpdesk and Support
- Fund Raising

OpenERP ensures that each case is handled effectively by the system's users, customers and suppliers. It can automatically reassign a case, track it for the new owner, send reminders by email and raise other OpenERP documentation and processes.

All operations are archived, and an email gateway lets you update a case automatically from emails sent and received. A system of rules enables you to set up actions that can automatically improve your process quality by ensuring that open cases never escape attention.

As well as those functions, you have got tools to improve the productivity of all staff in their daily work:

- an email client plugin for Outlook and Thunderbird enabling you to automatically store your emails and their attachments in the Knowledge Management (previously Document Management System) integrated with OpenERP,
- interfaces to synchronize your Contacts and Calendars with OpenERP,
- sync your meetings on your mobile phone,
- build a 360° view on your Customer,
- integration with Google applications.

You can implement a continuous improvement policy for all of your services, by using some of the statistical tools in OpenERP to analyze the different communications with your partners. With these, you can execute a real improvement policy to manage your service quality.

The management of customer relationships is detailed in the second section of this book (see *Managing Customer Relationships*).

Manage your Books

The chapters in *Manage your Books* in this book are dedicated to general and analytic accounting. Following is a brief overview of the functions to introduce you to this Business Application.

Accounting is totally integrated into all of the company's functions, whether it is general, analytic, budgetary or auxiliary accounting. OpenERP's accounting function is double-entry and supports multiple company divisions and multiple companies, as well as multiple currencies and languages.

Accounting that is integrated throughout all of the company's processes greatly simplifies the work of entering accounting data, because most of the entries are generated automatically while other documents are being processed. You can avoid entering data twice in OpenERP, which is commonly a source of errors and delays.

So OpenERP's accounting is not just for financial reporting – it is also the anchor-point for many of the company's management processes. For example, if one of your accountants puts a customer on credit hold, then that will immediately block any other action related to that company's credit (such as sales or delivery).

OpenERP also provides integrated analytical accounting, which enables management by business activity or project and provides very detailed levels of analysis. You can control your operations based on business management needs, rather than on the charts of accounts that generally meet only statutory requirements.

OpenERP has added a flexible, easy**Invoicing** module allowing you to keep track of your documents and payments, even when you are not an accountant. This will allow smaller businesses to keep track of their payments without having to implement a complete accounting system.

Keep track of your Cash Moves by using the new OpenERP Cash Box.

Lead & Inspire your People

OpenERP's Human Resources Management Business Application provides functionality such as:

- Manage your Employees, Contracts & Staff Performance,
- Talent Acquisition,
- Keep track of Holidays and Sickness Leaves,
- Manage the Evaluation Process,
- Keep track of Attendances & Timesheets,
- Track Expenses.

Most of these functions are provided from optional modules whose name starts with**hr_** rather than the core **hr** module, but they are all loaded into the main ***Human Resources*** menu.

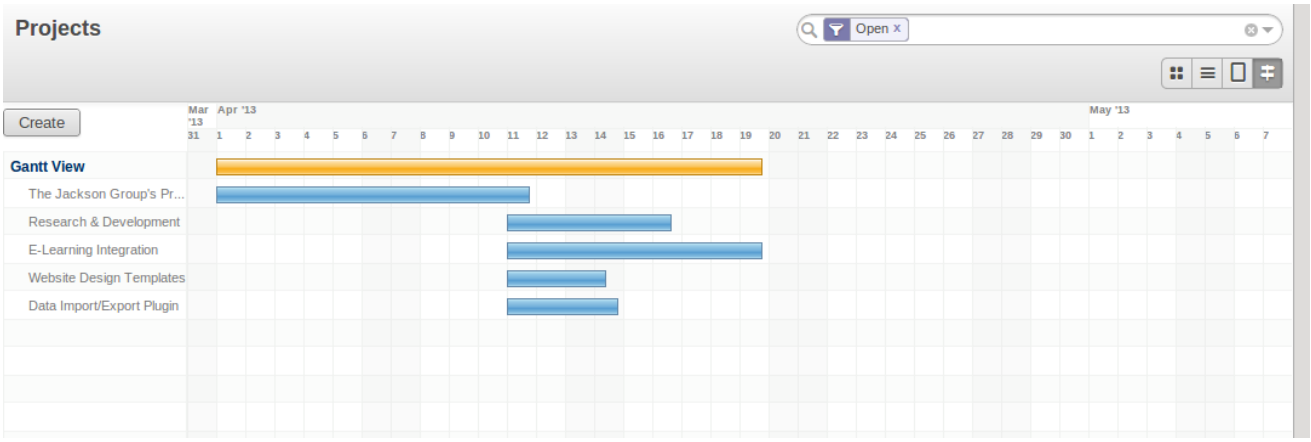
The different issues are handled in detail in the fourth part of this book*Effective Management of Operations*, dedicated to internal organization and to the management of a services business.

Drive your Projects

OpenERP's project management tools enable you to define tasks and specify requirements for those tasks, efficient allocation of resources to the requirements, project planning, scheduling and automatic

communication with partners.

All projects are hierarchically structured. You can review all of the projects from the menu***Project*** ▸ ***Projects***. Then select ***Gantt view*** to obtain a graphical representation of the project.



Project Planning

You can run projects related to Services or Support, Production or Development – it is a universal module for all enterprise needs.

Project management is described in *Drive your Projects*.

Driving your Sales

The ***Sales*** menu gives you roughly the same functionality as the ***Purchases*** menu – the ability to create new orders and to review the existing orders in their various states – but there are important differences in the workflows.

Confirmation of an order triggers the delivery of goods, and invoicing timing is defined by a setting in each individual order.

Delivery charges can be managed using a grid of tariffs for different carriers.

Driving your Purchases

Purchases enables you to track your suppliers' price quotations and convert them into Purchase Orders as you require. OpenERP has several methods of monitoring invoices and tracking the receipt of ordered goods.

You can handle partial deliveries in OpenERP, so you can keep track of items that are still to be delivered on your orders, and you can issue reminders automatically.

OpenERP's replenishment management rules enable the system to generate draft purchase orders automatically, or you can configure it to run a lean process, driven entirely by current production needs.

You can also manage purchase requisitions to keep track of quotations sent to a multitude of suppliers.

Organise your Warehouse

The various sub-menus under ***Warehouse*** together provide operations you need to manage stock. You can:

- define your warehouses and structure them around locations you choose,
- manage inventory rotation and stock levels,
- execute packing orders generated by the system,
- execute deliveries with delivery notes and calculate delivery charges,
- manage lots and serial numbers for traceability,
- calculate theoretical stock levels and automate stock valuation,
- create rules for automatic stock replenishment.

Packing orders and deliveries are usually defined automatically by calculating requirements based on sales. Stores staff use picking lists generated by OpenERP, produced automatically in order of priority.

Stock management is, like accounting, double-entry. So stocks do not appear and vanish magically within a warehouse, they just get moved from place to place. And, just like accounting, such a double-entry system gives you big advantages when you come to audit stock because each missing item has a counterpart somewhere.

Most stock management software is limited to generating lists of products in warehouses. Because of its double-entry system, OpenERP automatically manages customer and suppliers stocks as well, which has many advantages: complete traceability from supplier to customer, management of consigned stock, and analysis of counterpart stock moves.

Furthermore, just like accounts, stock locations are hierarchical, so you can carry out analyses at various levels of detail.

Get Manufacturing Done

OpenERP's production management capabilities enable companies to plan, automate and track manufacturing and product assembly. OpenERP supports multi-level bills of materials and lets you substitute sub-assemblies dynamically, at the time of sales ordering. You can create virtual sub-assemblies for re-use on several products with phantom bills of materials.

Bemerkung - BOMs, Routing, Workcenters

These documents describe the materials that make up a larger assembly. They are commonly called Bills of Materials or BOMs.

They are linked to routings which list the operations needed to carry out the manufacturing or assembly of the product.

Each operation is carried out at a workcenter, which can be a machine or a person.

Production orders based on your company's requirements are scheduled automatically by the system, but you can also run the schedulers manually whenever you want. Orders are worked out by calculating the requirements from sales, through bills of materials, taking current inventory into account. The production schedule is also generated from the various lead times defined throughout the system, using the same route.

The demonstration data contain a list of products and raw materials with various classifications and

ranges. You can test the system using this data.

Share your Knowledge through Efficient Document Management and Being Mobile

OpenERP integrates a complete document management system that not only carries out the functions of a standard DMS, but also integrates with all of its system-generated documents such as Invoices and Quotations. Moreover, it it keeps all of this synchronized. You can define your own directory structure and tell OpenERP to automatically store documents such as Invoices in the DMS.

OpenERP provides an FTP Interface for the Document Management System. You will not only be able to access documents from OpenERP, but you can also use a regular file system with the FTP client. FTP is just a way of getting access to files without needing to use an OpenERP client, to allow you to access files from anywhere. You can also add documents to be stored in OpenERP directly through the FTP system in the corresponding OpenERP directory. These documents will automatically be accessible from the form concerned in OpenERP.

The Knowledge system is also well-integrated with e-mail clients such as Thunderbird and Outlook. It also allows you to sync your calendars (CalDAV).

Measure your Business Performance

To measure your business performance OpenERP, provides two interesting features:

- Dashboards
- Statistical Reports

On a single page, Dashboards give you an overview of all the information that is important to you. In OpenERP, each application has its own dashboard which opens by default when you select the specific application. For example, Administration Dashboard will open when you click the ***Administration*** menu.

Bemerkung - Dashboards

Unlike most other ERP systems and classic statistic-based systems, OpenERP can provide dashboards for all system users, and not just managers and accountants.

Each user can have his own dashboard, adapted to his needs, enabling him to manage his own work effectively. For example, a developer using the ***Project Dashboard*** can see information such as a list of open tasks, tasks delegated to him and an analysis of the progress of the relevant projects.

Dashboards are dynamic, letting you navigate easily around the entire information base. Using the icons above a graph, for example, you can filter the data or zoom into the graph. You can click any element of the list to get detailed statistics on the selected element.

Dashboards can be customized to fit the needs of each user and each company.

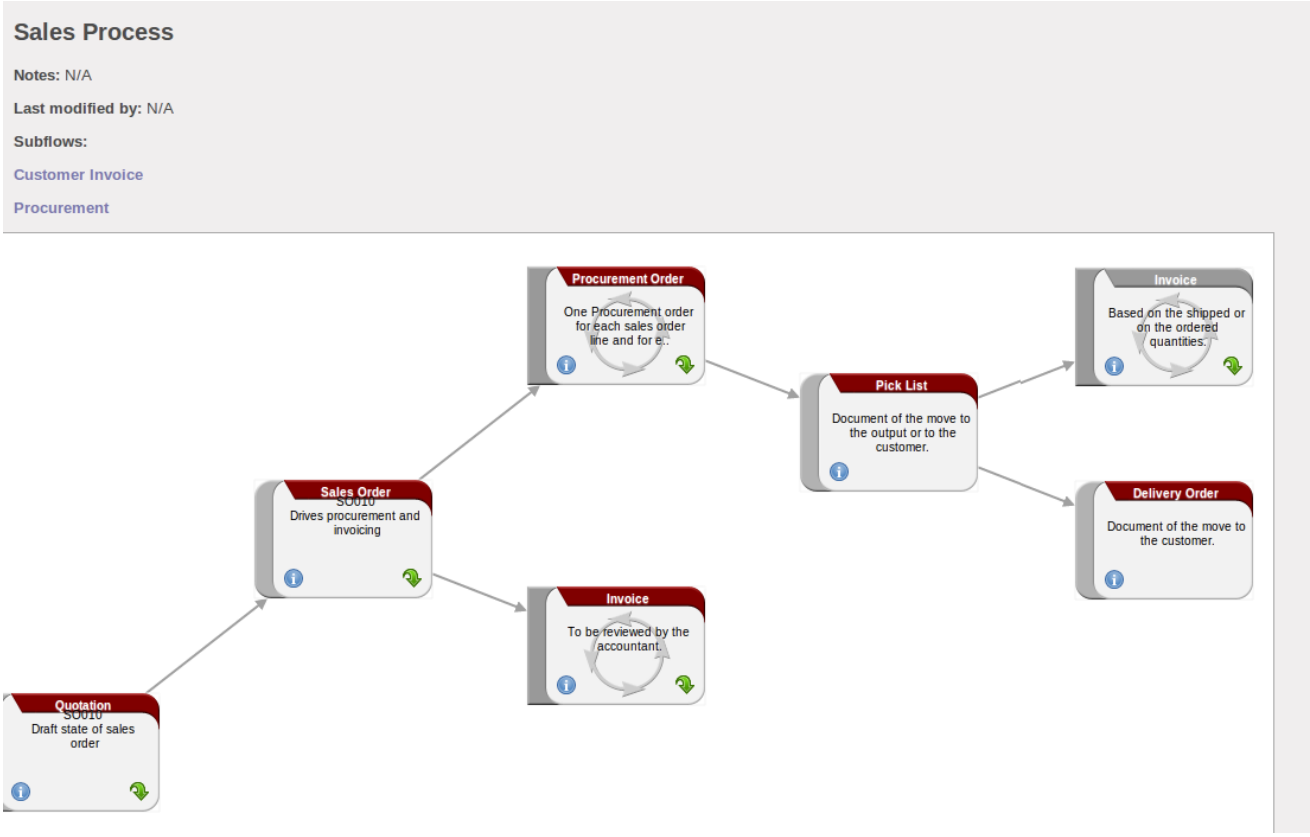
Bemerkung - Creating or Customizing Dashboards

OpenERP contains a Dashboard Editor. Create your own dashboard to fit your specific needs in only a few clicks. Go to the ***Administration*** ▸ ***Customization*** ▸ ***Reporting*** ▸ ***Dashboard****Definition* menu to define your own dashboard.

The Statistical Analysis is one of the crucial thing for decision making process in any business. OpenERP provides Statistical Reports for each application. For example, you can access the statistical analysis of Sales-related information from the menu ***Sales*** ▸ ***Reporting*** ▸ ***Sales Analysis*** You can search and group the data using this Statistical Report.

Track your Process Flows

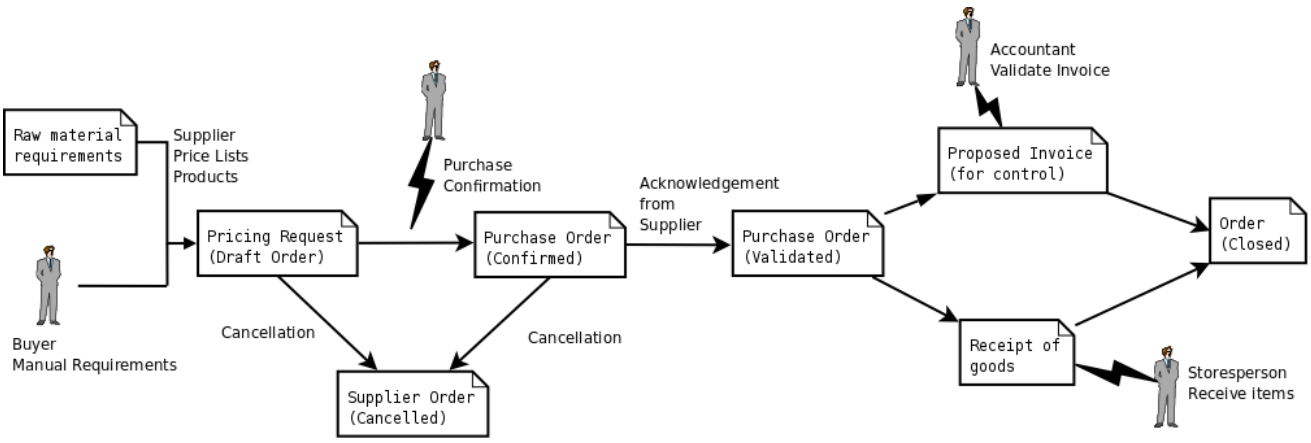
Many documents have a workflow of their own, and also take part in cross-functional processes. Take a document that could be expected to have a workflow, such as a Sales Order, and then click the *?* button above its form to see the full process.



Process for a Sales Order

You can see where a particular document is in its process, if you have selected a single document, by the solid bar on one of the process nodes. You also link to documents and menus for each of the stages.

There is a clear distinction between a cross-functional process and the detailed document workflow that is shown in client from a debug mode.



flow for a Purchase Order

Alongside the document management system, the process visualization features make OpenERP far better for documentation than similar systems.

Need More?

You have been guided through a brisk, brief overview of many of the main functional areas of OpenERP. Some of these – a large proportion of the core modules – are treated in more detail in the following chapters.

You can use the menu ***Settings*** ▸ ***Modules*** ▸ ***Modules*** to find the remaining modules that have been loaded into your installation but not yet installed in your database. Some modules have only minor side-effects to OpenERP (such as **google_docs**), some have quite extensive effects (such as the various charts of accounts), and some make fundamental additions.

But there are now more than hundred modules available. You can install them according to your needs.

A brief description is available for each module, but the most thorough way of understanding their functionality is to install one and try it. So, pausing only to prepare another test database to try it out on, just download and install the modules that appear interesting.

Tips & Tricks

Overview of Shortcut Keys

- Shortcuts in a relation field

Shortcut Key	What does it do?
F1	Add new Field/Line on the fly
F2	Look up information
F3	Zoom on current field

- Shortcuts in text entries

Shortcut Key	What does it do?
Ctrl+C	Copy selected text
Ctrl+V	Paste selected text
Ctrl+X	Cut selected text
Enter	Auto-complete text field
Shift+Tab	Previous editable widget
Tab	Next editable widget

Filters

The Advanced Search View is a new feature of OpenERP v7 which provides a very user-friendly filtering mechanism for the end user to easily look up desired records from the list.

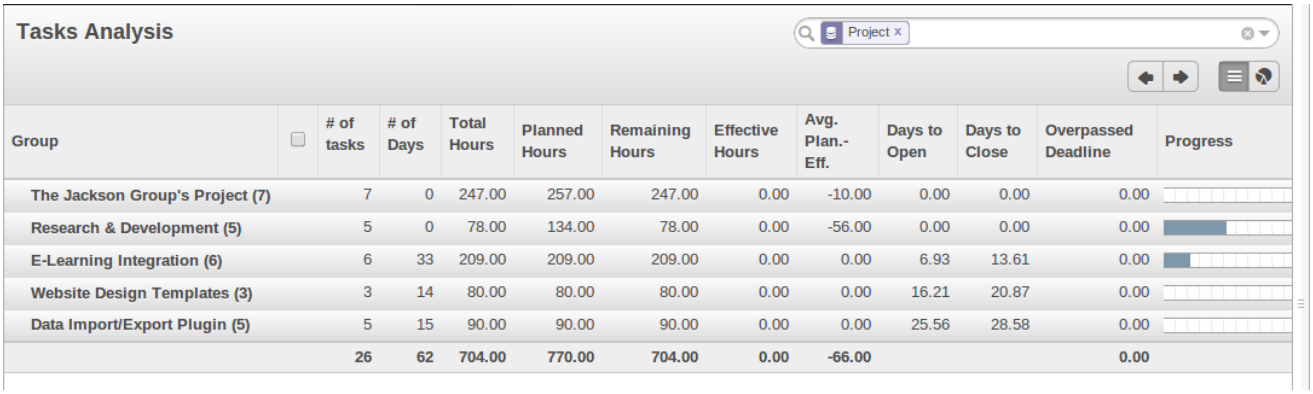
The perfect example of an advanced search view is the Statistical Report of OpenERP. Such a report

shows the statistical summary with filtered results to the end user.

Usually an Advanced Search is composed of three elements, the Filter buttons at the top, the Extended Filters, and the Group by option. These filters are dynamic, so according to filters you apply, extra columns may be added to the view.

You can also easily combine filters; an arrow will be displayed and you will get a structure according to the order in which you clicked the Filter buttons.

Let's show an example. The statistical report for project tasks isTask Analysis which can be displayed using the menu *Reporting* ▸ *Project* ▸ *Tasks Analysis* when you have installed theProject Management module.



Tasks Analysis

Project ×

Group	# of tasks	# of Days	Total Hours	Planned Hours	Remaining Hours	Effective Hours	Avg. Plan.-Eff.	Days to Open	Days to Close	Overpassed Deadline	Progress
The Jackson Group's Project (7)	7	0	247.00	257.00	247.00	0.00	-10.00	0.00	0.00	0.00	
Research & Development (5)	5	0	78.00	134.00	78.00	0.00	-56.00	0.00	0.00	0.00	
E-Learning Integration (6)	6	33	209.00	209.00	209.00	0.00	0.00	6.93	13.61	0.00	
Website Design Templates (3)	3	14	80.00	80.00	80.00	0.00	0.00	16.21	20.87	0.00	
Data Import/Export Plugin (5)	5	15	90.00	90.00	90.00	0.00	0.00	25.56	28.58	0.00	
	26	**62**	**704.00**	**770.00**	**704.00**	**0.00**	**-66.00**			**0.00**	

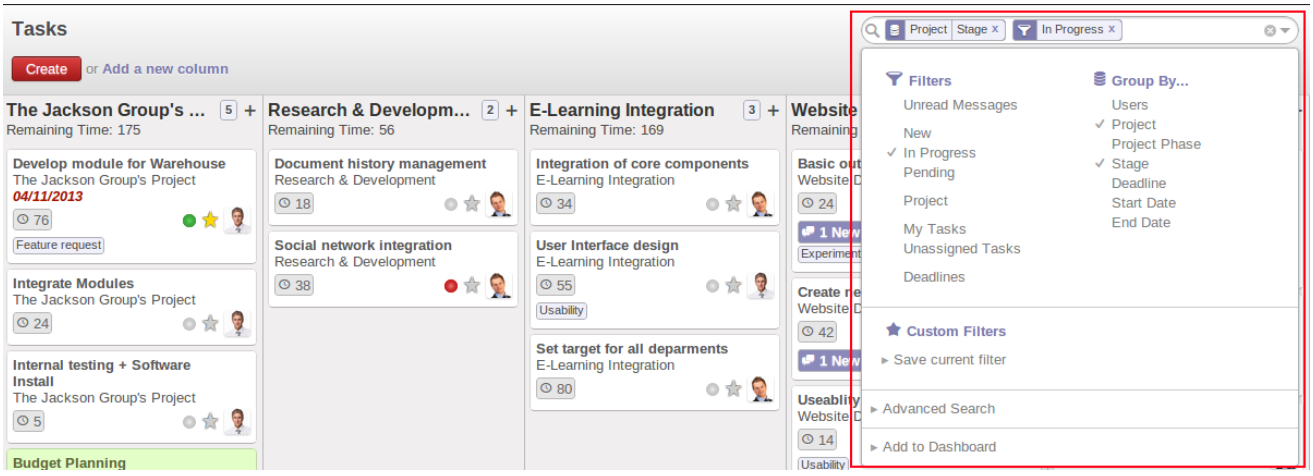
Task Analysis

You can see the Advanced Search View at the top right area.

You can filter the information of a task according to the Group by features.

Click, for instance, the Project in Group by from the filter, and then clickStage to analyse your tasks by project and then by stages.

This Advanced Search View can also be attached to anyKanban or List View of an object and hence increase the search facility when a user looks up the record in list view.



Search the Tasks which are `In Progress ` with Group by Project and State

How does it apply to your Business?

How does it apply to your Business?

> *Now that you have discovered some of the many possibilities of OpenERP from a tour of the demonstration database, you will develop a real case. An empty database provides the starting point for testing a classic workflow from product sales to purchase, completing your guided tour and your getting familiar with OpenERP.*

A database loaded with demonstration data is very useful to understand OpenERP's general capabilities. But to explore OpenERP through a lens of your own company's needs, you should start with an empty database. You will work in this chapter on a minimal database containing no demonstration data, so that there is no confusion about what you created. You will keep the database you have created, to allow you to build on it throughout the rest of this book if you want to.

You will develop a real case through the following phases:

1. Specify a real case;
2. Describe the functional needs;
3. Configure the system with the essential modules;
4. Carry out the necessary data loading;
5. Test the system with your database.

The case is deliberately simple to provide you with a foundation for the more complex situations you might have to handle in your company. Throughout this chapter, we assume that you access OpenERP through its web interface. And it is also assumed (as in the rest of this book) that you are using the latest download of OpenERP version 7, the stable production version at the time of writing (not the trunk version, which is likely to have new and potentially unstable features).

Business Example

In this example, you will configure a system that enables you to:

- buy products from a supplier,
- stock the products in a warehouse,
- sell these products to a customer.

The system should support all aspects of invoicing, payments to suppliers and receipts from customers.

Basic Settings

For this business case, you will have to model:

- the suppliers and a supplier category,
- the customers and a customer category,
- some products and a product category,
- an inventory,
- a purchase order,
- a sales order,
- invoices,
- payments.

To test the system, you will need at least one supplier, one customer, one product, a warehouse, a minimal chart of accounts and a bank account.

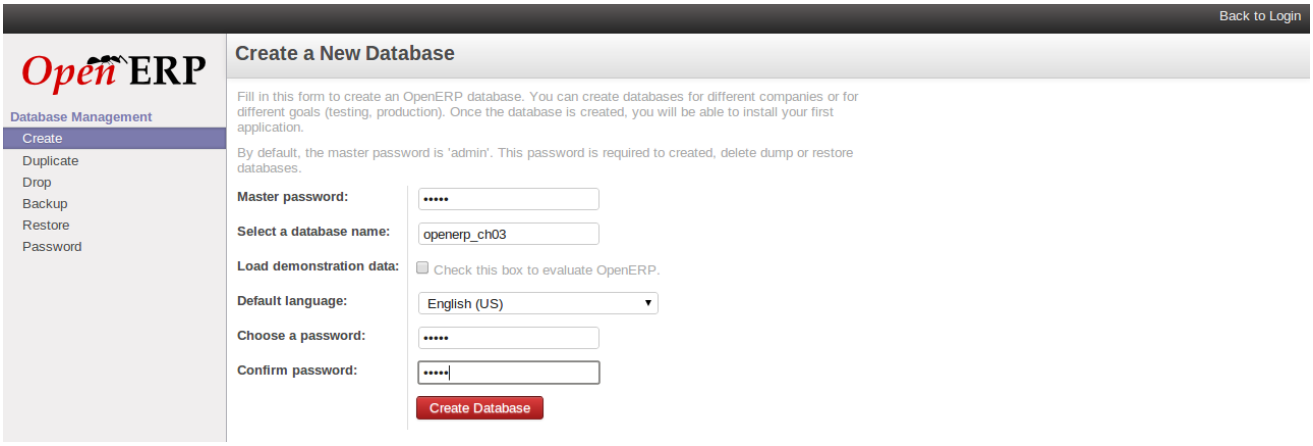
Get your Database Up and Running without Demo Data

Use the technique outlined in *Database Creation* to create a new database, **openerp_ch03** . This database will be free of data and contain the least possible amount of functionality as a starting point. You will need to know your super administrator password for this – or you will have to find somebody who does have it to create this seed database. You will not be able to use the **openerp_ch01** or **openerp_ch02** databases that you might have created so far in this book because they both contain demonstration data.

Start the database creation process from the ***Welcome*** page by clicking ***Manage Databases*** and then completing the following fields on the ***Create Database*** form, as shown in *Creating a blank database*:

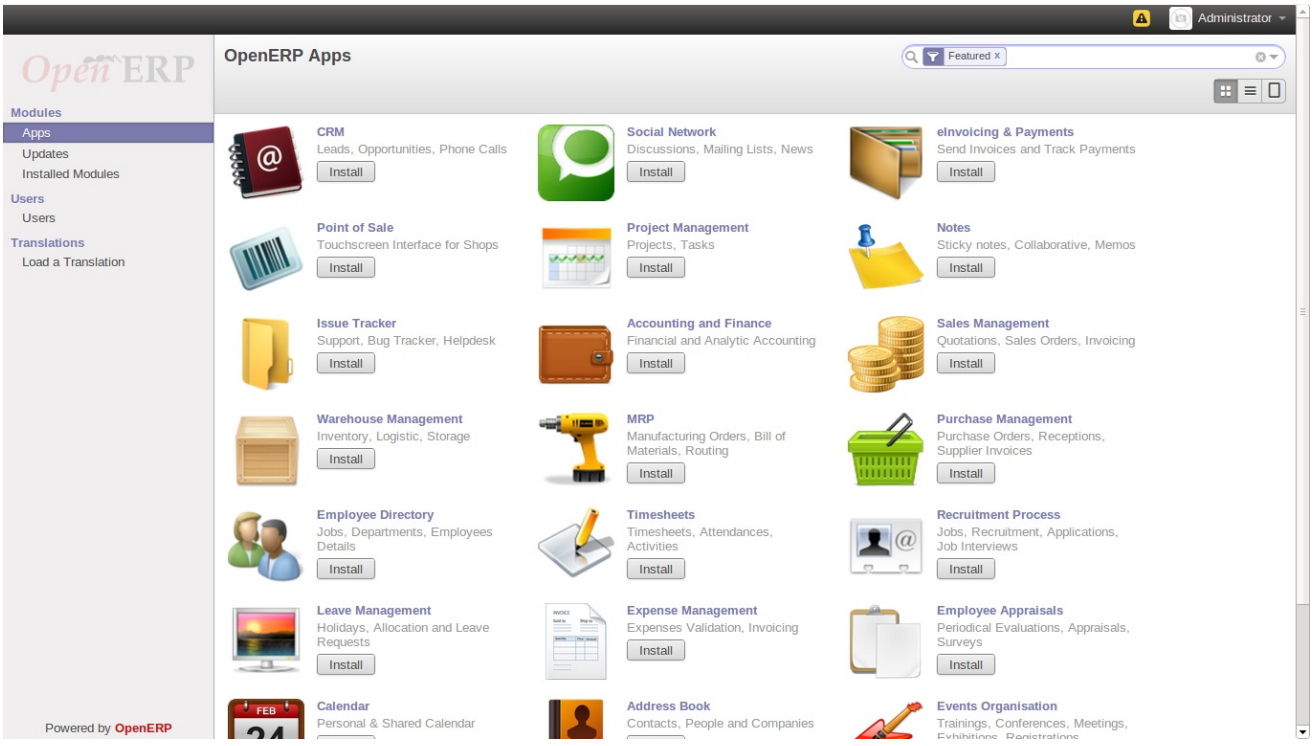
- ***Super admin password***: by default it is **admin** , if you or your system administrator have not changed it,

- ***New database name*** : **openerp_ch03** ,
- ***Load Demonstration data*** checkbox: **not checked** (this step is very important, but catches out many people),
- ***Default Language*** : **English (US)** ,
- ***Administrator password*** : **admin** (because it is the easiest to remember at this stage, but obviously completely insecure),
- ***Confirm password*** : **admin** .



Creating a blank database

Then click ***Create Database*** to create the database and move to the Application screen*Setting up a blank database - first screen*.



Setting up a blank database - first screen

You can have the screen as shown in above screenshot*Setting up a blank database - first screen*.

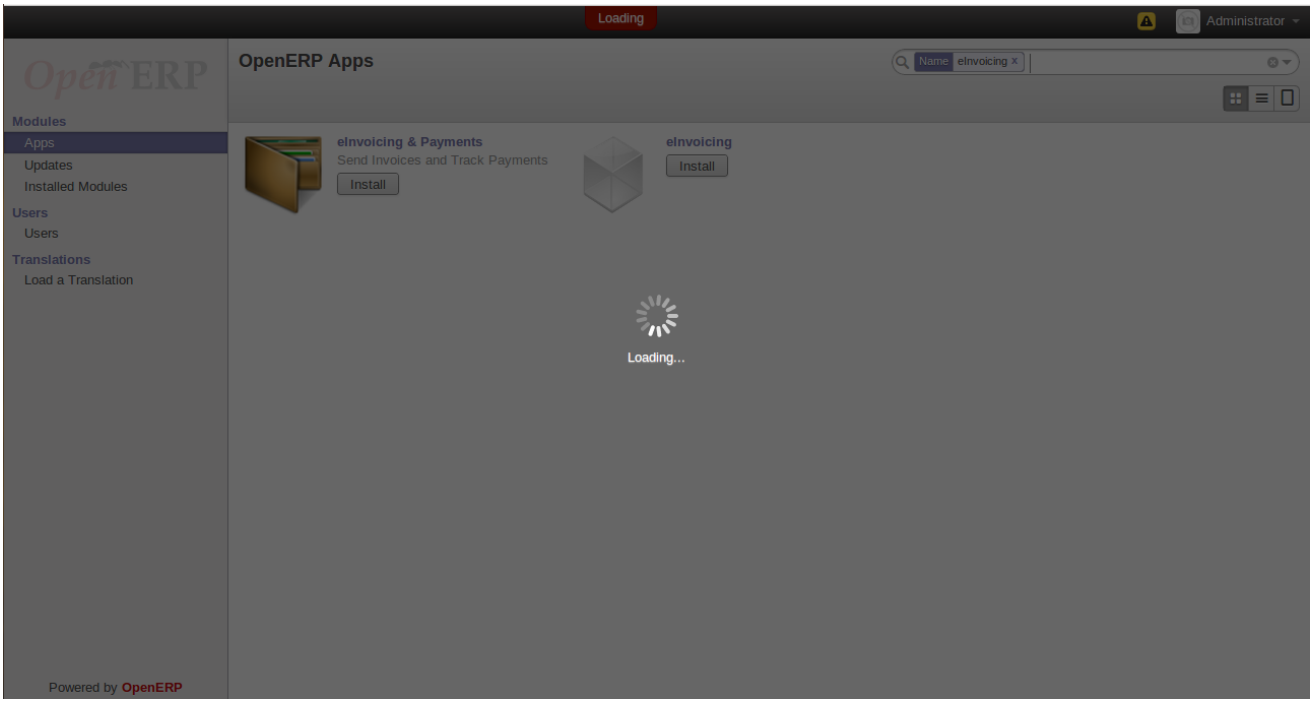
Fit your Needs

Functional needs can be provided by core modules from OpenERP. You just have to decide which functionality you want in your system. Click Install button of the corresponding application in the*At the time of Installation*.

For this instance, we need the following applications:

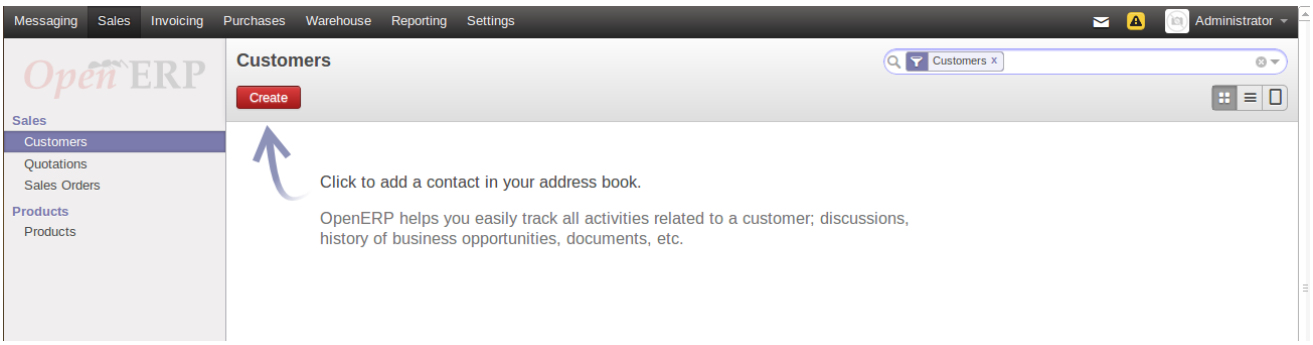
- Accounting & Finance (the **account** module),
- Warehouse Management (the **stock** module),
- Purchase Management (the **purchase** module),
- Sales Management (the **sale** module).

To get OpenERP to install these business applications,screens should look as follows:



At the time of Installation

Skip the step that asks you to configure your Accounting Chart. OpenERP will now display the opening screen with all selected business applications installed.



Database with all required functionality for this example

Database Setup

You will create all the elements in the database that you need to carry out the use case. These are specified in the functional requirements.

Configuring Accounts

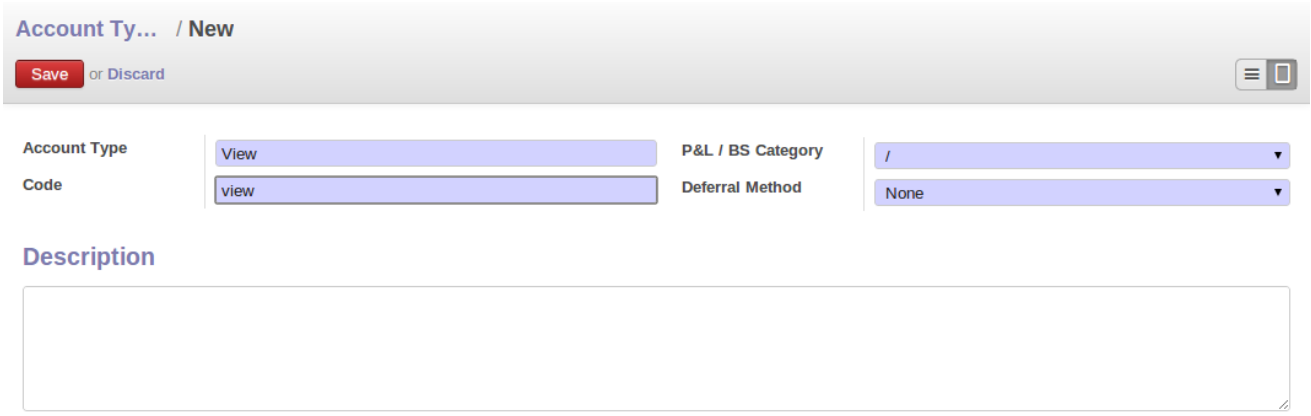
You need to start off with a minimal set of accounts, and to do that you will need a couple of account types. You can structure your accounts into a chart at any time (and, in fact, you can structure them into several additional charts at the same time as you will see in the chapter *Configuring Accounts from A to Z*), so you do not need to be concerned unduly about structure.

Account Types

Create account types using ***Accounting*** ▸ ***Configuration*** ▸ ***Accounts*** ▸ ***Account** Types* and then clicking the ***Create*** button. You will need the following four types, the first of which is shown in figure *New Account Type*.

Defining Account Types

Acc. Type Name	Code	P&L / BS Category	Deferral Method
View	view	/	None
Income	income	Profit & Loss (Income Accounts)	Unreconciled
Expense	expense	Profit & Loss (Expense Accounts)	Unreconciled
Cash	cash	Balance Sheet (Assets Accounts)	Balance



New Account Type

Accounts

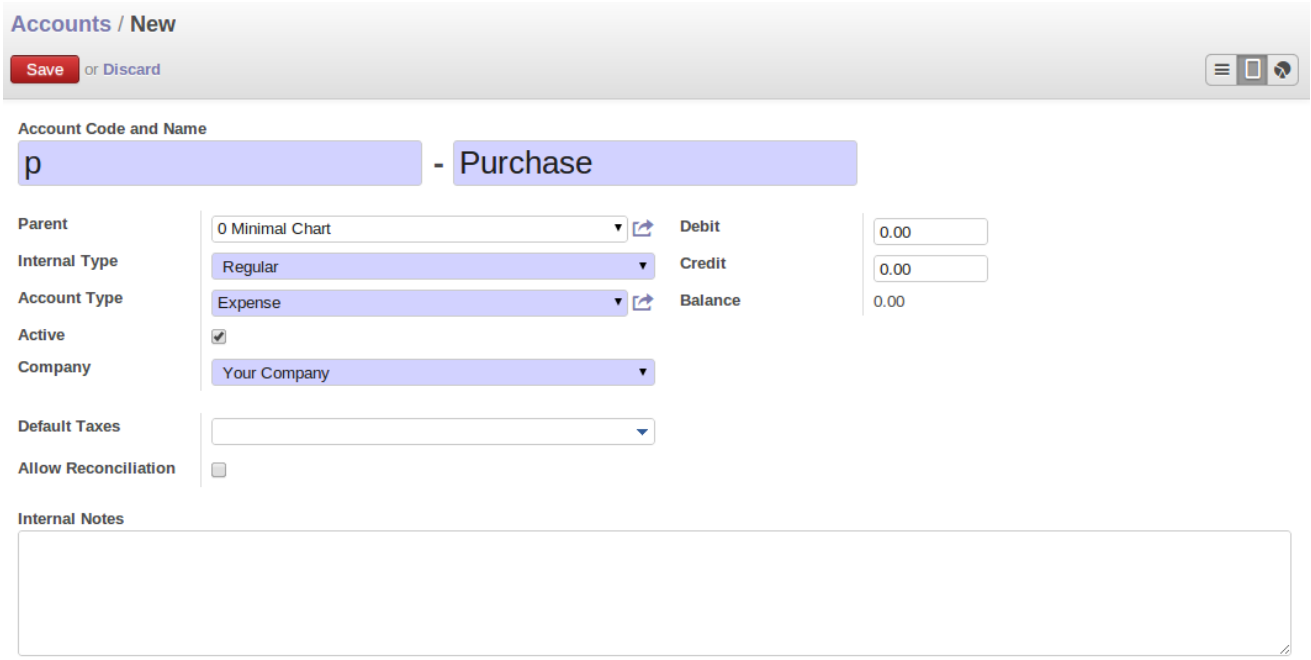
Create accounts using ***Accounting*** ▸ ***Configuration*** ▸ ***Accounts*** ▸ ***Accounts*** and then clicking the ***Create*** button.

You need accounts to handle the purchase and sales orders that have not yet been paid, two more for the receipt and shipping of goods, and one for the payment and receipt of funds. And one 'organizing' account that is just a view of the other five. So you will need the following six accounts, one of which is shown in *New Account*.

Defining Accounts

Name	Code	Internal Type	Parent	Account Type	Reconcile
Minimal Chart	0	View		View	unchecked
Payable	AP	Payable	0 Minimal Chart	Payable	checked

Name	Code	Internal Type	Parent	Account Type	Reconcile
Receivable	AR	Receivable	0 Minimal Chart	Receivable	checked
Cash	C	Liquidity	0 Minimal Chart	Cash	unchecked
Purchases	P	Regular	0 Minimal Chart	Expense	unchecked
Sales	S	Regular	0 Minimal Chart	Income	unchecked



New Account

The ***Account Type*** entry is taken from the list of types that you just created. Although it looks a bit like a text box, it does not behave in quite the same way. A single **Del** or **Backspace** keystroke is all you need to delete the whole text, and when you type the name (or part of the name), you still need to associate that text with the entry by clicking the ***Search More***.

Properties

You now define some default properties, so that you do not have to think about which account is used for which transaction every time you do something. The main new properties are the four that associate accounts payable and receivable to partners, and expenses and income to product categories.

Create properties using ***Settings*** ▸ ***Technical*** ▸ ***Parameters*** ▸ ***Configuration Parameters*** and then clicking the ***create*** button. You may have **Technical rights** to be able to access this menu.

Defining Properties

Name	Field	Type	Value
property_account_payable	Account Payable	Many2One	(account.account) AP Payable
property_account_receivable	Account Receivable	Many2One	(account.account) AR Receivable
property_account_expense_categ	Expense Account	Many2One	(account.account) P Purchases
property_account_income_categ	Income Account	Many2One	(account.account) S Sales

Tipp - Mistakes in configuring accounts and properties

It is easy to make mistakes in configuring accounts and their properties, but the consequences are not immediately obvious. You will mostly discover mistakes when trying to make a Purchase or Sale Order

(see later, for example, *Purchase Order*), where the accounts are required fields or, if you are diligent, when you set up Partners.

If you configure them correctly at this stage, then fields will be completed automatically and you will never know a thing. If you do not configure all this correctly, then you will not be able to save the order form until you have corrected the problem or until you manually set the accounts.

Since this configuration is quite tedious, you would do best by finding a certified Chart of Accounts that has already been set up to meet your needs, if you can find one.

Configuring Journals

You will also need to configure some journals, which are used to record the transactions from one account to another when invoices are raised and then paid. Create journals from the menu ***Accounting*** ▸ ***Configuration*** ▸ ***Journals*** ▸ ***Journals*** and then click the ***Create*** button.

Defining Journals

Journal Name	Code	Type	Entry Sequence	Default Debit Account	Default Credit Account
Purchase Journal	PUJ	Purchase	Purchase Journal	P Purchases	P Purchases
Sale Journal	SAJ	Sale	Account Default Sales Journal	S Sales	S Sales
Bank Journal	BNK	Cash	Account Journal	C Cash	C Cash

Tipp - Mistakes in configuring journals

It is easy to make mistakes in configuring the journals, too, and the consequences are also not immediately obvious. You will mostly discover mistakes when creating an invoice (which happens at different points in the process, depending on your configuration). In this example, validating a Purchase Order creates a draft invoice (see later, again for example, *Purchase Order*), where a journal is required.

As with accounts and properties, if you configure them correctly at this stage, then the fields will be completed automatically and you will never know a thing. If you do not configure all this correctly, then there will be errors with the order form or corresponding draft invoice, until you have corrected the problem or until you manually set the journal.

Configuring the Main Company

In case you had chosen to ***Skip Configuration Wizards*** when you first created the database, you may configure your company information in the following manner. Start configuring your database by renaming the ***Main Company*** from its default of **Your Company** to the name of your own company or (in this case) another example company. When you print standard documents such as quotations, orders and invoices you will find this configuration information used in the document headers and footers.

To do this, click ***Sales*** ▸ ***Address Book*** ▸ ***Customers*** and search for only company there, which is **Your Company** . This gives you a read-only form view of the company, so make it editable by clicking the ***Edit*** button to the upper left of the form.

Tipp - Editable form in the web-client

When toggling from the list view to the form view of an item, you can generally click its name in the list

view to show a non-editable view. You can toggle between editable and non-editable once you are in form view.

Change the following:

- ***Name*** : **Ambitious Plumbing Enterprises** ,
- ***Add Contact*** : **George Turnbull** .

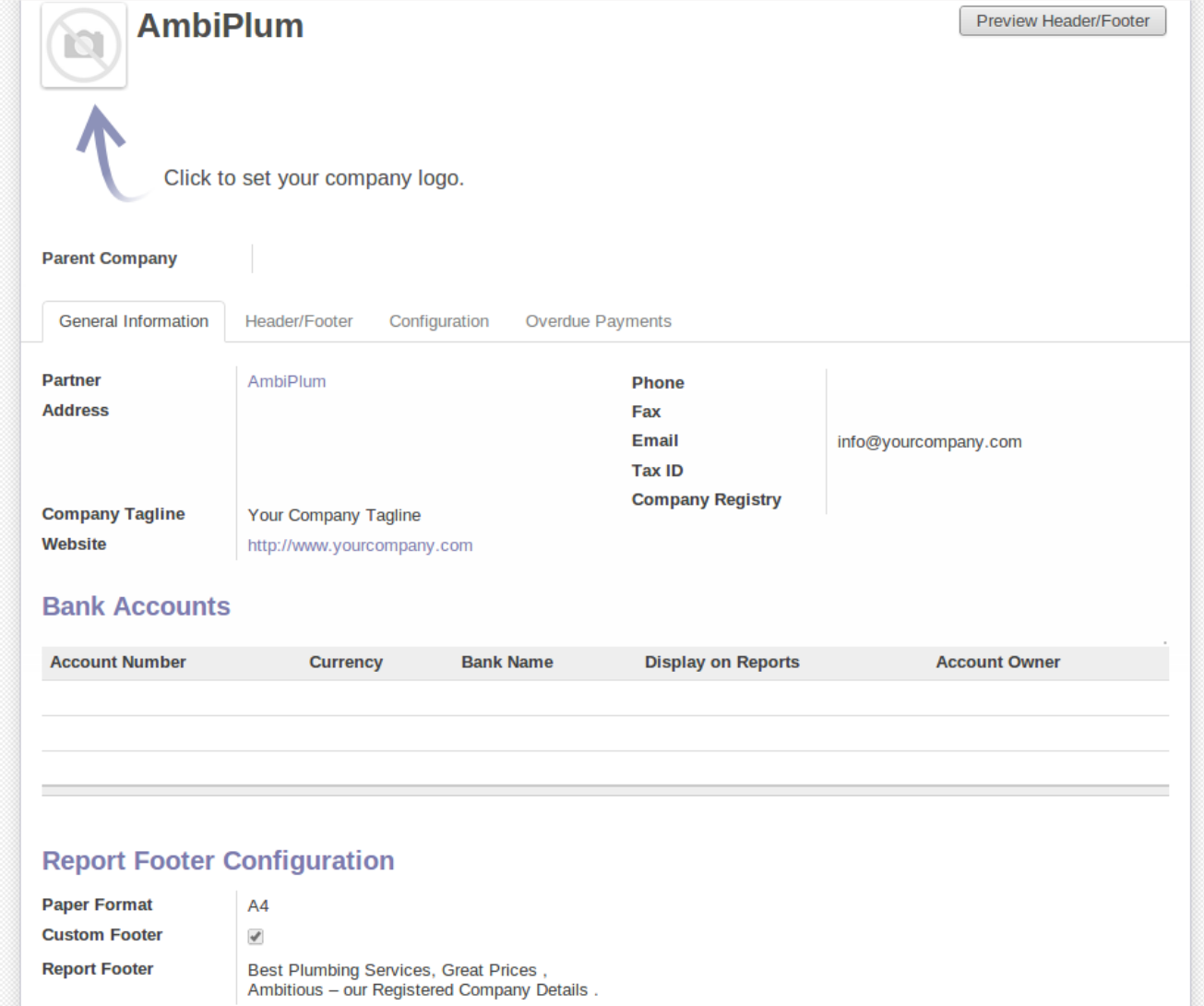
Before you save this, look at the partner's accounting setup by clicking the tab***Accounting***. The fields ***Account Receivable*** and ***Account Payable*** have account values in them that were taken from the account properties you just created. You do not have to accept those values: you can enter any suitable account you like at this stage, although OpenERP constrains the selection to ones that make accounting sense.

Back at the first tab, ***General***, change any other fields you like, such as the address and phone numbers, then ***Save***. This changes one Contact for the Partner, which is sufficient for the example.

From the ***MAIN MENU***, click ***Settings*** ▸ ***Companies*** ▸ ***Companies***and edit the only entry there:

- ***Company Name*** : **AmbiPlum** ,
- ***Partner*** : should already show**Ambitious Plumbing Enterprises** ,
- ***Custom Footer*** : **Ticked** ,
- ***Report Footer*** : **Best Plumbing Services, Great Prices , Ambitious – our Registered Company Details** .

Figure *Changing company details* shows the effect of this. You can also change various other company-wide parameters for reports and scheduling in the other tabs, and you can upload a company logo of a specific size for the reports. Click ***Save*** to store this.



Changing company details

You can leave the currency at its default setting of**EUR** Or you can change it in this Company and the two default Pricelists (***Sales*** ▸ ***Configuration*** ▸ ***Pricelists*** ▸ ***Pricelists***) if you feel compelled to do that.

Bemerkung - Currency

The examples in this book are in USD and EUR. You, the reader, could use your home currency (perhaps CAD, CNY, GBP, or Rs) in their place.

Creating Partner Categories, Partners and their Contacts

You will now create a suppliers category and a customers category. Partner categories are useful for organizing groups of partners but have no special behavior that affects partners, so you can assign them as you like. Then you will define one supplier and one customer, with a contact for each.

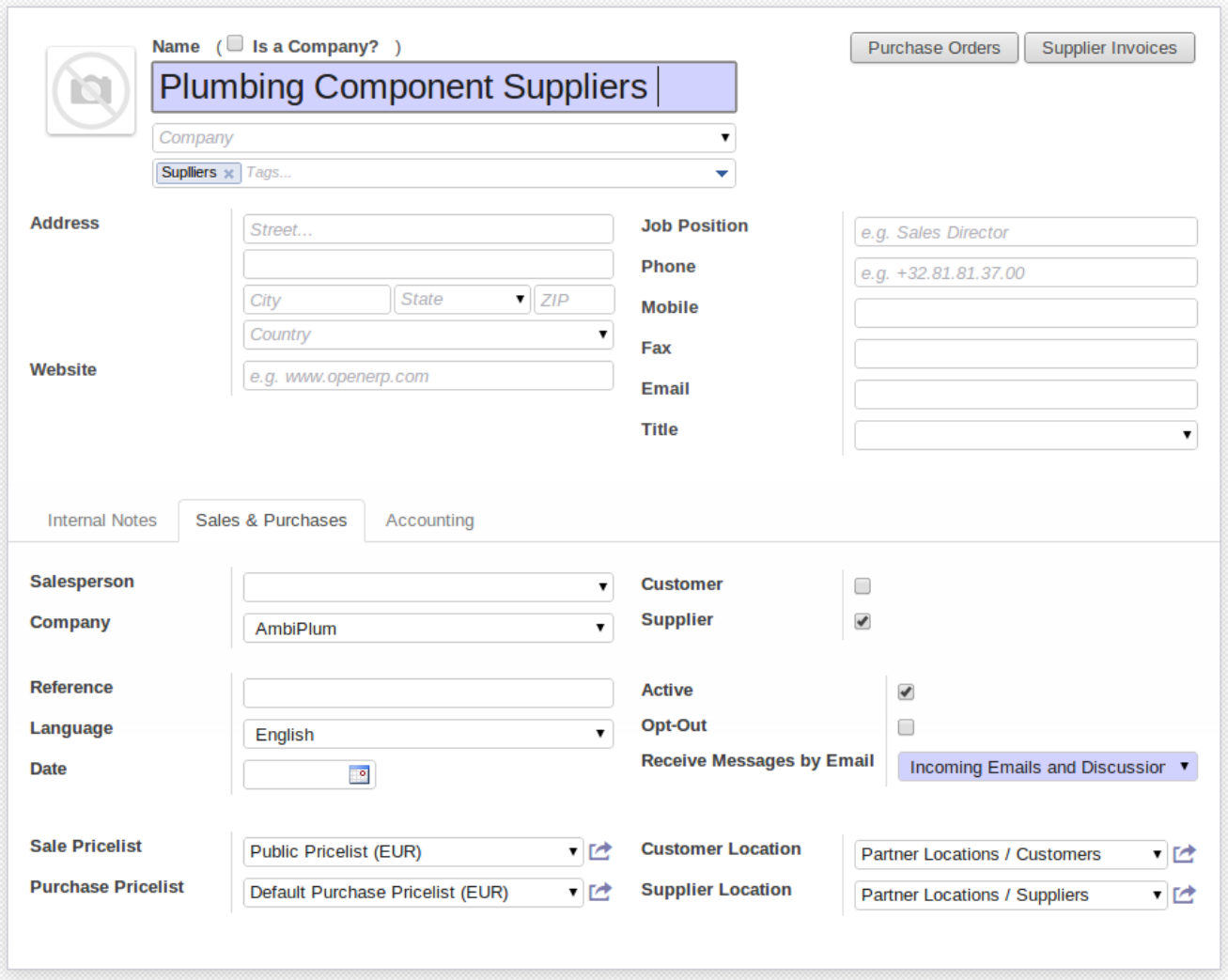
To do this, use the menu***Sales*** ▸ ***Configuration*** ▸ ***Address Book*** ▸ ***Partner Tags***and click *Create* to open a new form for defining *Partner Categories*. Define the two categories that follow by just entering their *Category Name* and saving them:

- **Suppliers** ,
- **Customers** .

Then create two partners from the menu ***Sales*** ▸ ***Sales*** ▸ ***Customers***. Click on the ***Create*** button to open a blank form and then add the following data for the first partner first:

- ***Name*** : **Plumbing Component Suppliers** ,
- ***Customer*** checkbox : **unchecked** ,
- ***Supplier*** checkbox : **checked** ,
- add **Suppliers** to the ***Tags*** field by selecting it from the selection list,
- then save the partner by clicking the ***Save*** button.

Figure *New Partner Form* shows the result.



New Partner Form

For the second partner, proceed just as you did for the first, with the following data:

- ***Name*** : **Smith and Offspring**,
- ***Customer*** checkbox : **checked**,
- ***Supplier*** checkbox : **unchecked**,
- add **Suppliers** in the ***Categories*** field,
- ***Save*** the form.

To check your work, you can go to the menu ***Sales*** ▸ ***Configuration*** ▸ ***Address Book*** ▸ ***Partner Tages*** and click on each category in turn to see the companies in the category.

Bemerkung - Multiple Partner Categories

If this partner was also a supplier, then you would add **Suppliers** to the categories as well, but there is no need to do so in this example. You can assign a partner to multiple categories at all levels of the hierarchy.

Creating Products and their Categories

Unlike partner categories and their assigned partners, product categories do have an effect on the products assigned to them – and a product may belong to only one category. Under the main menu link ***Warehouse*** or ***Sale***, select the menu ***Configuration*** ▸ ***Products*** ▸ ***Products Categories*** and click ***Create*** to get an empty form for defining a product category.

Enter **Radiators** in the ***Name*** field. You will see that other fields, specifically those in the ***Accounting Properties*** section, have been automatically filled in with values of accounts and journals. These are the values that will affect products – equivalent fields in a product will take on these values if they, too, are blank when their form is saved. Click ***Save***.

Bemerkung - Property Fields

Properties have a rather unusual behavior. They are defined by parameters in the menus in *Settings* ▸ *Technical* ▸ *Parameters* ▸ *Configuration Parameters*, and they update fields only when a form is saved, and only when the fields are empty at the time the form is saved. You can manually override any of these properties as you need.

Property fields are used all over the OpenERP system and particularly extensively in a multi- company environment. There, property fields in a partner form can be populated with different values depending on the user's company.

For example, the payment conditions for a partner could differ depending on the company from which it is addressed.

Bemerkung - UOM

UOM is an abbreviation for Unit of Measure. OpenERP manages multiple units of measure for each product: you can buy in tons and sell in kgs, for example. The conversion between each category is made automatically (so long as you have set up the conversion rate in the product form first).

Tipp - Managing Double Units of Measure

The whole management of stock can be carried out with double units of measure (UOM and UOS – for Unit of Sale). For example, an agro-food company can stock and sell ham by piece, but buy and value it by weight. There is no direct relationship between these two units, so a weighing operation has to be done.

This functionality is crucial in the agro-food industry, and can be equally important in fabrication, chemicals and many other industries.

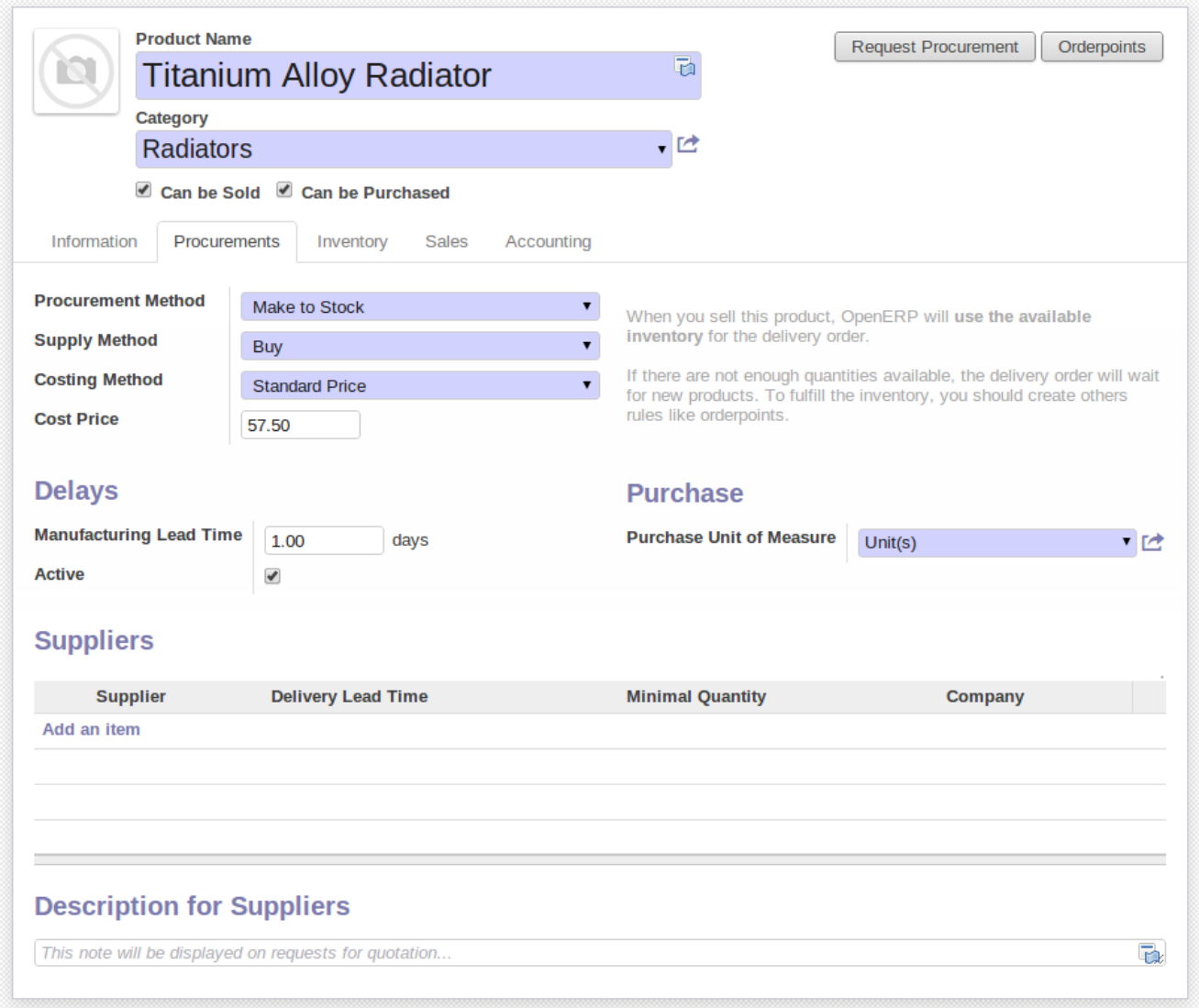
Now create a new product through the ***Warehouse*** or ***Sale*** menu:

1. Go to ***Product*** ▸ ***Products*** and click ***New***.
2. Create a product – type **Titanium Alloy Radiator** in the ***Name*** field.

3. ***Search*** for ***Category*** field to select the:guilabel:Radiators category.

4. The ***Product Type*** field should be assigned as**Stockable Product**. The fields ***Procurement Method***, ***Supply method***, ***Default Unit Of Measure***, and ***Purchase Unit Of Measure*** should also stay at their default values.

5. Enter **57.50** into the ***Cost Price*** field and **132.50** into the ***Sale Price*** field.



5. *Product Form*

6. Click the ***Accounting*** tab, then click ***Save*** and observe that ***Accounting Properties*** here remain empty. When product transactions occur, the Income and Expense accounts that you have just defined in the Product Category are used by the Product unless an account is specified here, directly in the product, to override that.

7. Once the product is saved, it changes to a non-editable state. If you had entered data incorrectly or left a required field blank, an error message would pop-up, the form would have stayed editable and you would need to click from tab to tab to find a field colored red that would have to be correctly filled in.

Stock Locations

Click ***Warehouse*** ▸ ***Inventory Control*** ▸ ***Location Structure*** to see the hierarchy of stock locations. These locations have been defined by the minimal default data loaded when the database was created. You will use this default structure in this example.

OpenERP has three predefined top-level location types ,**Physical Locations** and **Partner Locations** that act as their names suggest, and **Virtual Locations** that are used by OpenERP for its own purposes.

1. From the ***Main Menu*** click on ***Warehouse*** ▸ ***Configuration*** ▸ ▸ ***Locations***to reach a list view of the locations (not the tree view).

2. Click on the name of a location, such as**Physical Locations/Your Company** to open a descriptive form view. Each location has a ***Location Type*** and a ***Parent Location*** that defines the hierarchical structure. While you are here you should change the location's name to **Ambitious Plumbing Enterprises** , since it was named before you changed the company name.

3. From the ***Main Menu*** click ***Warehouse*** ▸ ***Configuration*** ▸ ***Warehouses***to view a list of warehouses. There is only the one at the moment, which should also be renamed from **Your Company** to **Ambitious Plumbing Enterprises** .

A Warehouse contains an input location, a stock location and an output location for sold products. You can associate a warehouse with a partner to give the warehouse an address. That does not have to be your own company (although it can be); you can easily specify another partner who may be holding stock on your behalf.

Bemerkung - Location Structure

Each warehouse is composed of three locations***Location Input***, ***Location Output***, and ***Location Stock***. Your available stock is given by the contents of the ***Location Stock*** and its child locations.

So the ***Location Input*** can be placed as a child of the***Location Stock***, which means that when ***Location Stock*** is interrogated for product quantities, it also takes account of the contents of the***Location Input***. ***Location Input*** could be used as a goods-in QC location. The***Location Output*** must never be placed as a child of ***Location Stock***, since items in ***Location Output***, which can be considered to be packed ready for customer shipment, should not be thought of as available for sale elsewhere.

Setting up a Chart of Accounts

You can set up a chart of accounts during the creation of a database, but for this exercise you will start with the minimal chart that you created (just a handful of required accounts without hierarchy, tax or subtotals).

A number of account charts have been predefined for OpenERP, some of which meet the needs of national authorities (the number of those created for OpenERP is growing as various contributors create and freely publish them). You can take one of those without changing it if it is suitable, or you can take anything as your starting point and design a complete chart of accounts to meet your exact needs, including accounts for inventory, asset depreciation, equity and taxation.

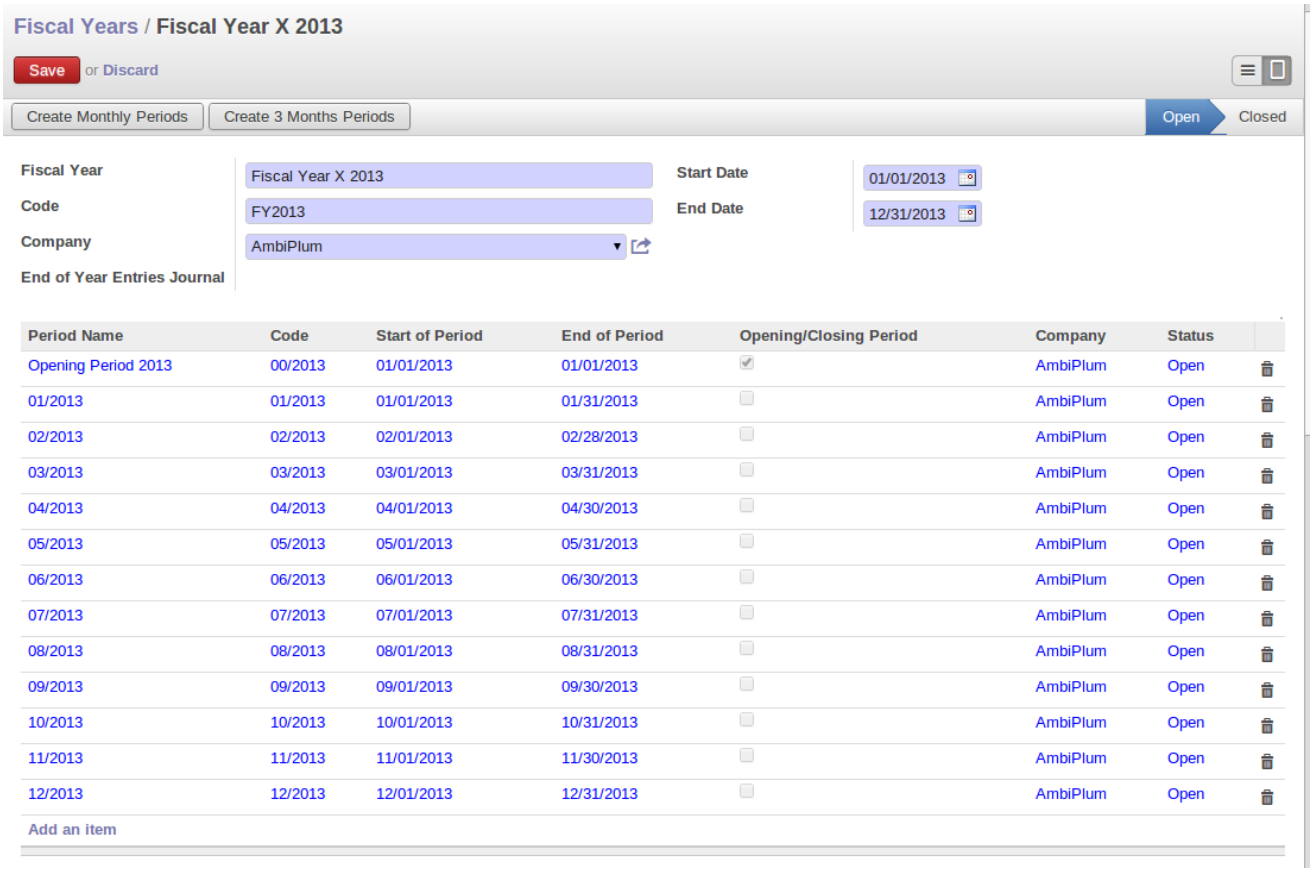
You can also run multiple charts of accounts in parallel – so you can put all of your transaction accounts into several charts, with different arrangements for taxation and depreciation, aggregated differently for various needs.

Before you can use any chart of accounts for anything, you need to specify a Fiscal Year. This defines the different time periods available for accounting transactions. You can create a Fiscal Year from ***Accounting*** ▸ ***Configuration*** ▸ ***Periods*** ▸ ***Fiscal Years*** Click on the ***Create*** button to open a blank form and then add the following data:

- ***Fiscal year*** : **Fiscal Year X 2013** ,

- ***Code*** : **FY2013** ,
- ***Start Date*** : **01/01/2013** ,
- ***End Date*** : **12/31/2013** ,
- Click on Create Monthly Periods Button.
- then save the Form by clicking the ***Save*** button.

Figure *Fiscal Year* shows the result.



Fiscal Year

Bemerkung - Fiscal year

In many countries, the fiscal year corresponds to a calendar year. That may not be the case in other countries. Start Date is a first date of your fiscal year andEnd Date is a last Date of your fiscal year. By clicking Create 3 Months Periods you can create a periods quarterly.

Click ***Accounting*** ▸ ***Charts*** ▸ ***Charts of Accounts*** to open a ***Chart of Accounts*** form where you define exactly what you want to see. Click ***Open Charts*** to accept the defaults and see a hierarchical structure of the accounts.

Make a Backup of the Database

If you know the super-administrator password, make a backup of your database using the procedure described in *Managing Databases*. Then restore it to a new database:**testing** .

This operation enables you to test the new configuration on**testing** so that you can be sure everything works as designed. Then if the tests are successful, you can make a new database from **openerp_ch03** , perhaps called **live** or **production**, for your real work.

From here on, connect to this new**testing** database logged in as **admin** if you can. If you have to make corrections, do that on **openerp_ch03** and copy it to a new **testing** database to continue checking it.

Or you can just continue working with the**openerp_ch03** database to get through this chapter. You can recreate **openerp_ch03** quite quickly if something goes wrong and you cannot recover from it but, again, you would need to know your super-administrator password for that.

Driving a Purchase / Sales Flow

To familiarize yourself with the system workflow, you will test a purchase-sale workflow in two phases.

The first consists of product purchase, which requires the following operations:

> 1. Place a purchase order with Plumbing Component Suppliers for 10 Titanium Alloy Radiators at a unit price of 56.00.
> 2. Receive these products at your Goods In.
> 3. Generate a purchase invoice.
> 4. Pay your supplier.

Following this, you will sell some of these products, using this sequence:

> 1. Receive a sales order for 6 Titanium Alloy Radiators from Smith and Sons, sold at a unit price of 130.00.
> 2. Dispatch the products.
> 3. Invoice the customer.
> 4. Receive the payment.

Purchase Order

To place a Purchase Order with your supplier, use the menu***Purchases*** ▸ ***Purchase*** ▸ ***Quotations***and click the **Create** button.

Complete the following field:

- ***Supplier*** : **Plumbing Component Suppliers** .

As you complete the***Supplier*** field, OpenERP automatically completes the***Pricelist*** field from information it takes out of the Partner record.

Enter the following information:

- ***Product*** : **Titanium Alloy Radiator** - type in part of this name then press the tab key to complete it, or click the ***Search More*** at the end of the s to bring a search box. (if product is previously configured)

When you have selected a product on the product line, OpenERP automatically completes the following fields from information it finds in the Product record:

- ***Product UOM***: the unit of measure for this product,
- ***Description*** : the detailed description of the product,
- ***Scheduled Date*** : based on the product lead time,
- ***Unit Price***: the unit price of the product,
- ***Analytic account***: if any account is specified then it will appear on the order line (it is not in this example),
- ***Taxes***: applicable taxes defined in the partner, if specified, otherwise in the product, if specified (there are not any in this example).

Bemerkung - Analytic account

You may have ticked and Apply Analytic accounting for purchases from ***Settings*** ▸ ***Purchases*** ▸ ***Purchase Order***

You can edit any of these fields to suit the requirements of the purchase order at the time of entry. Change the:

- ***Quantity*** : **10**,
- ***Unit Price*** to **56.00**.

Save the order line and close the ***Order Line*** window by clicking the ***Close*** button. You can then confirm the whole one-line order by clicking ***Save***, which makes the form non-editable.

It is now in a state of **Draft PO**, Confirm that by clicking Confirm Button which corresponds to an approval from a manager or from Accounts within your own company and moves the order into **Purchase Order** state. Send by Email, with the help of this button you can Request for Quotation and mean while your Draft PO moves in to **RFQ sent** state.

If you click the ***Incoming Shipments & Invoices*** tab you will see the delivery ***Destination*** is your own company's **Stock** location and Receive Invoice button show you the draft invoice was created from the order. It is not entirely obvious at this stage, but the invoice is in a draft state so it can be edited and, crucially, has no accounting impact yet: it is just ready for your accounting group to activate it.

Receiving Goods

After confirming the order, you would wait for the delivery of the products from your supplier. Typically this would be somebody in Stores, who would:

- 1) Open the menu ***Warehouse*** ▸ ***Receive/Deliver By Orders*** ▸ ***Incoming Shipments*** using the expand/collapse icon.

> ## Bemerkung - From the Purchase Order
>
> You could have clicked the ***Incoming Shipment*** Button to the top right of the Purchase Order form to reach the same screen, but this would confuse the purchasing role with the stores role. That Button is very useful during testing and training, however.

- 2) When the ***Incoming Shipments*** window appears, select the name of the entry in the list (**IN/00002**) to display the Packing List itself – you would usually do a search for the supplier name or order number in a list that was larger than this – then click ***Receive*** to indicate that you are receiving the whole quantity of 10 units.

At this point you have accepted 10 units into your company, in a location that you have already seen.

Using the menu ***Purchases*** ▸ ***Products*** ▸ ***Products*** you can find the product Titanium Alloy Radiators with Quantity On Hand and Incoming 10. From the product form click on Stock by Location from More button, you can see the Quantity On Hand and Incoming Stock of this product in various locations.

Tipp - Traceability in Double-entry

OpenERP operates a double-entry stock transfer scheme similar to double-entry accounting. Because of this you can carry out various analyses of stock levels in your warehouse, along with the corresponding levels in Partner Location at your Supplier. The double-entry system, analogous to that of accounting, enables you to keep track of stock movements quite easily, and to resolve any errors that occur.

Invoice Control

When you have received an invoice from your supplier (which would usually be sent to your Accounts department), go to the menu ***Accounting*** ▸ ***Suppliers*** ▸ ***Supplier Invoices*** to open a list of supplier invoices waiting for receipt. These invoices enable your Accounts Department to match the price and quantities ordered against the price and quantities on the supplier's invoice (and since it is not uncommon to receive an invoice showing details more favourable to the supplier than those agreed at the time of purchase, this is a useful function).

In this example, you created an invoice automatically when you confirmed the supplier's Purchase Order. That is because the ***Invoicing Control*** field on the order was set to **From Order** (the default option). Other options enable you to create invoices at the time of receiving goods or manually. The initial state of an invoice is **Draft** .

Now click the invoice for your order **PO00001** to display its contents. You can compare the goods that you have recorded there with the invoice received from your supplier. If there is a difference, it is possible to change the order lines to, for example, add a delivery charge. Click ***Validate*** to confirm the invoice and put it into the **Open** state.

Accounting entries are generated automatically once the invoice is validated. To see the effects on your chart of accounts, use the menu ***Accounting*** ▸ ***Charts*** ▸ ***Chart of Accounts***,then click ***Open Charts*** at the ***Chart of Accounts*** page to see that you have a debit of **560.00** in the **Purchases** account and a credit of **560.00 i**n the **Payable** account.

Paying the Supplier

Select the menu ***Accounting*** ▸ ***Suppliers*** ▸ ***Supplier Invoices*** and click on the ***Unpaid*** Filter from Search for a list of supplier invoices that have not yet been paid. Write the **PO00001** in search text box, itself to find the invoice. In practice, you would search for the invoice by order number or, more generally, for invoices nearing their payment date.

Click on ***Pay*** button in the supplier invoice form. It opens the ***Pay Invoice*** window with a description of the payment.

Supplier and **Date** comes automatically from invoice. You need to just enter the **Payment Method**. After

that, click on ***Pay*** button to post this entry.

Bemerkung - Payment of an Invoice

The method described here is for companies that do not use their accounting system to pay bills – just to record them. If you are using the **account** module with all its features, other, more efficient, methods let you manage payments, such as entering account statements, reconciling paperwork, using tools for preparing payments, interfacing with banks.

You can monitor the accounting impact of paying the invoice through the chart of accounts available from the menu ***Accounting*** ▸ ***Charts*** ▸ ***Chart of Accounts*** OpenERP automatically creates accounting entries from the payment, and can reconcile the payment to the invoice. You now have a new transaction that has debited the **Payable** account with **560.00** and credited the **Cash** account.

If you look in ***Accounting*** ▸ ***Journal Entries*** ▸ ***Journal Entries*** you will see both accounting transactions, one in each of the **Purchase** Journal and **Bank** Journal in **Draft** state.

From Sales Proposal to Sales Order

In OpenERP, sales proposals and sales orders are managed using documents that are based on the same common functionality as purchase orders, so you will recognize the following documents in general but see changes to their detail and to their workflows. To create a new sales proposal, use the menu ***Sales*** ▸ ***Sales*** ▸ ***Quotations*** and click on Create button which creates a new order in a state of **Draft Quotation** , then:

1. Select the ***Customer*** **Smith and Offspring** . This has the effect of automatically completing several other fields: ***Ordering Contact***, ***Invoice Address***, ***Shipping Address***, and the ***Pricelist*** **Public Pricelist (EUR)**. They are all only defaults, so these fields can be modified as you need.

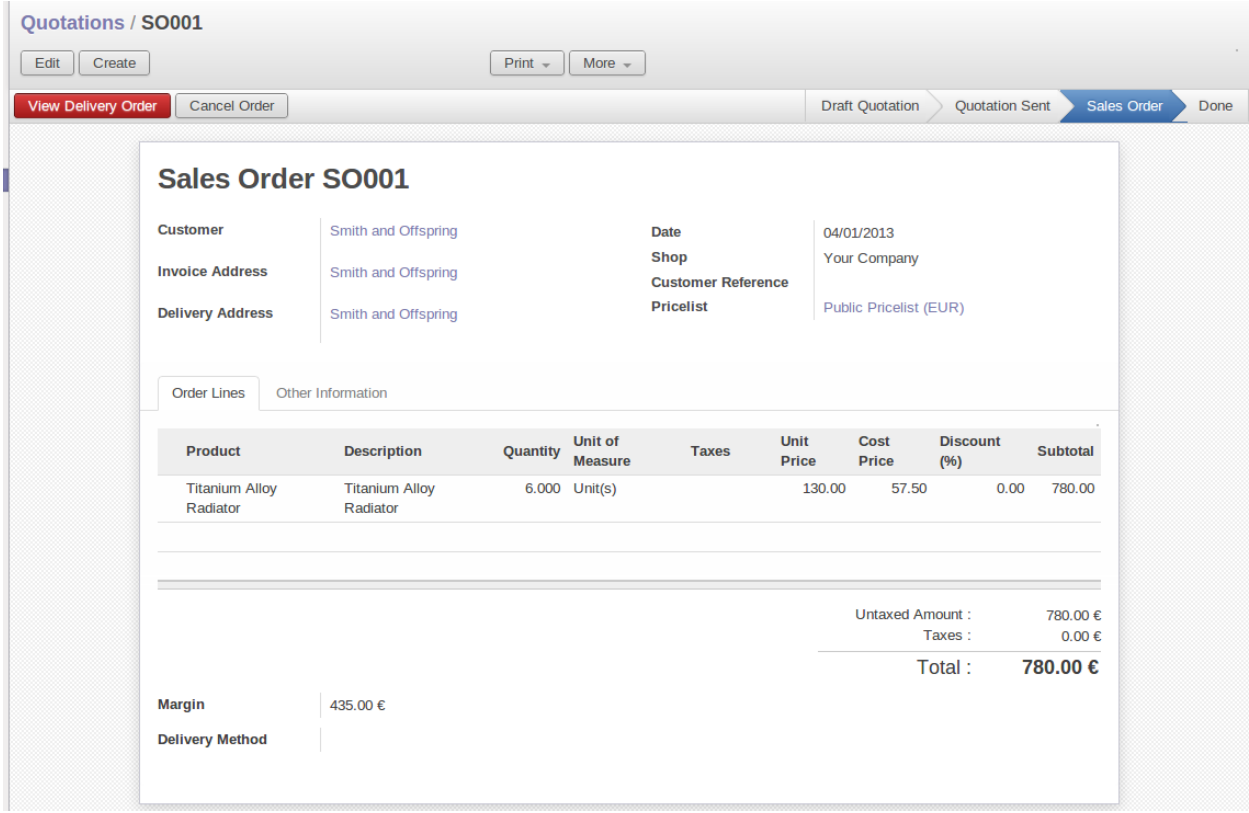
2. Click the ***Add an iteam*** link in ***Sales Order Lines*** section to open a ***Sales Order Lines*** window.

3. Select the product **Titanium Alloy Radiator** . Although the ***Product*** field is not itself required, it is used by OpenERP to select the specific product so that several other fields can be automatically completed on the order line of the proposal, such as ***Description***, ***Unit of Measure***, ***Unit Price*** and ***Taxes***.

4. Change the ***Quantity (UoM)*** to **6** and the ***Unit Price*** to **130.00**. Then click ***Save & Close*** and the line appears on the quotation form.

5. On the ***Other Information*** tab of this Sales Order, select a ***Shipping Policy*** of **Deliver all products at once** and ***Create Invoice*** of **On Delivery Order** from their dropdown menu lists. you can also define default Invoicing Method, use the menu ***Settings*** ▸ ***Configuration*** ▸ ***Sales*** under Invoicing Process set The default invoicing method is **Invoice based on deliveries** .

6. Go back to the Quatation and validate the document by clicking ***Confirm Sale*** which calculates prices and the changes the order's state from **Quotation** to **Sale Order** as shown in screenshot *Sales Order Form*. If you were in negotiation with the prospective customer, you would keep clicking ***Compute*** and ***Save***, keeping the document in **Quotation** state for as long as necessary.



Sales Order Form

7. By clicking ***View Delivery Order*** button, you can see the ***Picking List*** that has been created and you will be able to see any invoices that relate to this order when they are generated.

Go to ***Sales*** ▸ ***Products*** ▸ ***Products*** to display a list of products: just the one, **Titanium Alloy Radiator**, currently exists in this example. Its ***Real Stock*** still shows **10.00** but its ***Virtual Stock*** now shows **4.00** to reflect the new future requirement of **6** units for dispatch.

Preparing Goods for Shipping to Customers

The stores manager selects the menu ***Warehouse*** ▸ ***Receive/Deliver By Orders*** ▸ ***Delivery Orders*** to get a list of orders to dispatch. For this example, find the Delivery Order related to the sale order which you have created.

Tipp - Running Schedulers

At the moment, your Sales Order is waiting for products to be reserved to fulfil it. A stock reservation activity takes place periodically to calculate the needs, which also takes customer priorities into account. The calculation can be started from the menu ***Warehouse*** ▸ ***Schedulers*** ▸ ***Run Schedulers***. Running this automatically reserves products.

If you do not want to have to work out your stock needs but have a lean workflow you can install the **mrp_jit** (Just In Time) module.

Although OpenERP has automatically been made aware that items on this order will need to be dispatched, it has not yet assigned any specific items from any location to fulfil it. It is ready to move **6.00 Titanium Alloy Radiators** from the ***Stock*** location to the ***Customers*** location, so start this process by clicking ***Check Availability***. The ***Move*** line has now changed from the **Confirmed** state to the **Available** state.

Then click the ***Deliver*** button to reach the ***Deliver Products*** window, where you click the ***Deliver*** button to transfer the 6 radiators to the customer.

To analyze stock movements that you have made during these operations, use ***Warehouse*** ▸ ***Product*** ▸ ***Product*** and find this product, then click on the action Stock by Location which is at the right most side to see that your stocks have reduced to 4 radiators and the generic **Customers** location has a level of 6 radiators.

Invoicing Goods

Use the menu ***Accounting*** ▸ ***Customers*** ▸ ***Customer Invoices*** to open a list of Sales invoices generated by OpenERP. If they are in the **Draft** state, it means that they do not yet have any presence in the accounting system. You will find a draft invoice has been created for the order **SO00001** once you have dispatched the goods because you had selected **Invoice based on deliveries** .

Once you validate an invoice, OpenERP assigns it a unique number, and all of the corresponding accounting entries are generated. So open the invoice and click ***Validate*** to do that and move the invoice into an **Open** state with a number of **SAJ/2013/002**.

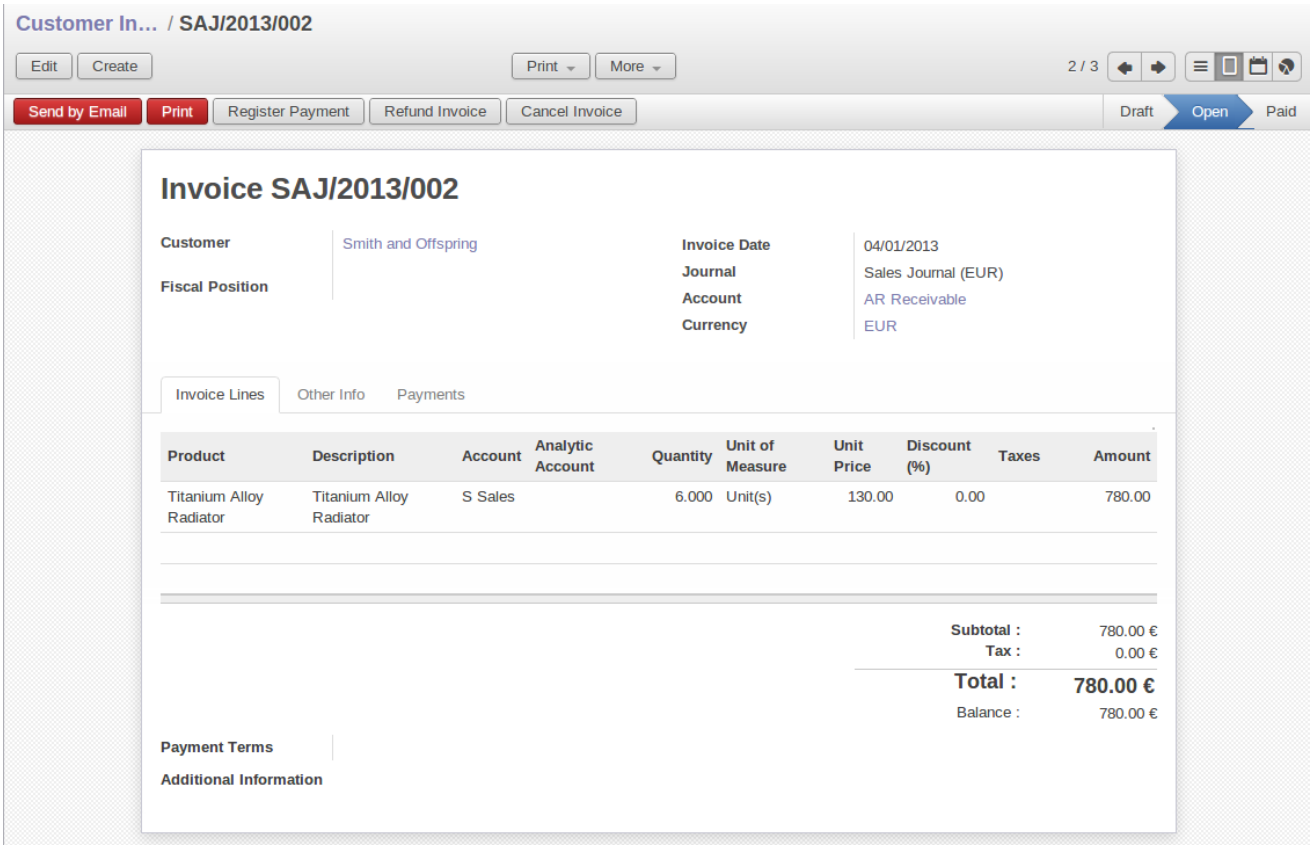
You can send your customer the invoice for payment at this stage. Print Invoice by Click ***Print*** or ***Invoice*** link from Print button to get a PDF document that can be printed to the customer.

Review your chart of accounts to check the impact of these activities on your accounting. You will see the new revenue line from the invoice.

Customer Payment

Registering an invoice payment by a customer is essentially the same as the process of paying a supplier. From the menu ***Accounting*** ▸ ***Customers*** ▸ ***Customer Invoices***, click the name of the invoice that you want to mark as paid:

1. Use the ***Register Payment*** button which opens a new window Pay Invoice.
2. Select the ***Payment Method***, for this example select **Bank(EUR)** then Pay the entry.



Invoice Form

Check your Chart of Accounts as before to see that you now have a healthy bank balance in the **Cash** account.

Managing Customer Relationships

Managing Customer Relationships

The Sales department is the engine of your whole company. Sales success drives staff motivation and your company's general dynamism, which in turn enables you to keep innovating and lay the foundations for future success. The key to continued Sales success is effective Customer Relationship Management (most often known as CRM). Open ERP's CRM capabilities are flexible and highly developed to assist you in managing all aspects of both supplier and customer relationships.

Managing Customer Acquisition

Managing your Customers

What is the difference between a partner (***company***) and a contact in OpenERP? A**Partner** represents an entity that you do business with - a customer, a prospect, or even an employee of your company. In other CRM applications, a partner (***company***) is also referred to as an Account. A**Contact** represents a person who works for a partner.

Each partner can have an unlimited number of contacts. OpenERP also allows you to have several contacts with the same address type for one partner. You can easily link several Invoice addresses to a customer, for instance.

Bemerkung - Address Types

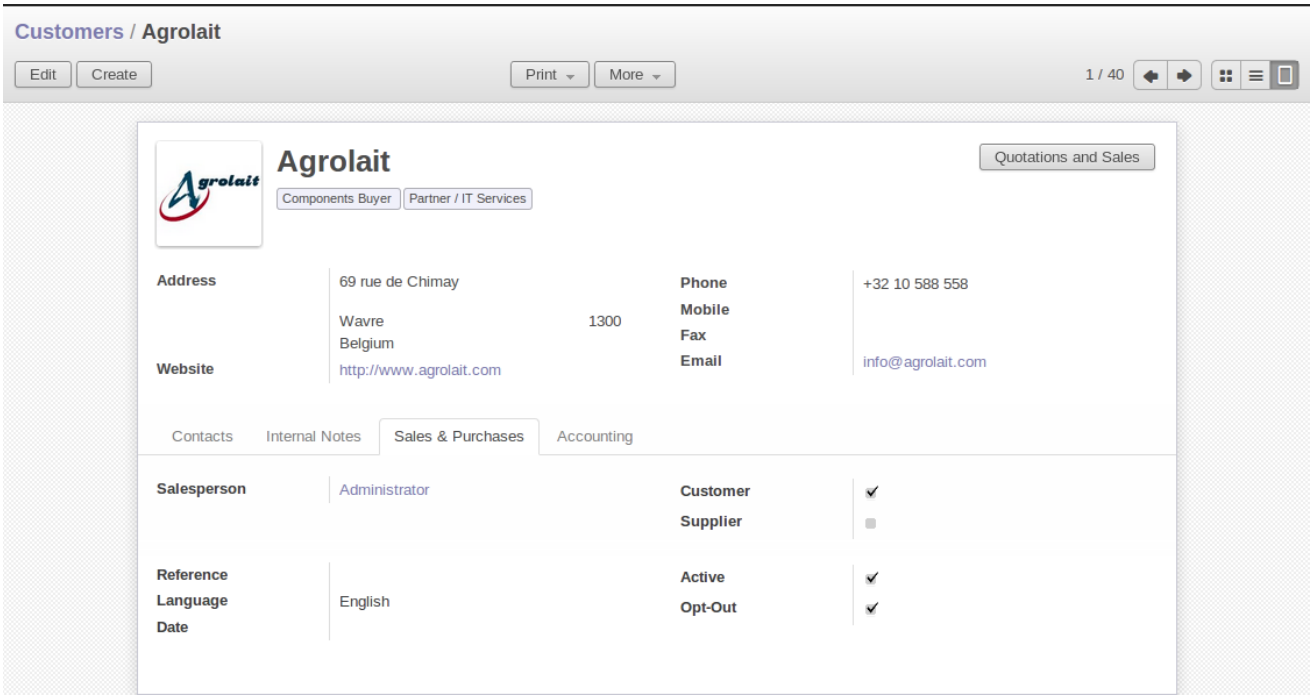
If you have recorded several contacts for the same partner (***company***), you can tell OpenERP which contact will be used in various documents (e.g. a quotation) by specifying the **Address Type**.

For example, a partner (***company***) can have a delivery address that differs from the company's invoice address. If the Address Types are correctly assigned, OpenERP can automatically select the appropriate address during the creation of the document – an invoice is addressed to the contact that has been assigned the Address Type of Invoice, otherwise to the Default address.

The concept of a partner in OpenERP is much more flexible than in many other management applications. Why is that? Because a partner can be your supplier and your customer at the same time. As a consequence, any data you update for that partner will apply to both customer and supplier! Thanks to this, you no longer need to update your customer/supplier information several times (or even in several places) for the same partner.

The partner form contains information about the company, such as its corporate name, its postal information, its communication information, its website and the categories the partner belongs to. The partner form is composed of several tabs.

- the ***Contact*** tab contains information about different contacts of that partner (*company*).
- the ***Internal Notes*** tab is an area for free text notes.
- the ***Sales & Purchases*** tab contains information such as the default salesperson and sales team, whether the partner (***company***) is a **Customer** and/or a **Supplier** and its primary language.
- the ***Accouting*** tab contains information about Fiscal Position,Account Payable/Receivable,Credit Limit,etc.

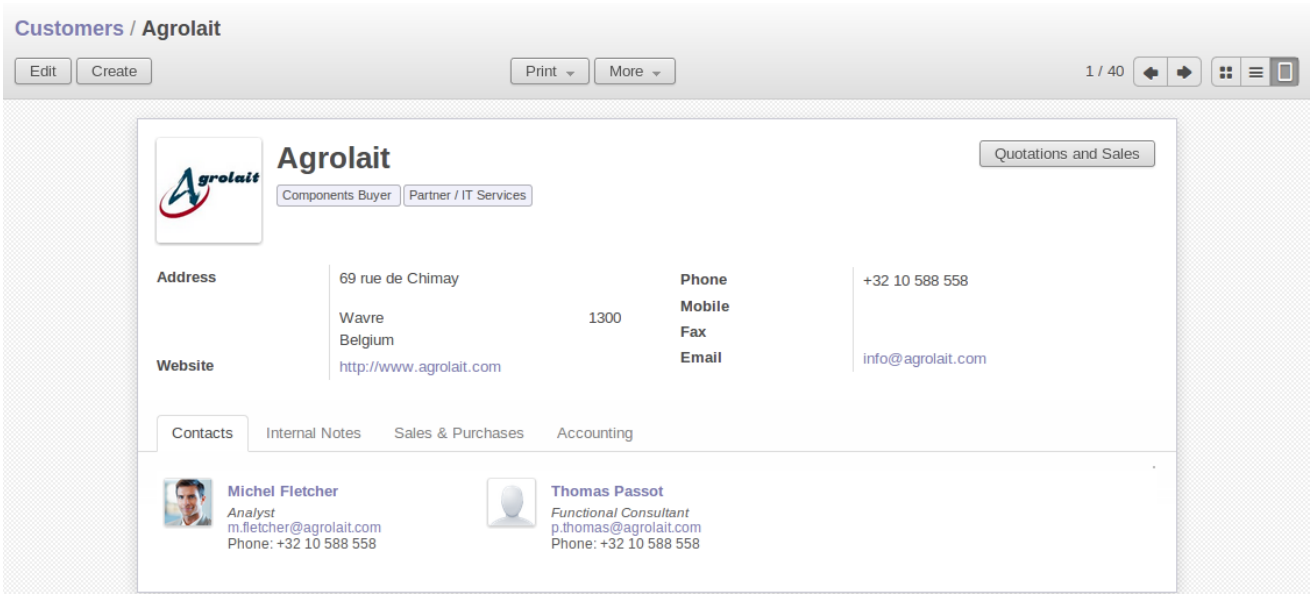


The Sales & Purchases of a Customer

Creating and Updating Partners

Before explaining you how to create a partner, just a quick word on the different ways of representing partners in OpenERP. Kanban view shows a global overview of customers (the default representation when you click the Customers menu). List view shows a list of customers. In this view, you can see several customers at a time. Form view is displayed when you click a specific customer to start editing or when you create a new customer.

To create a new partner (a company, customer, supplier, ...) use the menu **Sales ▸ Customers** (for customers) or the menu **Purchases ▸ Suppliers** (for suppliers). These menus does not only allow you to create a new partner, but also to search for partners.



A Customer Form

Bemerkung - Mandatory

Blue fields are always mandatory, meaning that you have to enter a value there. It is impossible to save changes as long as a blue field is not completed.

You should at least enter the company's **Name** in the partner form. Some fields are text fields, other fields may be linked to existing data that have been entered elsewhere, such as **Countries**.

Create a customer with the following data:

- ***Name*** : **Smith and Offspring**,
- ***Customer*** checkbox : **checked**, in the Sales & Purchases tab,
- ***Supplier*** checkbox : **unchecked**, in the Sales & Purchases tab,
- ***Contact Name*** : **Stephen Smith**, in the Contacts tab
- ***Type*** : **Default**,
- ***Save*** the form.

Tipp - Email

If you use the email gateway, the Outlook or the Thunderbird plugin, do not forget to register an email addresses to each contact.

To update a partner, open the corresponding form, selectEdit and change the required fields. As explained before, when a company is both one of your customers and a supplier, you just have to edit the partner form once to have changes applied to both customer and supplier.

Bemerkung - Checkboxes

Why is it important for you to correctly set the Customer and Supplier checkboxes in the partner form? These checkboxes are designed to enable OpenERP to quickly select the partners who should be displayed in some drop-down boxes. An example: when you select a partner in a Sales Quotation, OpenERP will only allow you to select from the list of Customers. And that is precisely what the Customer checkbox is used for.

Managing your Contacts

You can have several contacts for one partner. Contacts represent company employees that you are in touch with, along with their address details. For each address you can indicate the type (**Default**, **Invoice**, **Delivery**, **Contact** or **Other**).

Contacts can be entered into the ***Contacts*** tab of the Customer form. Or you can also create a new partner and assign a company on that partner which will make this partner as a contact on that partner (***company***).

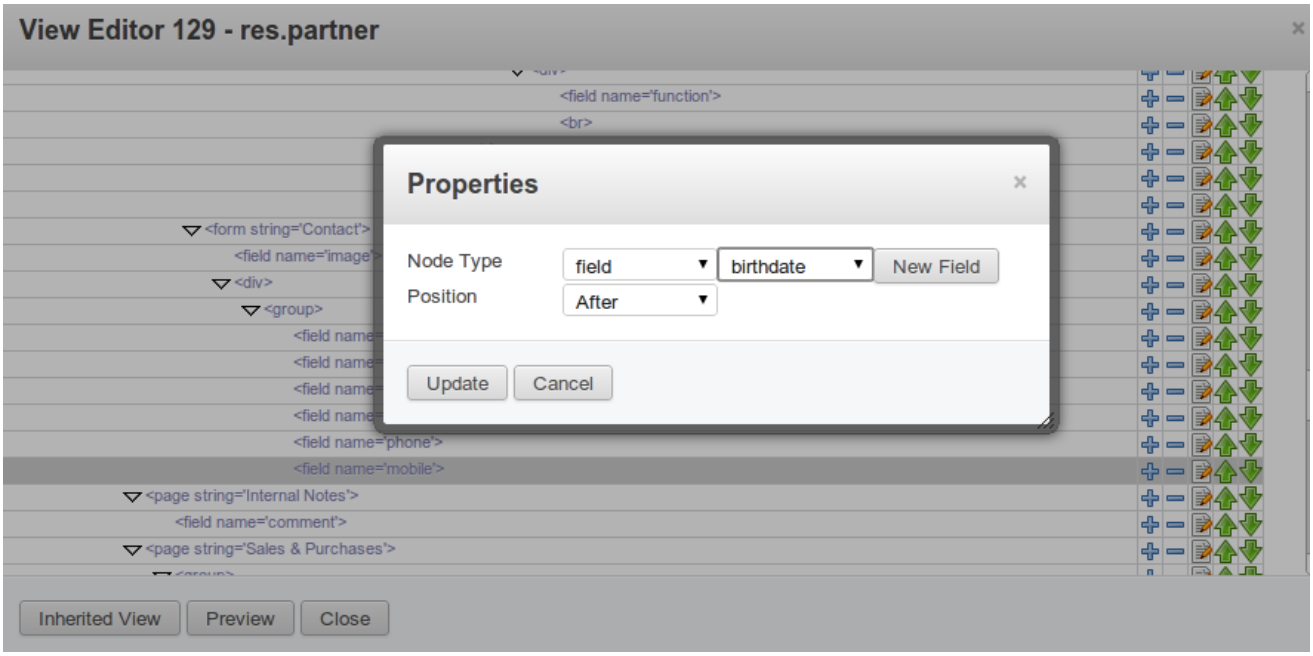
Customizing Partner Fields

OpenERP also allows you to customize the **Partner** view to your needs. Click the Manage Views option if you want to add fields, delete fields or change the order of fields in a view.

Let us add the **Birthday** field to a contact, in the Customers form view. To do so, click on the logged in user at top-right and select ***About OpenERP*** and then select ***Activate the developer mode***. Now go to the ***Sales*** ▸ ***Customers*** menu and open any customer in Form view. Click on Debug View# and then select Manage Views, then Edit because the corresponding view will already be preselected.

Go to the last line of the view and click the blue plus (+) sign to add a field to the contacts view. Proceed

as in the figure below, then click the Update button.



Add the Birthday Field for a Contact

In the Properties screen that appears, click on the ***New Field*** through which you can change the label to Birthday in the String field. To indicate that a new field can be used in the corresponding search view, make sure to select **Always Searchable**. Click the Update button to confirm your changes. ClickPreview to see your result. The **Birthday** field will now appear in your ***Customers form view --> Contacts tab --> Create/Open*** any contact, ready to be used. You can also customize the**actions**.

Performing Actions on Customers

At the right side of the Customers form view, you will find button(**Quotations and Sales**). You can perform actions(by clicking on the **More** at the top) and print reports(by clicking on the**Print** at the top) both from List and from Form view, List view allowing you to do actions for several partners at the same time. You can also add an attachment.

Tipp - Actions

To display the list of possible actions, just select one or more customers.

You can create a new opportunity for a customer, or start a mass mailing. Mass mailings will usually be started from list view, because you will select several partners at a time.

Bemerkung - Campaigns

For mass mailings, you might prefer to use the Direct Marketing application, which offers great functionalities (please refer to chapter *Driving your Marketing Campaigns*).

Finding your Partners using Filters

Open the Customers list view to discover the search options(top-right) allowing you to easily filter your partners.You can group by **Salesman** to see which customers have already been assigned a salesman or not.And can also group by **Company**. You can filter by ***Persons*** to see the customers you are responsible for. You can also filter by ***My Partners***, ***Companies***, ***Customers*** and ***Suppliers***.

Tipp - Limit

If you want to display more than 80 partners displayed by default, click the **1 to 80 of 80** option at the top of the screen to be able to change the limit.

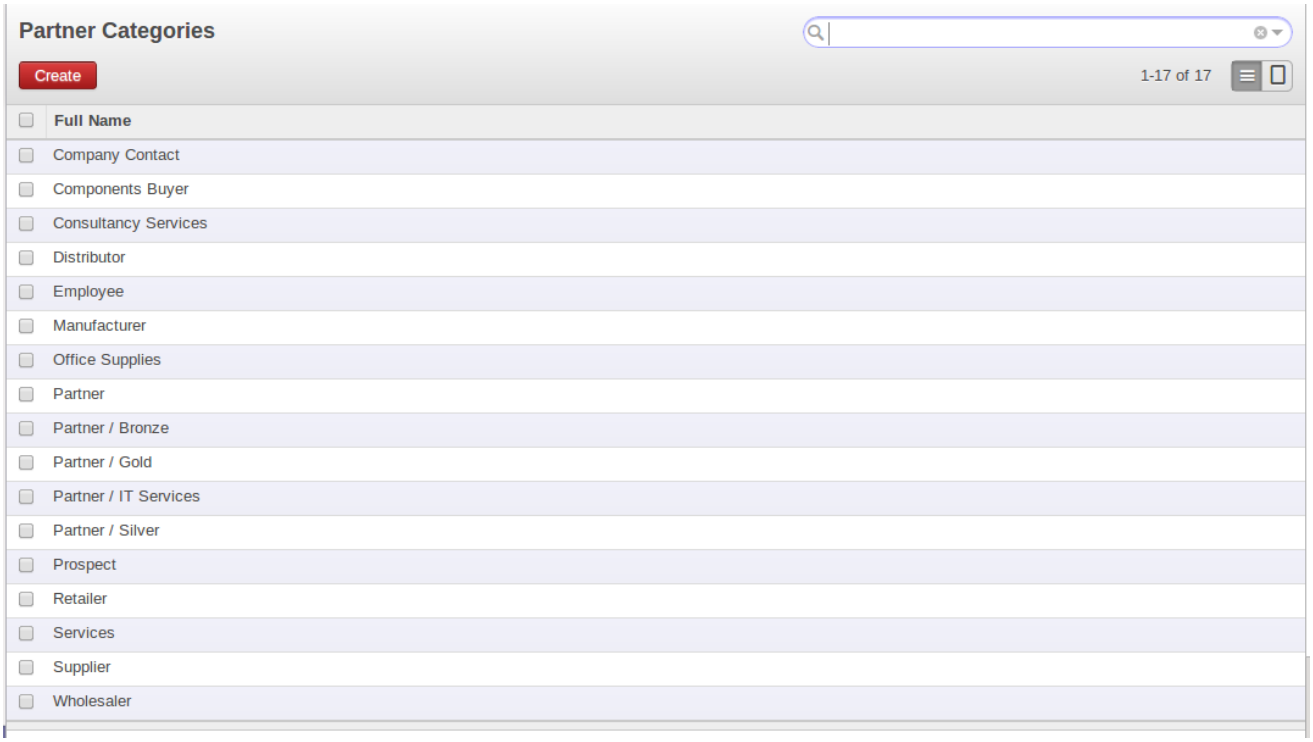
Filters also allow you to quickly set lists of customers for which you want to do specific actions. Through the **New Filter** option, you can also add your own filters for any field related to the **Customer** form.

Bemerkung - Filters

You can easily create your own frequently used filters by prefiltering the data the way you want and then using the Save Filter option.

Categorizing your Partners

OpenERP uses categories to organize all of its partners according to their relationship with your company (partner, prospect, supplier, and so on). Each partner may be attached to several categories. To open the list of available partner categories, use the menu ***Sales ▸ Configuration ▸ Address Book ▸ Partner Tags***.



List of Partner Categories

Bemerkung - Categories

To create a new category, go to the menu ***Sales ▸ Configuration ▸ Address Book ▸ Partner Tags*** and click the **Create** button.

Because categories can be organized according to a tree structure, you can apply an action at any level of the structure: a marketing promotion activity, for example, can be applied either to all customers, or selectively only to customers in one category and its subcategories.

You can create your own categories and assign them to your partner from the Customer form.

Managing your Leads

To define leads, imagine a bucket full of potential sales contacts expressing an interest in your company's products.

A lead represents a potential customer with whom you have not established a relationship yet. Usually a lead contains valuable information to realise future sales opportunities. However, the most common mistake is that such key information too often gets lost, because it is registered nowhere. And even when registered, it might still be difficult to track any activity for that lead, because the information is not at hand when you need it.

Storing leads information in a central place such as OpenERP will release you of these worries.

So when would you create a lead in OpenERP, either manually or automatically? The following events could be a trigger:

- An inquiry email sent to one of your company's generic email addresses, such as sales@mycompany.com, from the mailgateway,
- A business card from a prospective customer met briefly at an exhibition: you have to contact him again to qualify the lead and to know if there is any possibility of a sales opportunity; registered manually,
- A database of potential customers in a given sector and region imported through a CSV file. The potential customers have to be contacted again individually or through a mass mailing to determine which contacts require further follow-up,
- An interesting contact that you met during a business networking event. You have to qualify it before assigning a salesperson to the contact,
- A form completed on your website directly integrated into OpenERP using our webservice. Before converting the form into a sales proposition or opportunity, you should read and handle the person's request.

Employees in the marketing or presales department will usually work on leads. Once these leads will be converted into customers and/or sales opportunities, the sales department pays individual attention to each opportunity. Of course, before converting a lead into an opportunity, some qualification work has to be done.

OpenERP allows you to easily configure the way your company qualifies leads. You can create your own stages through ***Sales*** ▸ ***Configuration*** ▸ ***Leads & Opportunities*** ▸ ***Stages*** Use the sequence number to determine the order of the stages, i.e. 10 for First Call, 20 for Renewing Contact and so on. Of course, you can also drag & drop a stage to another place to automatically change the order of all the stages. A salesperson can change the status of the lead according to the response from the prospect and enter the result of this contact in the lead form (e.g. in the **Notes** field).

Leads can be assigned to a***Sales Team*** for easy follow-up (see *Adapting OpenERP to your Sales Organization*). Each user can be added to a default sales team which can be specified in the User Preferences. When you define a tree structure for your sales teams, you can also escalate a lead to another sales team for further actions.

Bemerkung - Leads or Opportunities

Companies may decide to not use leads, but instead to keep all information directly in an opportunity. For some companies, leads are merely an extra step in the sales process. You could call this extended (start from lead) versus simplified (start from opportunity) customer relationship management. OpenERP

perfectly allows for either one of these approaches to be chosen. If your company handles its sales from opportunities directly, feel free to move on to chapter *Optimizing your Sales Cycle through Opportunities*, although most of the features explained below also apply to opportunities.

In the next sections we will explain in more detail some examples of what Leads in OpenERP can be used for.

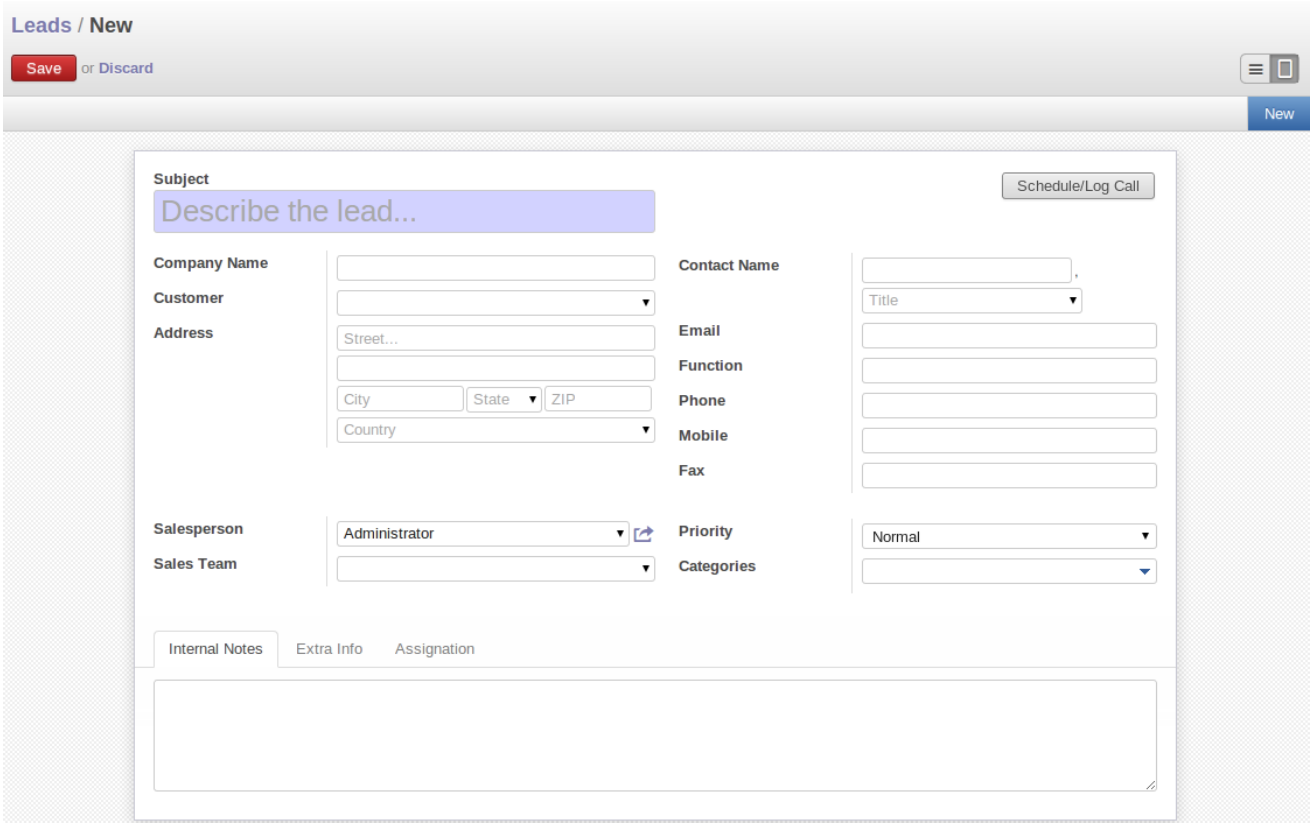
Storing your Business Cards effectively

Potential customers are usually entered as a lead in the system. This means that you do not create a partner or a sales opportunity until you have qualified whether the lead is interesting or not.

Tipp - Qualification

When a qualified lead requires further actions, you can turn the lead into a partner and, eventually, a sales opportunity.

To make a new lead, go to the ***Sales*** ▸ ***Sales*** ▸ ***Leads***menu and click the Create button. In the Lead form that opens, you can enter the contact data of this new potential customer and add notes.

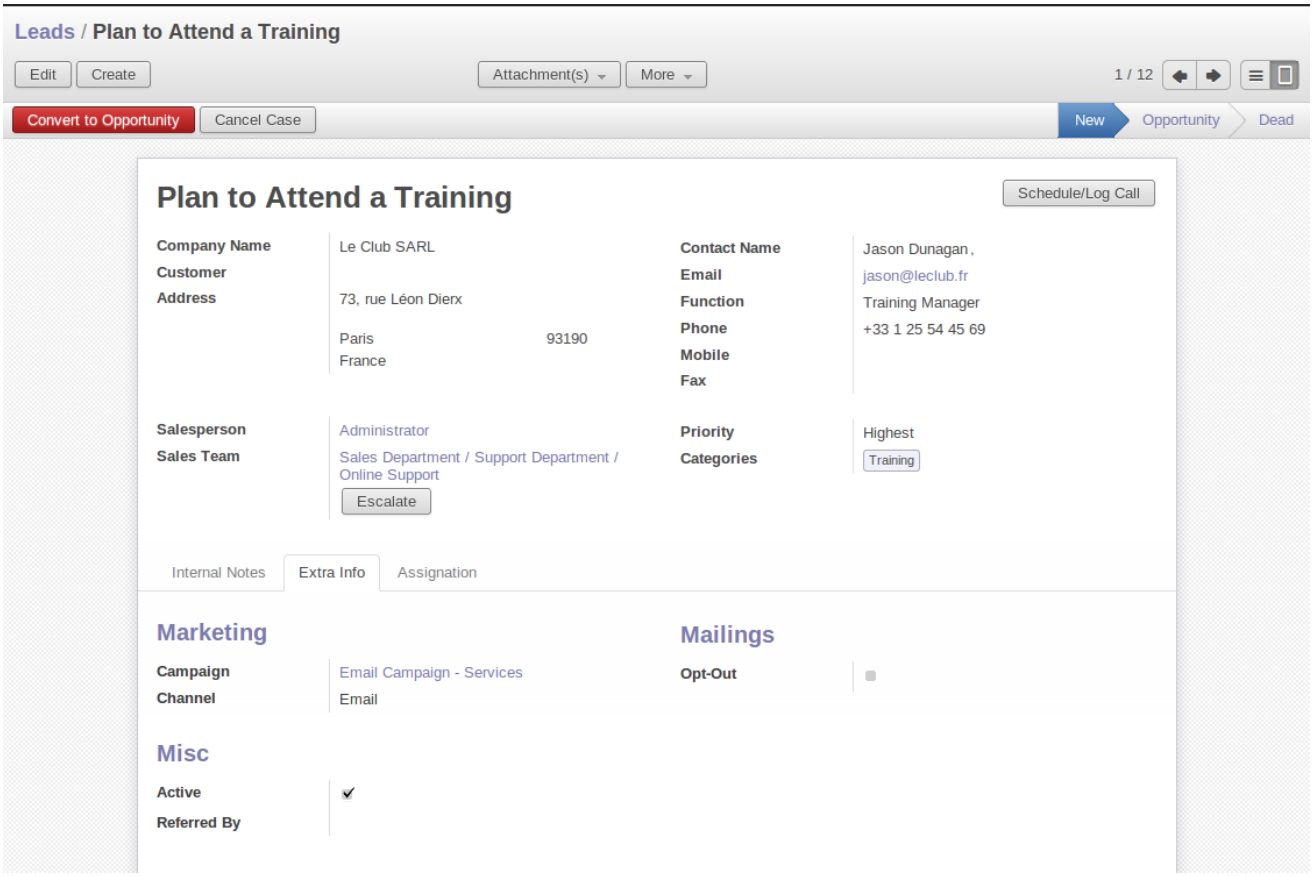


Creating a New Lead

You can also set the status of a lead according to the qualification work that has been carried out:

- **New** : the lead data have been entered, no work has been done yet and a salesperson has not yet been assigned to the request,
- **Opportunity**: the lead has been converted into a partner and/or a sales opportunity,
- **Escalate**: the lead is escalated to the upper sales team in the tree structure for further actions,
- C**ancelled**: the lead has been cancelled because the salesperson has decided that it is not worth following up.

On the ***Extra Info*** tab in the Leads form, you find information about the campaign, the channel, and so on.



Extra Tab

Importing a Leads Database

You can also import a huge list of leads. That may be useful if you have bought a database of potential prospects that you want to load into OpenERP to handle them all at the same time.

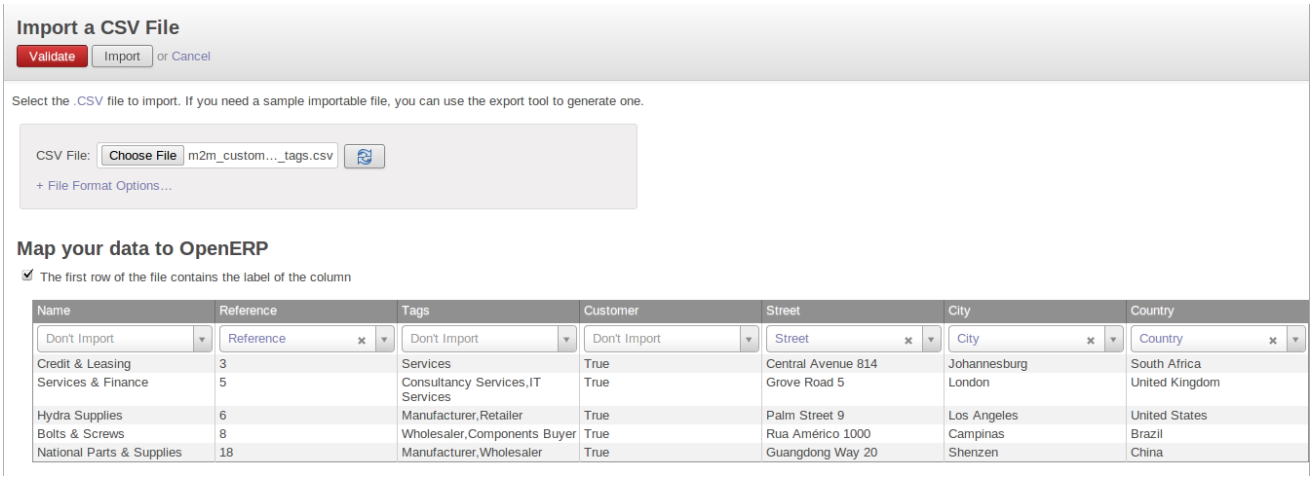
Start with a list of leads in CSV format, for instance. If your prospects database is provided in another format, you can easily convert it to the CSV format using Microsoft Excel or OpenOffice Calc.

Tipp - Import

The best thing to do to make sure your import will go smoothly, first export all the required Lead fields using the Export function, and then edit the resulting csv file for import.

Open the Leads form using the menu ***Sales*** ▸ ***Sales*** ▸ ***Leads***. List view of leads shows two options create or import, click the ***Import*** link.

Select your file containing the leads information and click ***Import File***. OpenERP will automatically map the column headers from your CSV file to the corresponding fields in OpenERP. If necessary, you can click **CSV Options** to change the settings so that they match your local settings.



Importing Leads into the System

Check the online chapter about system administration for more information on import and export on http://doc.openerp.com/v6.0/book/.

Tipp - Various Imports

Importing and Exporting data in OpenERP is a generic function available to all resources. So you can import and export such lists as partners, opportunities, accounting entries, products and price lists.

Clearly there are other methods of generating leads automatically or semi-automatically:

- Through a Contact Form on your Website;
- Using the Outlook or Thunderbird plugin to insert new leads directly from the salesman's mailbox when he sees promising emails,
- Using the email gateway for each incoming email from a certain address (such as sales@mycompany.com) which may create a lead automatically from the contents of the email.

These different methods are described later in this book (see chapter*Automating your Lead Acquisition*).

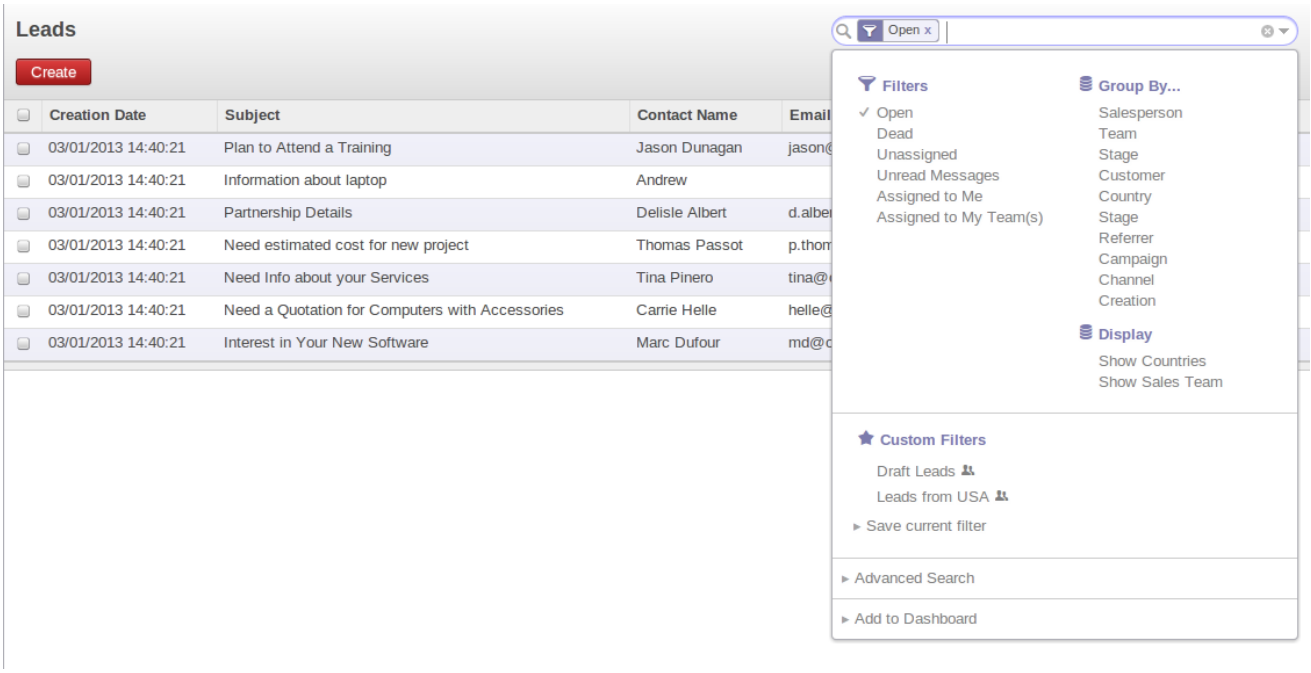
Organizing Leads

To help the users organize and handle leads efficiently, OpenERP provides several features in the CRM to be used according to the needs of each:

Use the ***Sales*** ▸ ***Sales*** ▸ ***Leads***view to organize your leads:

- Display a list of all the leads (New, open, Unassigned Leads, ...) according to the sales team you are linked to,
- Display a list of New leads by clickingNew,
- Display Unassigned Leads by clicking Unassigned Leads,
- Display a list of all the leads assigned to different salespeople by clicking the Group by button Salesperson.
- Quickly find leads not yet assigned to a Campaign, by clicking the Group by button and then Campaign.

The sales manager can use this Leads view to easily keep track of what each salesperson is working on.



List of Leads to be Handled

Leads can also be prioritized. Salespeople can assign a priority to their lead, and then start working on their leads from the top of the list, which is sorted by priority.

Analysing Leads

OpenERP also offers statistical reports to keep track of your Lead Management. The ***Reporting*** ▸ ***Sales*** ▸ ***Leads Analysis*** report allows you to check various leads-related elements. You can look at processing delays, number of responses given and emails sent (if you use the email gateway feature). Sort your leads analysis by different groups to get accurate, grained analysis.

These are some analysis possibilities of the Leads Analysis report.

1. Leads by State and per Month

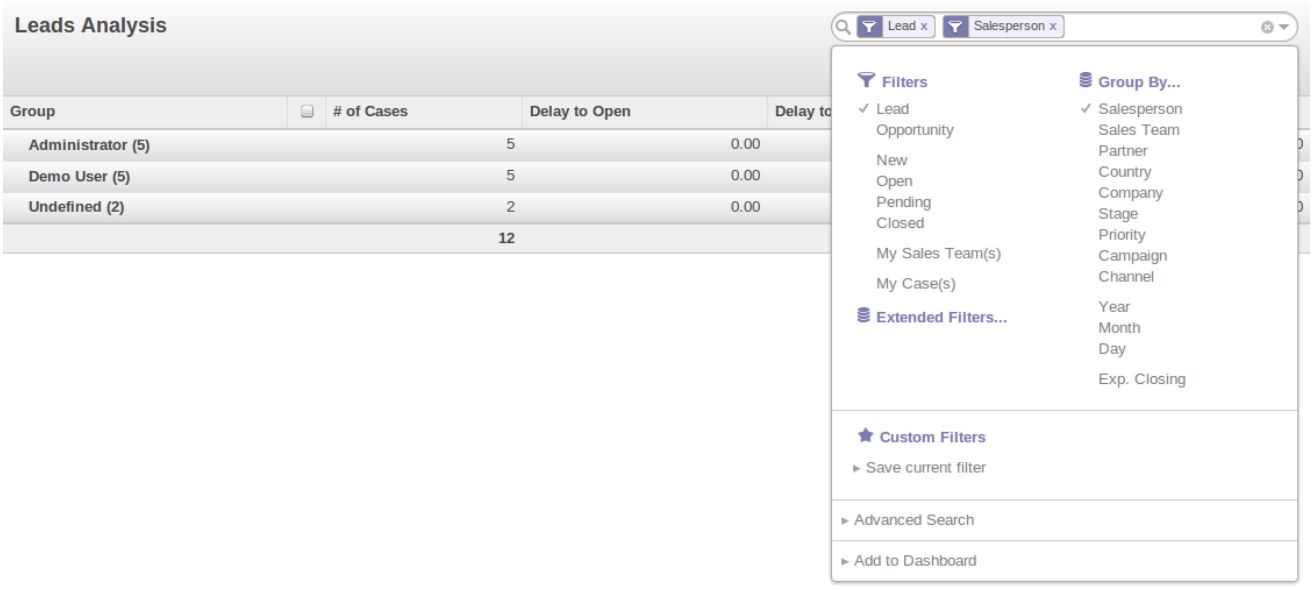
To analyse the leads by status, group the leads by qualification level (**Stage**) and status (**State**), this can also be done for individual months (first group by **Month**).

2. How effective are your Campaigns?

Group by Campaign to easily find the number of leads by campaign and the total number of leads. You can also select a specific campaign in your filter.

3. Leads by Priority.

Group by Priority to see which leads are hot, warm or cold.



Leads Analysis

Optimizing your Sales Cycle through Opportunities

While a lead represents the first contact with a prospect yet to be qualified, a sales opportunity represents a potential contract. Each opportunity has to be followed up by a salesperson (or sales team) spending time to qualify the opportunity, and this either by making a quotation or cancelling the opportunity.

Leads are generally handled by the dozen, with the automation of certain responses or emails. Opportunities, on the contrary, are usually tracked one by one by the salespeople, because an opportunity involves a negotiation process with the customer to be.

Just like for leads, OpenERP provides specific features to handle sales opportunities efficiently. All opportunities can be found in the menu ***Sales*** ▸ ***Sales*** ▸ ***Opportunities***

With opportunities, you can manage and keep track of your sales pipeline by creating specific customer- or prospect-related sales documents to follow up potential sales. Information such as expected revenue, opportunity stage, expected closing date, communication history, next action date, next action, and much more can be stored.

Opportunities can be connected to the email gateway: new emails may create opportunities, each of them automatically gets the history of the conversation with the customer. You and your sales team(s) will be able to plan meetings and phone calls from opportunities, convert them into quotations, manage related documents, track all customer-related activities, and much more.

Tipp - Attachments

By default, you can keep attachments in OpenERP to make sure all linked documents are directly accessible. At the top side of the screen, under **Attachments**, click the ***Add*** button to start linking documents to your opportunity. You can add attachments in the same way for leads, for instance. If you also want those documents to be indexed (not for pictures), you should install the Knowledge Application.

Converting Leads into Customers or Opportunities

If the salesperson thinks that the lead has been well qualified and that there is a real opportunity,

following the contact he had with the prospect, he can easily convert the lead into a partner / opportunity using the button ***Convert to Opportunity***.

Clicking the Convert to Opportunity button offers several possibilities, allowing you also to avoid duplicate partners:

- You can decide to just create the opportunity and keep the contact data from the lead without creating a customer,
- You can convert to an opportunity, and create a new customer if it does not exist yet, or merge the contact with an existing customer,
- You first create a customer, and later you convert the lead to an opportunity.

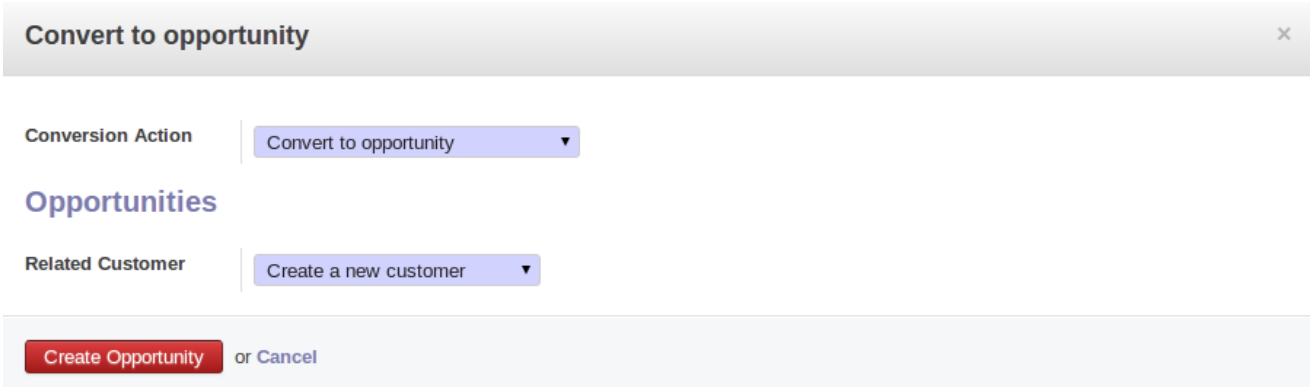
Tipp - Convert to Opportunity

When you click the Convert to Opportunity button and the email address of the new contact is filled out, OpenERP will check whether this email address corresponds to an email address of an existing customer. If so, OpenERP will directly propose to merge the new contact with the customer found.

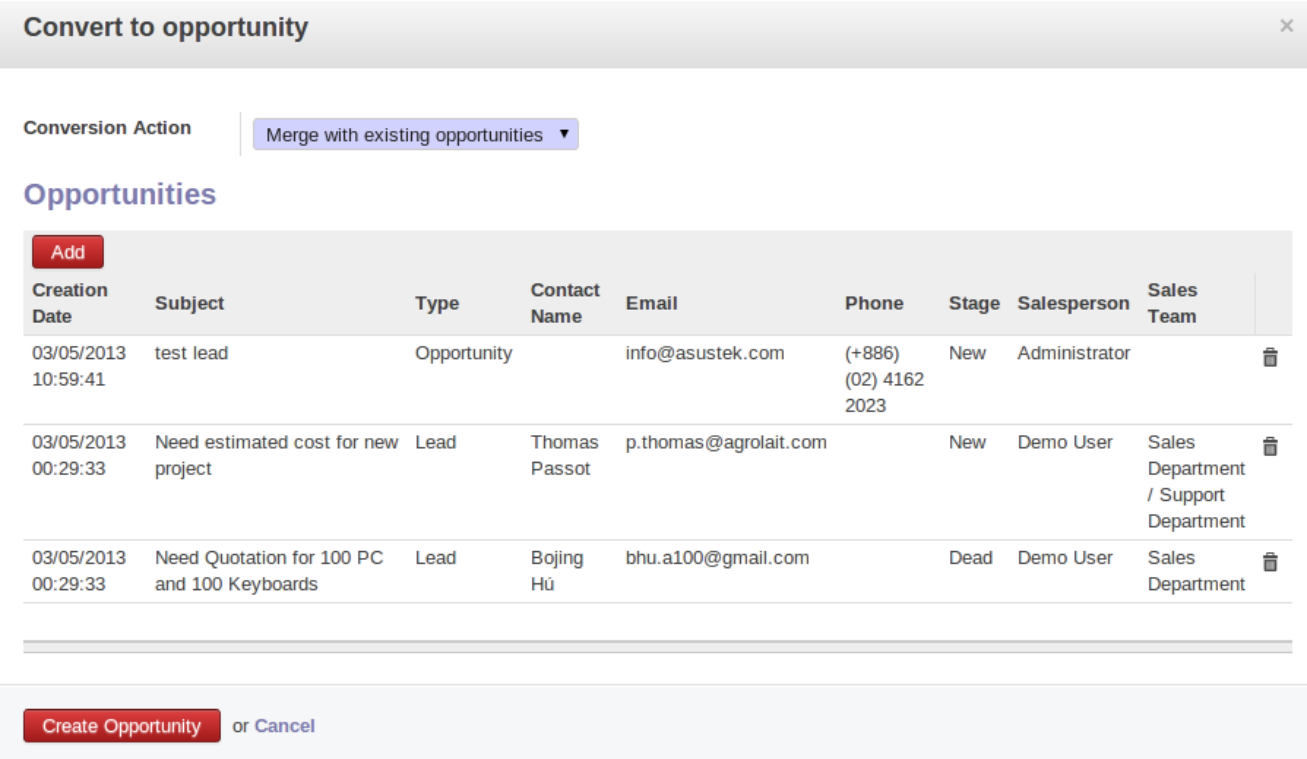
When you click the ***Convert to Opportunity*** button and the customer already exists, OpenERP opens a window allowing you to select:

- whether you want to create a new opportunity,
- whether you want to add this lead to an existing opportunity (merge).

OpenERP shows the title of the opportunity (taken from the lead description) and the partner.



Converting a Lead into a Sales Opportunity



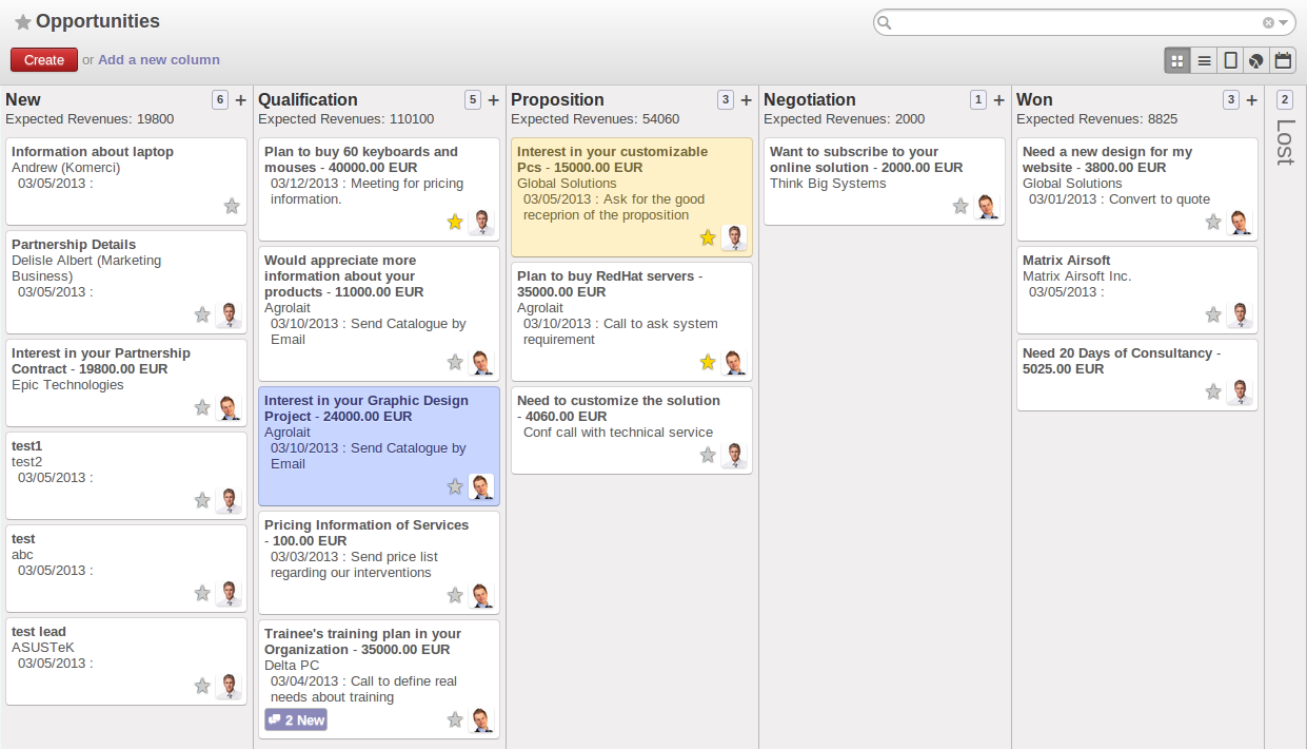
Convert to opportunity (merge with existing)

The Kanban View: Everything at a Glance

In order to improve the end user productivity, we developed a drag & drop kanban view for some documents. This new view allows users to easily reorganize their records while allowing them to maintain a global overview.

In kanban view of Opportunities where you can now pick between different stages in the kanban view: New, Qualification, Proposition, Negotiation, Won or Lost. This will help you understand and visualize better the status of your opportunitites and decide what to tackle first.

As opposed to 6.1., when you access Opportunities in 7.0. there are no extra buttons or unnecesary tabs.



Kanban view of Opportunity

Adapting OpenERP to your Sales Organization

Your sales organization may be composed of several groups which for instance address differ*Sales ▸ Configuration ▸ Sales Teams*.ent customer segments or geographies, sell different products and services and often manage different sales cycles. As a manager you will want to track the performance not only for each individual but also for eac*Sales ▸ Configuration ▸ Sales Teams*.h group.

OpenERP allows you to do that by definingSales Teams. A sales team is a group of sales people who are performing a similar position. Implementing sales teams is a powerful tool. It allows you to:

- Assign leads or opportunities according to their nature to a sales team first. Then according to the company's policy, the opportunities can be assigned to a given individual. For example opportunities can be assigned to a Western Region sales team or Eastern Region sales team in the first place according to their location. Each sales person may pick unassigned opportunities in his sales team according to his availability,
- You can group your sales teams according to a tree structure (hierarchy). This allows you to have a view of your sales activity at different granular levels (local, regional, national for instance),
- Some sales teams may manage their opportunities through different sales cycles. For instance a car dealership which addresses both the residential and corporate customers, will have different sales cycles.
- For each sales team, you can assign a responsible user and an email address that will be used when creating or replying to emails from OpenERP. This will be proposed by default in OpenERP when you create an event for this customer.

Bemerkung - Sales Teams

To define your Sales Teams, go to***Sales ▸ Configuration ▸ Sales Teams***

Let us take the example of a bank to explain how you can define your sales teams. A bank has several departments, such as Insurance, Accounts, Assets, Credit Management. Each department may be divided into several subdepartments. For Insurance, this could be Group Insurance and Home Insurance. The hierarchical structure of your Sales Teams could then be as follows:

- **Insurance Sales Team**
  - Group Insurance
  - Home Insurance
- Accounts Sales Team
- Assets Sales Team
- Credit Management Sales Team

Defining the Key Steps of your Sales Cycle

Each company will have similar, yet customized stages to qualify opportunities.

To see & define stages for Opportunity qualification, go to***Sales ▸ Configuration ▸ Leads &***

Opportunities ▸ Stages.

The key steps of your Sales Cycle are what OpenERP calls **Stages.** You can use the stages to improve your sales capacity, because they allow you to find out the reasons why deals succeed or fail.

Stages will allow salesmen to easily track where a specific opportunity is positioned in the sales cycle. One of the frequent difficulties in using stages is that different sales people may assess differently in which stage their sales opportunity should be. You can avoid this by clearly stating what you expect as a result for each stage. This way, your sales teams will use the same stages throughout the qualification process, allowing the sales manager to get accurate and consistent information. We also recommend to limit the number of stages in your sales cycle to make them easy to follow up.

As you progress in your sales cycle, and move from one stage to another, you can expect to have more precise information about a given opportunity. For example, when setting an opportunity as 'Qualified', you may decide that the salesman has to enter the "Expected Revenue" and the "Expected Closing Date." You can also have the probability changed automatically when changing stages, by selecting the "Change Probability Automatically" checkbox. If checked, OpenERP will set the probability of the opportunity to the probability defined in the stage. If you set a probability of 0% (Lost) or 100% (Won), OpenERP will assign the corresponding stage when the opportunity is marked as Lost or Won.

As an example, to track your opportunities, you can assign the following stages to the sales team. For each stage, you assume you will define criteria that have to be met prior to moving to the next stage.

1. New - Segment your opportunities into territories.
2. Qualified – Attract the prospect's interest, determine whether the prospect has a need.

   What is the expected result?
   - The need to buy the product/service has been confirmed,
   - Confirm that there is a budget.
3. Proposition – Discuss some solutions to determine the customer's preferences, recommend specific solutions to answer the customer's needs.

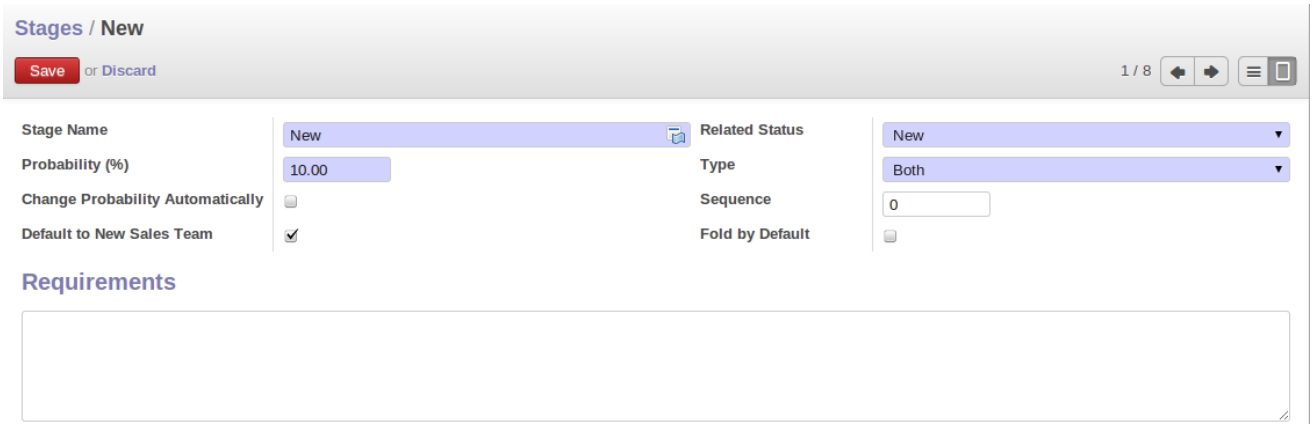
   What is the expected result?
   - Demo and/or Proposal given,
   - Decision maker confirmed his interest to purchase,
   - Preliminary pricing confirmed/agreed upon.
4. Negotiation – Submit the final proposal to the customer and begin the negotiation process.

   What is the expected result?
   - Negotiation concluded,
   - Contract terms/conditions agreed upon,
   - Contract submitted for signature.
5. Won/Lost – Register the final step of the opportunity.

   What is the expected result?
   - Contract signed / not signed,

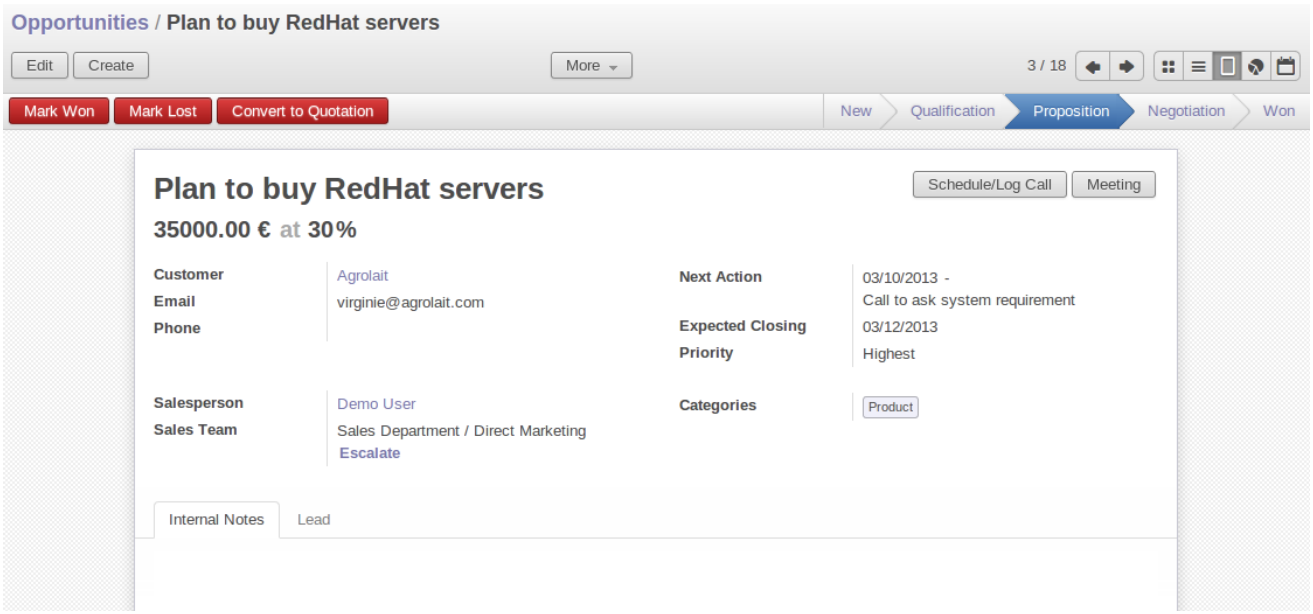
- Next steps.

If you decide to add a stage, you will have to configure it with some basic information. In case you are really keen on states, we kept the state concept through the stage in order to associate your stage to a state (new, open, pending, close). You can do this by accessing the stage configuration form.



Example of Opportunity Stages

The stages are now conveniently placed on the top right hand of each of opportunity. In this way, you can easily change the status of the opportunity in just one click.



Stages on Opportunity

OpenERP also has other sales configuration options; you can define yourCampaigns, allowing you to keep track of the event your leads and opportunities refer to. Examples of campaigns are Google Adwords, an event you are hosting, a newsletter. With Sales Tags you identify your prospect's needs (e.g. Needs Training, Needs OpenERP Online), while Channels help you to keep visibility on how the lead or opportunity entered the system (email, website, referred by an existing customer).

Planning your Next Actions

When a lead has been converted into an opportunity, the latter can be assigned to any salesperson. You might designate an opportunity manager in the company who is responsible for assigning the new opportunities to different salespeople according to the job they do, their location or availability.

Of course, OpenERP allows you to automate such steps in your sales cycle. WithAutomated Rules you can tell the system for instance to automatically assign opportunities to a sales person or to change the

status of an opportunity according to specific criteria.

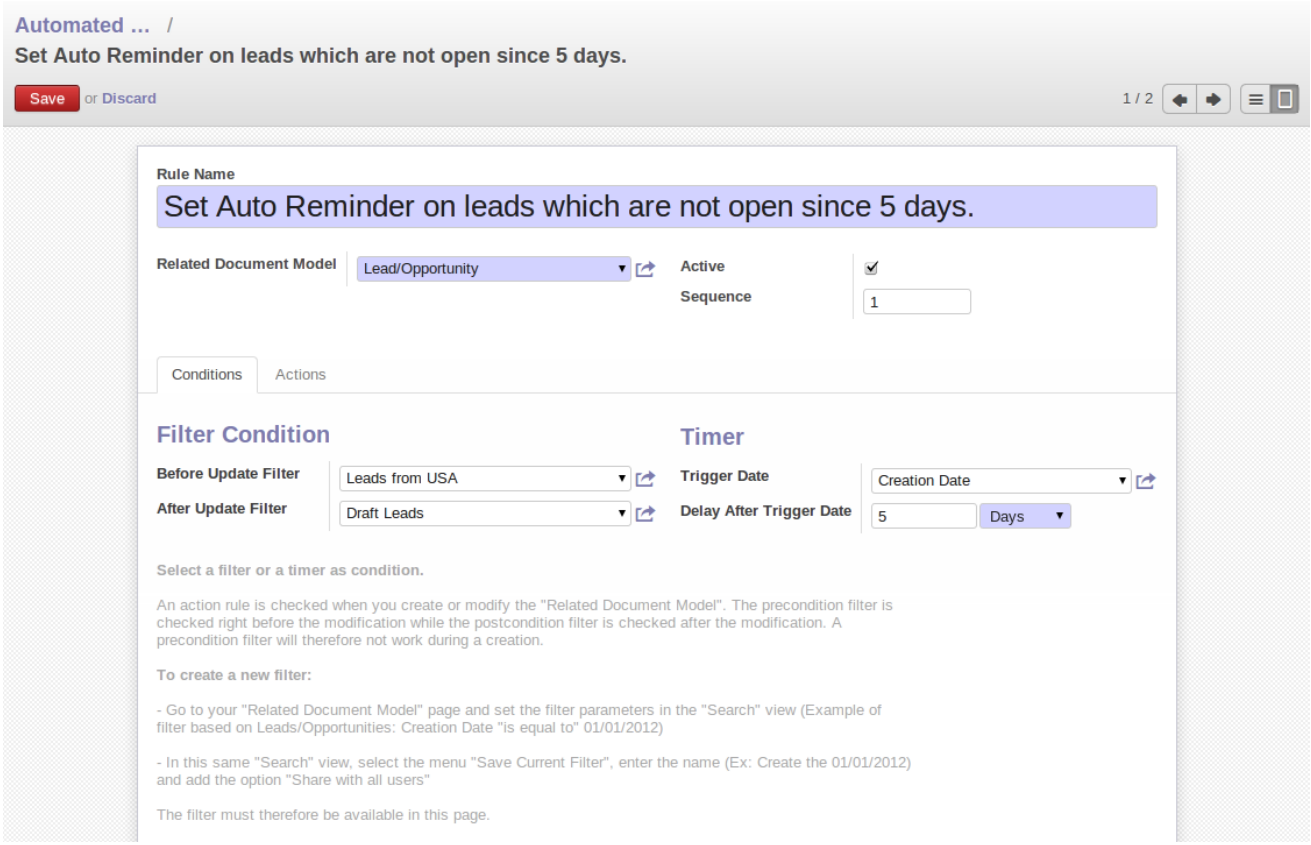
Bemerkung - Automated Actions

To access the CRM rules, use the ***Settings*** ▸ ***Technical*** ▸ ***Automated Actions*** ▸ ***Automated Actions*** menu.

Let's give an example of what you can use Automated Actions for. Suppose you want to have OpenERP assign opportunities for customers in the IT Services category directly to Thomas, your IT salesperson. Thomas should be assigned automatically when a lead is converted to an opportunity by clicking the Convert to Opportunity button in the ***Leads*** screen. This can be set through the **Object** field in the Automated Actions form; just select Lead To Opportunity Partner.

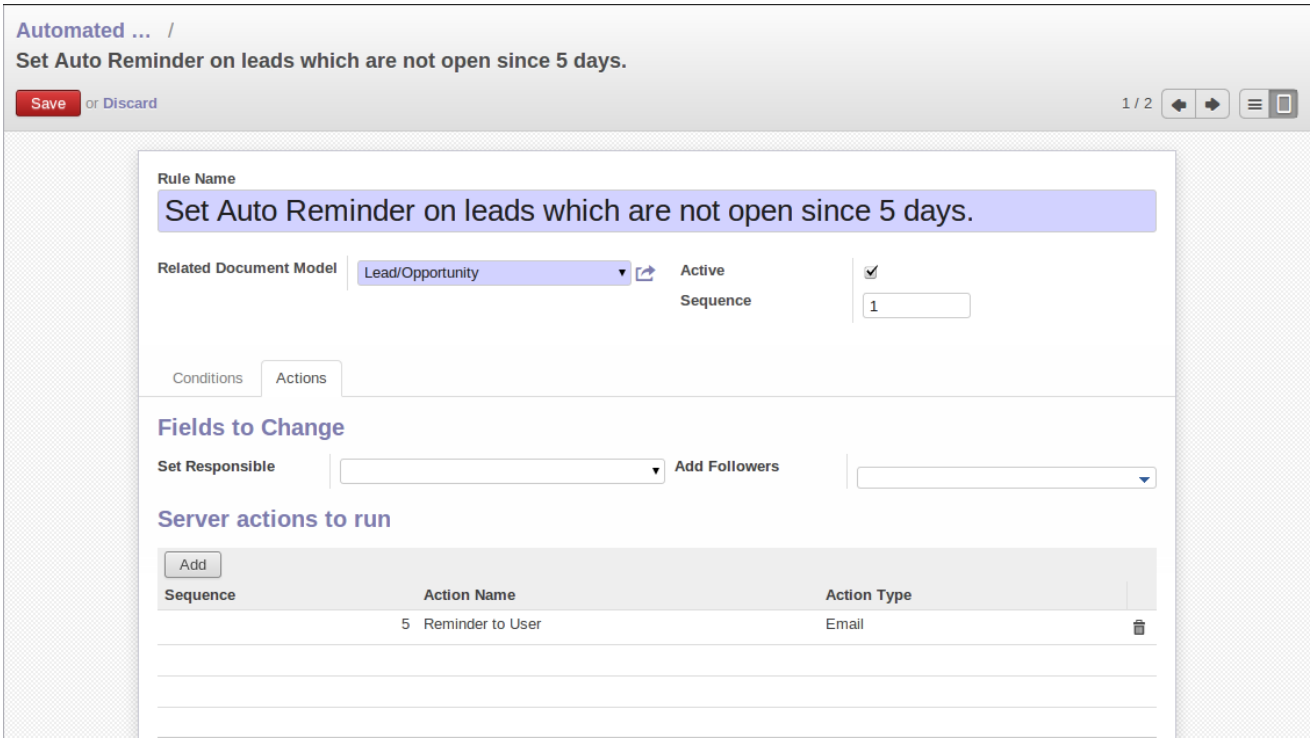
The screenshots below illustrate how you can tell OpenERP to do this automatically for you.

Step 1



Conditions Tab of Automated Actions

Step 2



Actions Tab of Automated Actions

Planning your next actions also refers to filling fields or performing actions manually, without interference of automated rules. It is important that you fill all the opportunity fields accurately. To ensure good follow-up and prioritise your opportunities, make sure to register the **Next Action Date** and the **Next Action** in the Opportunity.

You can use the filters to group by**Priority** and then click the **Next Action Date** column to sort by next action date to easily follow up your opportunities and know exactly what you have to do.

Planning your Meetings & Calls Effectively

Planning your meetings & calls does not only allow you to structure your work, but also to improve your sales skills by learning from your call & meeting history. For both Meetings & Calls, you can enter a complete report of what you discuss!

As explained in chapter ***crm-flow***, you can schedule a meeting directly from an opportunity. When you create a meeting from an opportunity, related fields will be prefilled from the opportunity. For the ease of reading, Thomas will schedule a new meeting from an opportunity here and set Luc, the Sales Manager, as the person responsible for the meeting. He wants to send Luc a reminder 1 day before the meeting starts.

Bemerkung - Schedule a Meeting from an Opportunity

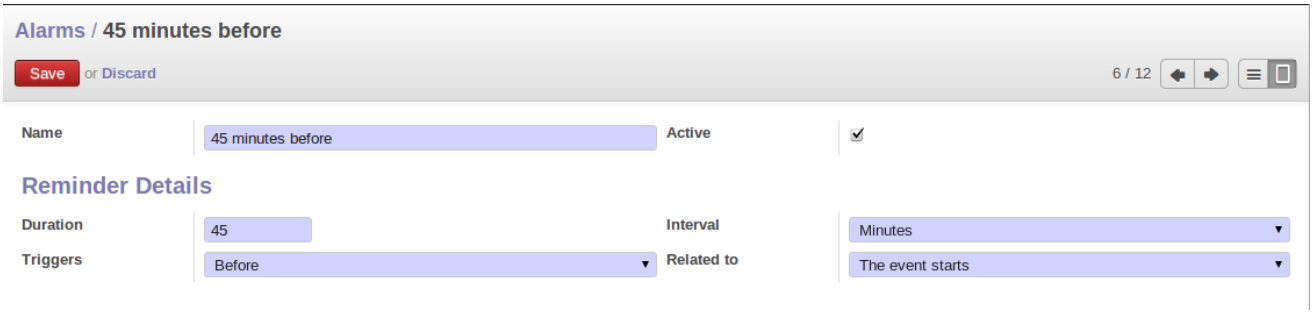
To plan the meeting, Thomas clicks theMeeting button in the **Opportunity** and clicks the Week button in the Calendar view. He uses the drag and drop function to schedule the meeting for Luc. He plans the meeting next Wednesday from 2 pm to 3 pm. He sets Luc as the person responsible and sets a reminder to be send 1 day before the start of the meeting. He also changes the **Next Action Date** in the opportunity to the meeting date.

You can also schedule a meeting directly from a**Customer** form by clicks the Meetings button. If you stay in the Month view of the Calendar, you just have to click the day you want the meeting to be planned, let's say Thursday in two weeks. A meeting form will be displayed, with the name of the customer and the date prefilled.

In the **Meeting** window, enter the meeting data such as meeting subject, Attendees, Tags. In the weekly and daily views, you can also press the left mouse button in the calendar and slide the mouse along to create an event of several hours. OpenERP then opens an entry screen for a new meeting. You can add reminders (or **Alarms**) to your meetings and send invitations, either to persons from your own company, partner contacts or external people (just specify the email address directly in the invitation).

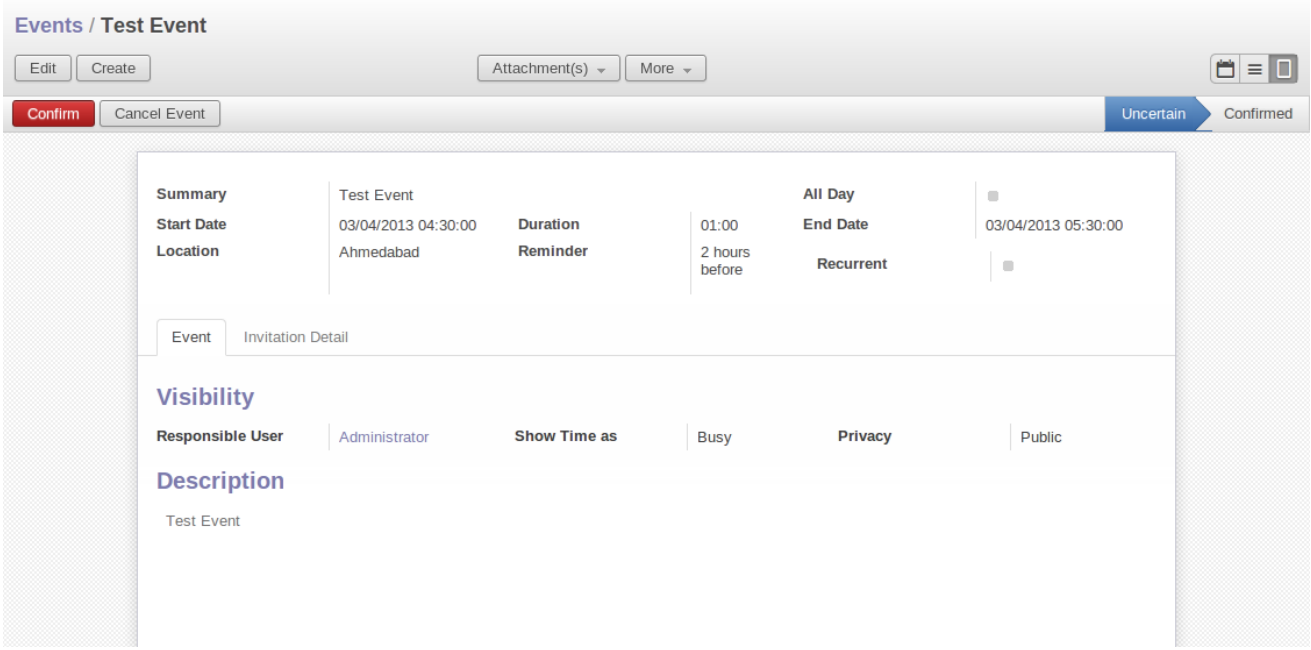
Tipp - Alarms or Meeting Reminders

Add your own alarms through ***Sales*** ▸ ***Configuration*** ▸ ***Calendar*** ▸ ***Alarms*** You might want to be warned one week in advance of the meeting, so all you have to do is create your own alarm. The screenshot below will show you how to do this.



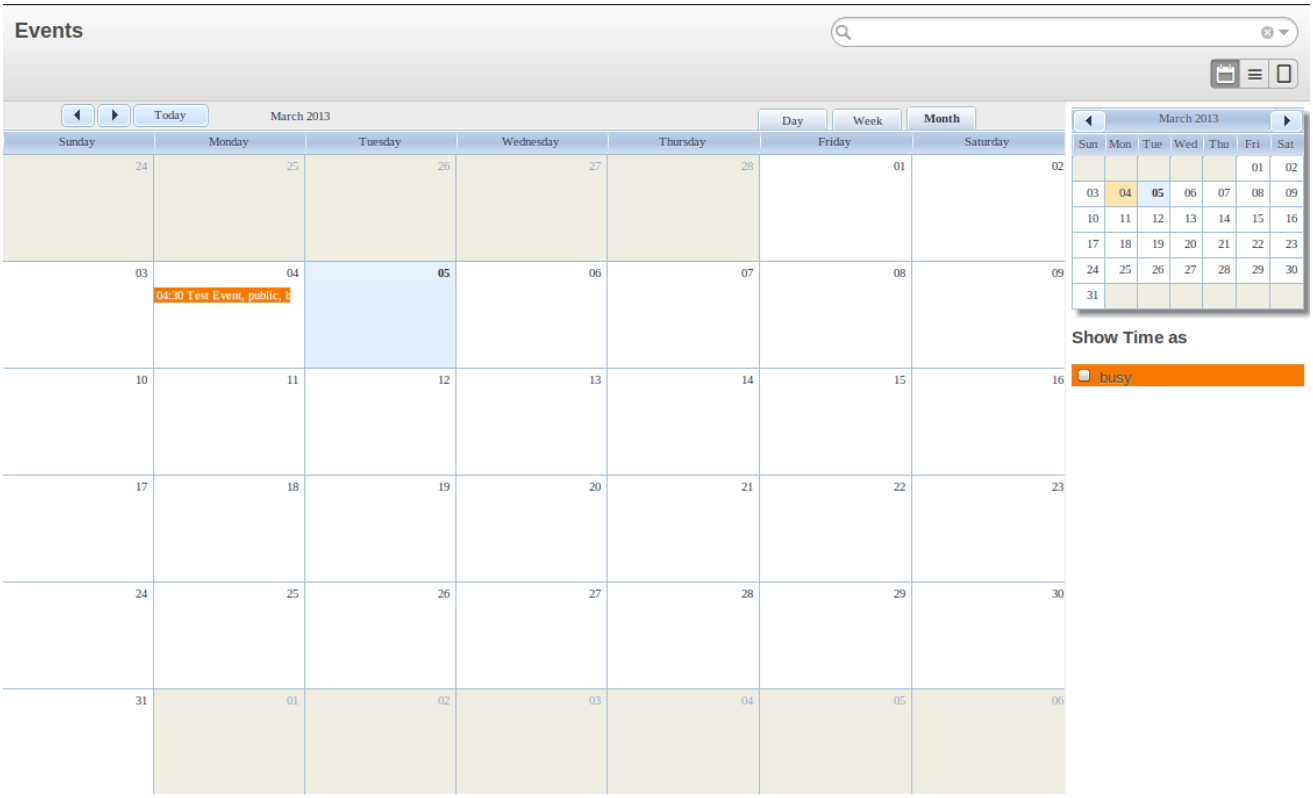
Defining your Own Alarms

Add events through ***Sales*** ▸ ***Configuration*** ▸ ***Calendar*** ▸ ***Events***



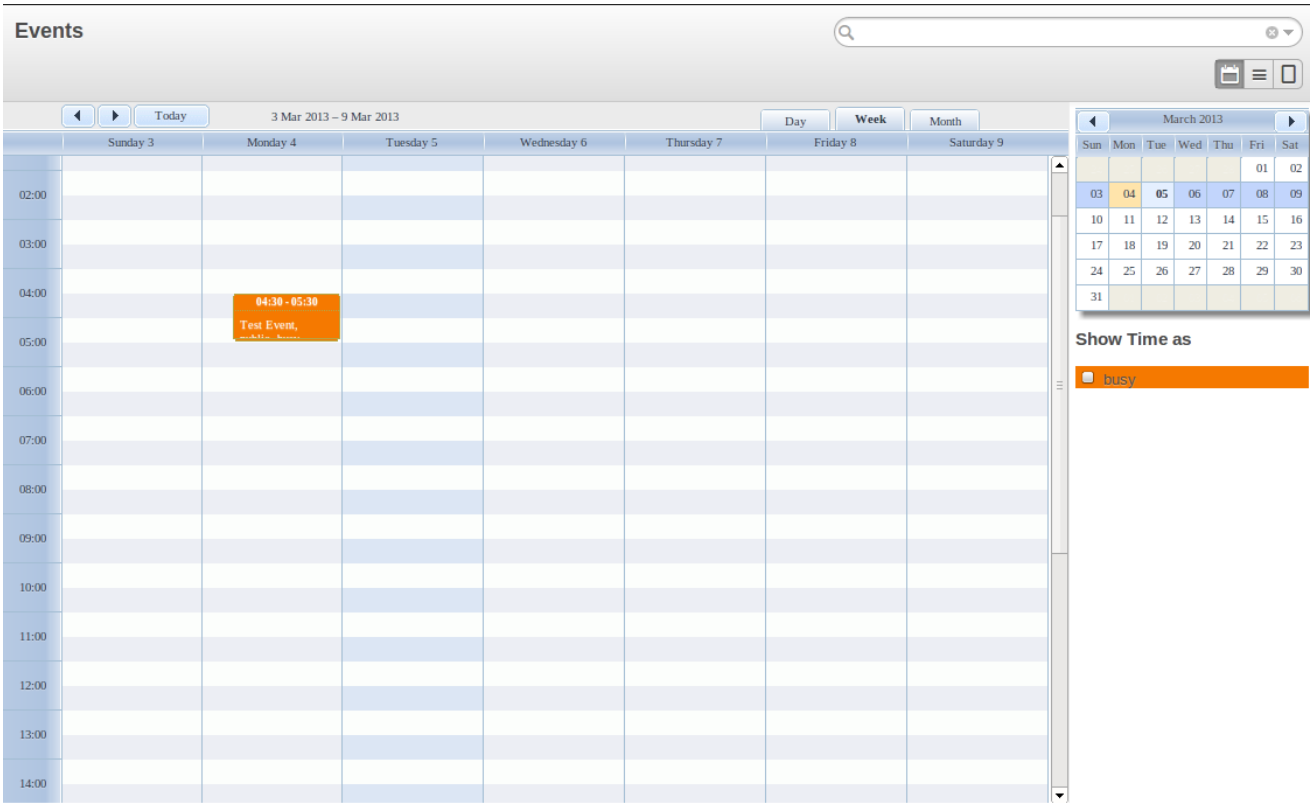
Entering a new Event

You can filter the My Events by selecting them from the list at the right of the screen.



Monthly Meeting Calendar

Weekly meeting Calendar seems like following screenshot.



Weekly Meeting Calendar

You can change the Calendar view for meetings and return to the list, form view by using the buttons at the top right. OpenERP's usual search tools and filters enable you to filter the events displayed in the calendar or, for example, to display the calendar for only some employees at a time.

Tipp - Related Responsible

When you hover your mouse cursor over a meeting in Calendar view, the related responsible will be

displayed.

Of course, you can access this OpenERP calendar from your smartphone. For more information about this feature, please refer to chapter ***ch-sync1***.

OpenERP also allows you to manage incoming (inbound) and outgoing (outbound) calls. Even from the **Phone Calls** list view, you can directly edit a call (change the status, convert it to an opportunity or schedule a meeting). For every call, you can enter notes about the outcome. While on the phone with your prospect or customer, you can directly schedule a meeting, schedule another call or convert your call to an opportunity. There is no need for you to scroll to several menus to do what you have to: plan an action as a result of your call.

Call management may be used for other needs than planning, such as:

- Entering customer calls so that you keep a record of the communication attached to a partner or a sales opportunity,
- Calling out to large lists of prospects,
- Scheduling recurring calls or next actions.

Bemerkung - Schedule a Phone Call directly

Go to ***Sales*** ▸ ***Phone Calls*** ▸ ***Scheduled Calls*** to register incoming calls or Outbound to register outgoing calls.

Of course, OpenERP also allows you to schedule a phone call directly from an **Opportunity** form through the related **Schedule/Log Call** button.

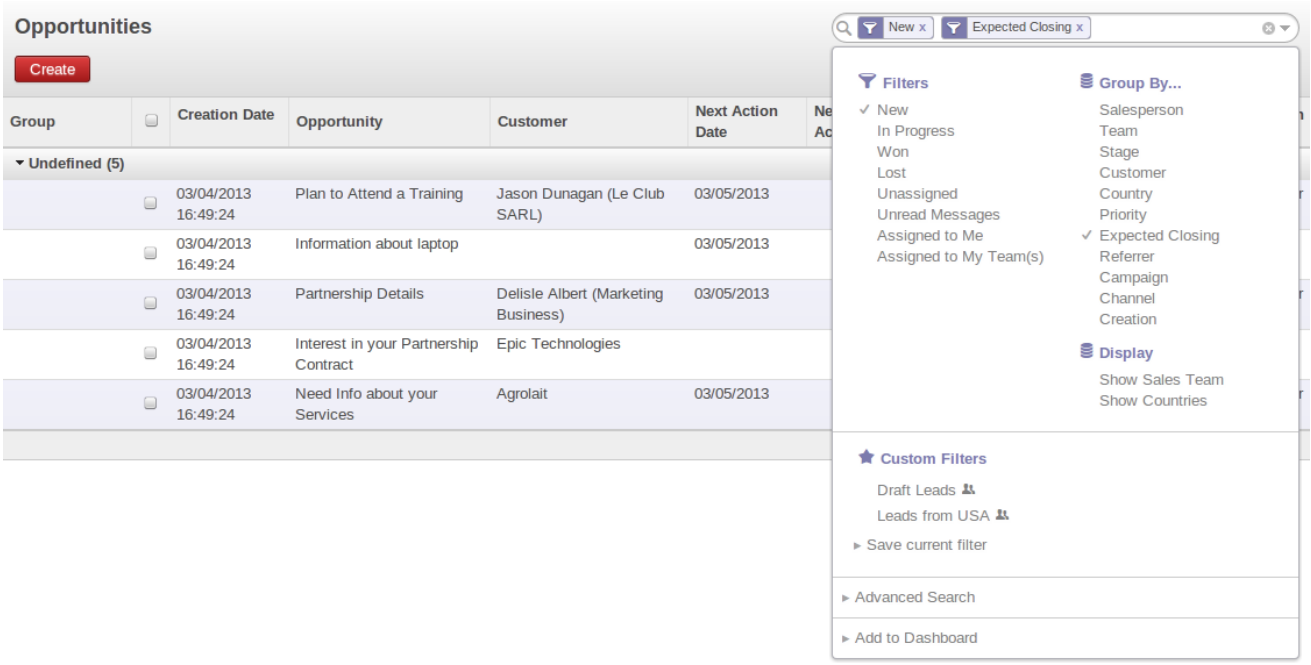
Bemerkung - Phone Calls in Meeting Calendar

To have one calendar with both your meetings and your phone calls, you may choose to enter phone calls as a meeting, with a specific meeting Tags, Phone Call.

Scheduling Closing Dates

To keep track of the coming sales pipeline, you should enter the expected closing date for each opportunity. By doing this, from the **Opportunities** screen you can easily filter your pipeline by Exp. Closing (button in Group by). This is a clear way to forecast the expected revenues. You can also use this filter to check whether the expected closing date has been set.

Simply by adding an expected closing date, the sales team can manage the sales process more efficiently and effectively.



Closing Dates

Managing your Indirect Sales

OpenERP will help you to manage your Channel Partners. You can geolocalize your opportunities by installing typing **crm_partner_assign** module from module list. The module will be installed and the menus ***Sales*** ▸ ***Configuration*** ▸ ***Leads & Opportunities*** ▸ ***Partner Grade*****and *Reporting*** ▸ ***Sales*** ▸ ***Opp. Assignment Analysis*** will be added.

Forwarding Opportunities to Channel Partners

You can use geolocalization to assign and forward opportunities to channel partners.

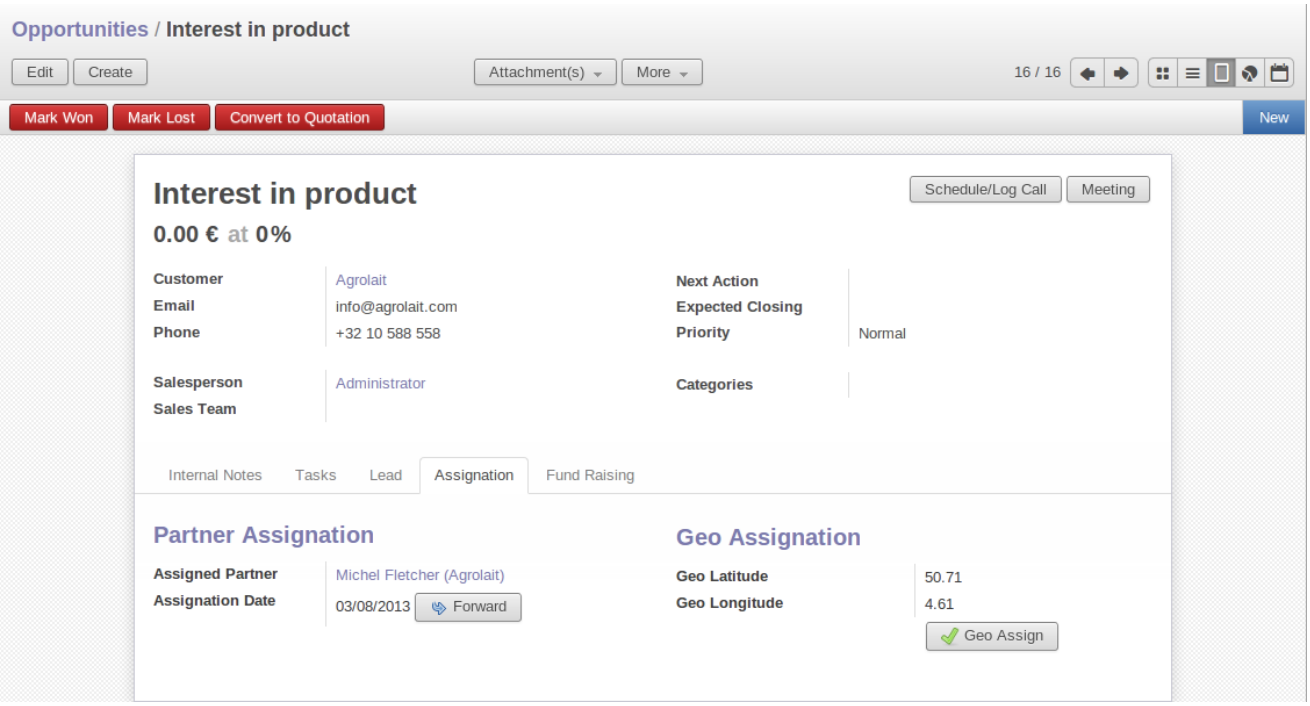
Through ***Sales*** ▸ ***Configuration*** ▸ ***Leads & Opportunities*** ▸ ***Partner Grade*****,** you can create partner grades to classify your partners, such as Gold Partner, Silver Partner, Ready Partner. These grades will be used to determine who gets assigned which kind of opportunities.

Assign the Partner Level on the Geo Localization tab of the Customer form. Also assign aWeight to determine the probability of assigning opportunities to a partner. The weight might for instance be how much the partner pays for their channel partner contract.

How can you tell OpenERP to geolocalize an opportunity?

Either you convert a promising lead to an opportunity, or you go directly to the opportunity you wish to assign to the channel partner. Go to the Assignation tab of the **Opportunities** form, and click the Geo Assign button. The location of the partner in the opportunity will be matched with the geolatitude and the weight of the channel partners. The most appropriate channel partner will be assigned.

For Example,customer(Agrolait) has 2 partners,Michel Fletcher and Thomas Passot in his region. Now,suppose opportunity(Interest in product) has customer Agrolait, and now go to Assignation tab. After clicking Geo Assign button, Assign Partner field shows Michel Fletcher, because Michel Fletcher is one of the partner of Agroalait in nearest region, so it shows that result. The following image shows this example,



Assignation of Partner

Bemerkung - GPS

You can also use the geolocalisation without GPS coordinates.

Now you can decide whether this is the correct channel partner for this opportunity. If you feel that another channel partner would be better to follow up this opportunity , you can change the assigned channel partner.

To automatically inform the channel partner of the new opportunity, proceed as follows.

Click the **Forward** button to automatically send an email to the assigned partner with all the details of the opportunity and the prospect. When forwarding an opportunity to a partner, you can select which information you want to send: Latest email, Whole Story or Case Information. You can add a cc and add attachments to the mail. You can send the mail to the partner (any contact person you want), to an OpenERP user or to an email address you specify.

To allow your salespeople to keep a view on forwarded opportunities, the assigned opportunity will be displayed for the selected channel partner on the Geo Localization tab of the **Customer** form.

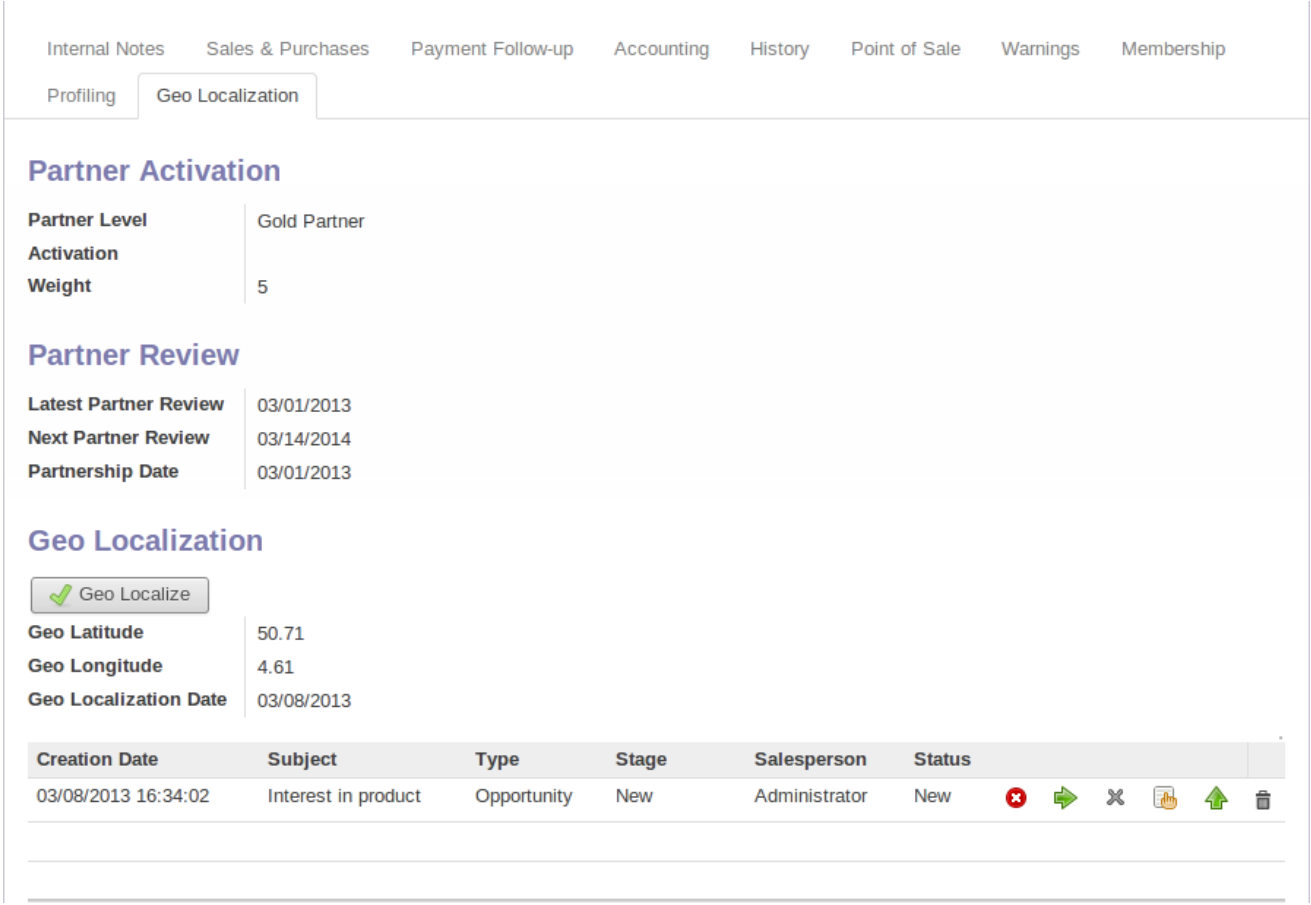
Use the **Opportunity Assignment Analysis** for your reporting, you can use the menu Reporting ▸ Sales ▸ Opp. Assignment Analysis.

Geolocalization of a Partner

To determine the geographic location of your partners, you do not have to enter the GPS coordinates yourself. OpenERP can do this for you. All you have to do is click the **Geo Localize** button in the **Customer** form. The GPS coordinates will now be filled according to the address of the partner.

In the partner form, the Geo Localization tab gives you the information you need.

As explain in above example of Assign Partner , assign partner is Michel, so he has this opportunity and it is shown in following image.

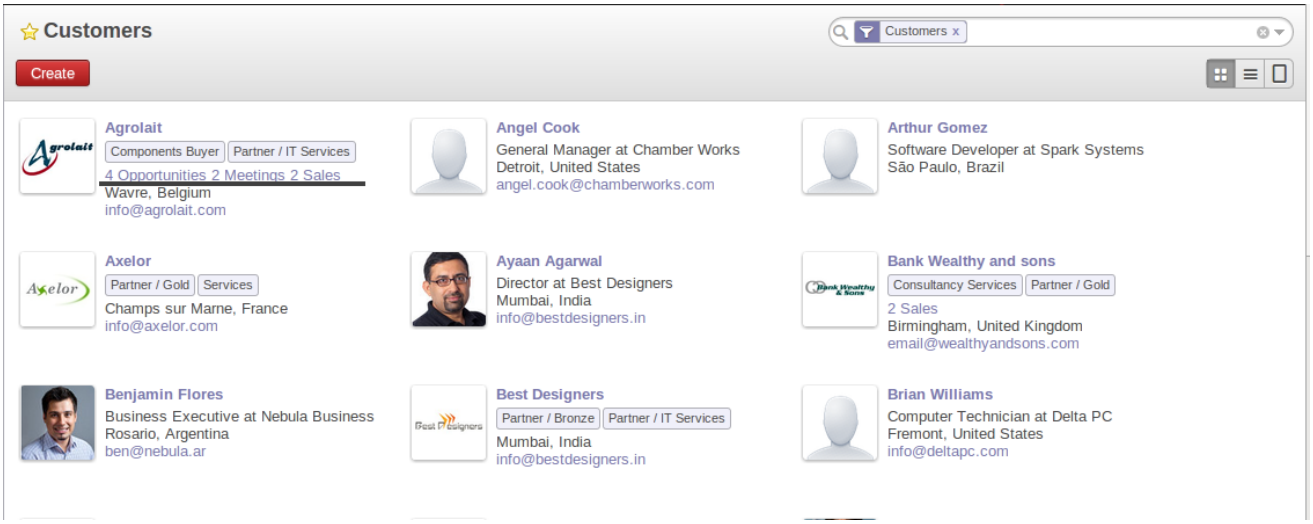


Geolocalizing a Partner

Keeping Track of your Communications

Tracking your Customer's History

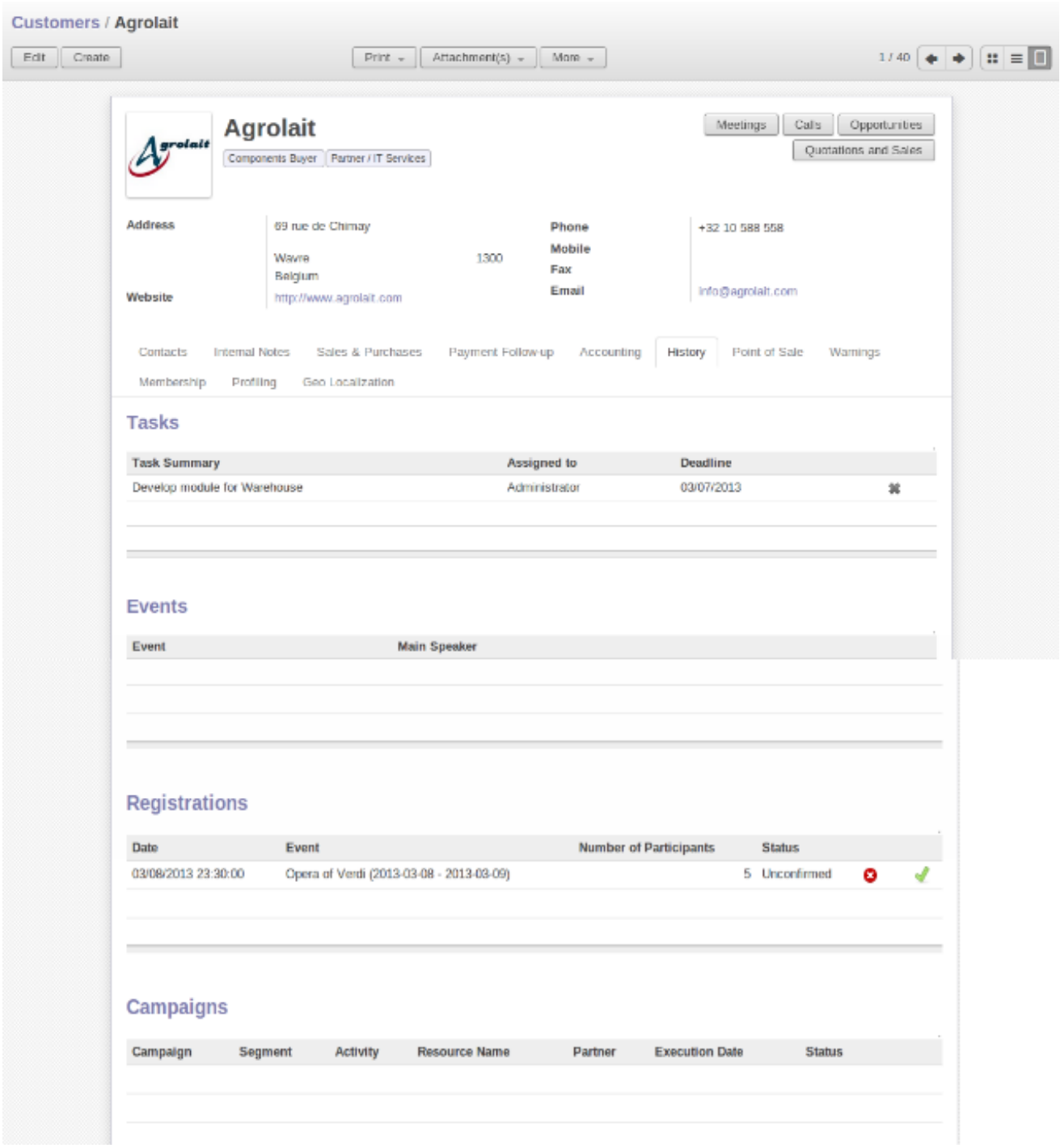
Information related to leads & opportunities, meetings, phone calls, sales and purchase, marketing campaigns and emails will be tracked in OpenERP. You can see all above information of customer in its kanban view,it seems like follow.



Customer Kanban view

From above example , you can see 4 opportunities , 2 Meetings , 2 Sales. You can click on any one of them and will find the related information. The other option for view the customer information is , in customer form view , you can see the buttons related it in upper right side of the corner.

The activities are automatically reported in the form of the customer. To have a complete overview of the activities for a customer, all you have to do is open the **Customer** form and click the History tab. As you will notice in the screenshot below, this is not merely a report. This tab contains informations like tasks, events , Registrations , Campaigns . From this tab, you can also plan new activities for the customer or change existing activities!



History of Activities in a Customer Form

Tracking Sales Orders

After intensive opportunity qualification, your customer asks you to make a quotation. You can easily do this from the corresponding opportunity! Just click the **Convert to Quote** button and OpenERP will create a sales quotation ready for you to be edited. A sales quotation is an unconfirmed sales order. On the quotation, the Source document it was created from (in this case the opportunity) is displayed, to allow you to keep track of which opportunity is linked to which sales quotation / order.

To review the quotation later, you can access it from the ***Sales*** ▸ ***Sales*** ▸ ***Sales Orders*** menu. On the Other Information tab of the sales quotation, you can find the source document to the related sales quotation / order that has been created from the opportunity concerned.

For more information about sales orders, please refer to the chapter ***part4-crm-sales***.

Storing Attached Documents

For any object in OpenERP, for instance a lead, opportunity, customer, you can attach external documents. Suppose you send a product folder to one of your customers, and to make sure you know exactly which version of the document he received, you can keep it as an attachment in OpenERP.

To attach whatever type of document to the customer, you just have to go to the ***Sales*** ▸ ***Customers*** menu.

Open the Customer form of the selected partner, and click the Add button in the Action bar, just below Attachments. Then navigate to the location where the product folder is stored, just like you would do in your file explorer. Click the product folder, and then confirm.

The product folder is now stored in OpenERP as an attachment for the customer. You can open it by clicking the document in Attachments.

OpenERP allows you to add as many attachments as needed. Combined with the Knowledge application, OpenERP will index documents of the type .doc, .pdf, .sxw and .odt, so that you can effortlessly search through their content.

Bemerkung - File Storage

If you do not install the Document Management system (Knowledge application) then the attachments in OpenERP are stored directly in the database. Once the document management system has been installed, the contents of the files are no longer stored in the database, but on the OpenERP server file system.

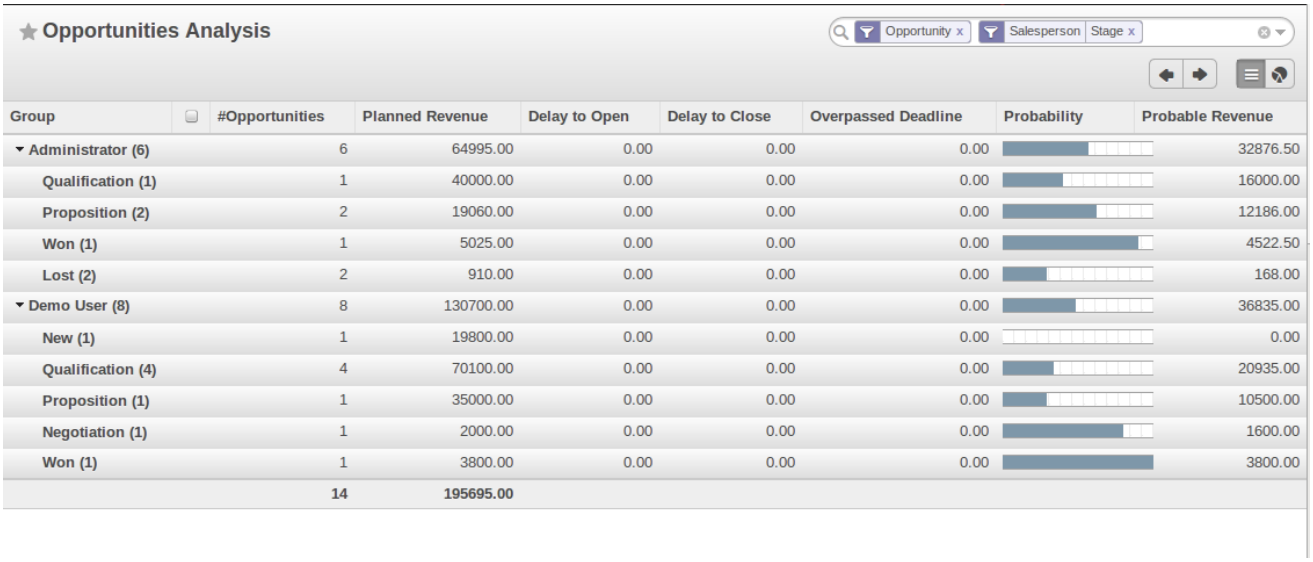
You can then read and add attachments to OpenERP quite independently of the OpenERP interface or the FTP server using simple drag and drop.

For more information about the Knowledge and Document Management System, please refer to the online documentation.

Analysing your Sales Performance

Organizing Sales Funnel Reviews

Through the **Opportunities Analysis**, ***Reporting*** ▸ ***Sales***, you can keep track of your sales funnel. The analysis report gives you instant access to your opportunities displaying information such as planned revenue, probable revenue, overpassed deadline or the number of interactions per opportunity. This report is perfect for the Sales Manager to periodically review the sales pipeline with the salesteams concerned.



Group	#Opportunities	Planned Revenue	Delay to Open	Delay to Close	Overpassed Deadline	Probability	Probable Revenue
Administrator (6)	6	64995.00	0.00	0.00	0.00		32876.50
Qualification (1)	1	40000.00	0.00	0.00	0.00		16000.00
Proposition (2)	2	19060.00	0.00	0.00	0.00		12186.00
Won (1)	1	5025.00	0.00	0.00	0.00		4522.50
Lost (2)	2	910.00	0.00	0.00	0.00		168.00
Demo User (8)	8	130700.00	0.00	0.00	0.00		36835.00
New (1)	1	19800.00	0.00	0.00	0.00		0.00
Qualification (4)	4	70100.00	0.00	0.00	0.00		20935.00
Proposition (1)	1	35000.00	0.00	0.00	0.00		10500.00
Negotiation (1)	1	2000.00	0.00	0.00	0.00		1600.00
Won (1)	1	3800.00	0.00	0.00	0.00		3800.00
	14	195695.00					

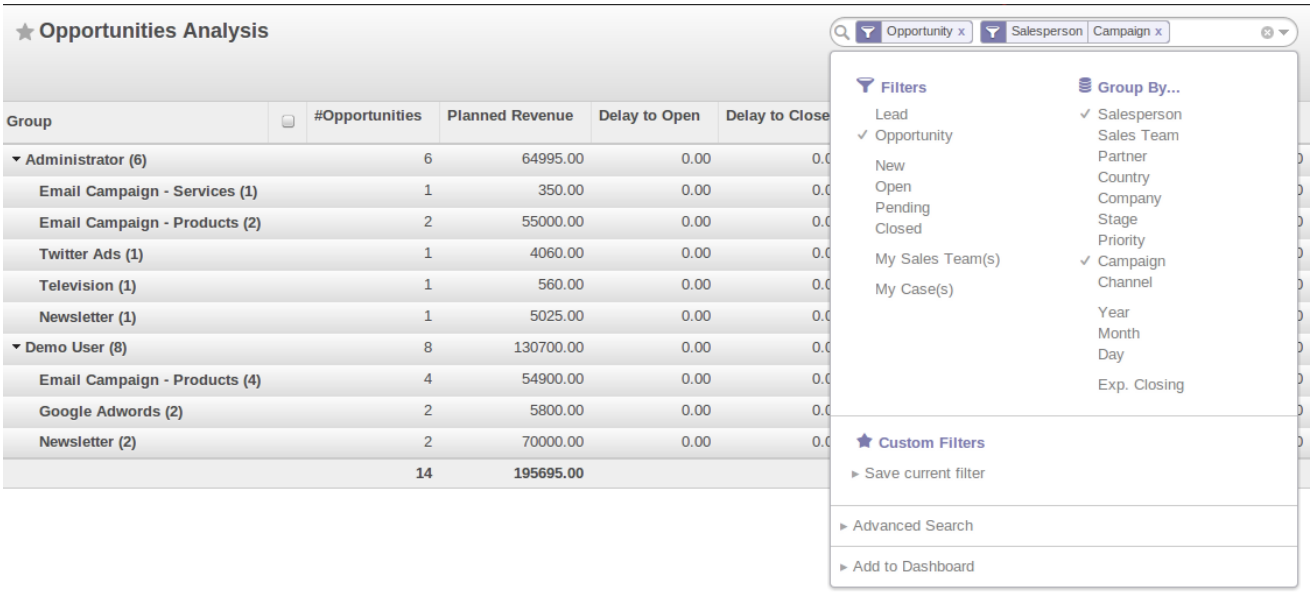
Sales Funnel Review

The powerful Advanced Search View allows you to customize your analysis reports by using Group by features.

You can select specific options to filter your opportunities. For example, when you select a partner here and type partner name, only opportunities related to that specific partner will be displayed.

You can also filter the information of an opportunity according to theGroup by features. Suppose you want to analyse your opportunities by campaign and by salesperson. When you open the **Opportunities Analysis** screen, you will notice that the opportunities are by default grouped by salesperson (see Salesperson button in the Group by area).

Since you want to group byCampaign first, click the Salesman button to uncheck it. Just click the Campaign button, then click Salesperson to get the report you want.



Group	#Opportunities	Planned Revenue	Delay to Open	Delay to Close
Administrator (6)	6	64995.00	0.00	0.0
Email Campaign - Services (1)	1	350.00	0.00	0.0
Email Campaign - Products (2)	2	55000.00	0.00	0.0
Twitter Ads (1)	1	4060.00	0.00	0.0
Television (1)	1	560.00	0.00	0.0
Newsletter (1)	1	5025.00	0.00	0.0
Demo User (8)	8	130700.00	0.00	0.0
Email Campaign - Products (4)	4	54900.00	0.00	0.0
Google Adwords (2)	2	5800.00	0.00	0.0
Newsletter (2)	2	70000.00	0.00	0.0
	14	195695.00		

Opportunities Analysis

Some examples of how you could use the**Opportunities Analysis** report to analyse your opportunities in various ways.

- 1. **Customers with Open Opportunities**:

  Group by Partner, check the Open to provide a list with the customer names and the number

of draft / open opportunities.

- 2. **Closed Opportunities**:

  Check the Closed on filters, then group by State, then by Stage to display a list of closed opportunities divided by stage (lost and won).

- 3. **Opportunity Sources**:

  The number of opportunities can be displayed by closing date and sales stage, including Planned Revenue. Select only the Closed opportunities, group by Date, then by Stage to obtain this view.

- 4. **Opportunity Pipeline**:

  To get an idea of what your salesperson's pipeline is like (or sales team), including the planned sales volume, select the Open and group by Salesman (or Sales Team).

- 5. **Opportunities by Category**:

  Click the Graph button in the Opportunities screen to display the report as a Graph.

Tipp - Graph

You can also display the **Opportunities Analysis** screen as a graph.

Driving your Marketing Campaigns

Lead Automation with Marketing Campaigns

OpenERP offers a set of modules allowing you to easily create and track your Marketing Campaigns. With the **Marketing** application, you define your direct marketing campaigns, allowing you to automate your lead communication. You can install it by installing the marketing module from the list of modules.

Campaigns can be displayed in List or Diagram view. The Diagram view allows you to clearly see the marketing actions (represented by a node) and the applied conditions (represented by an arrow).

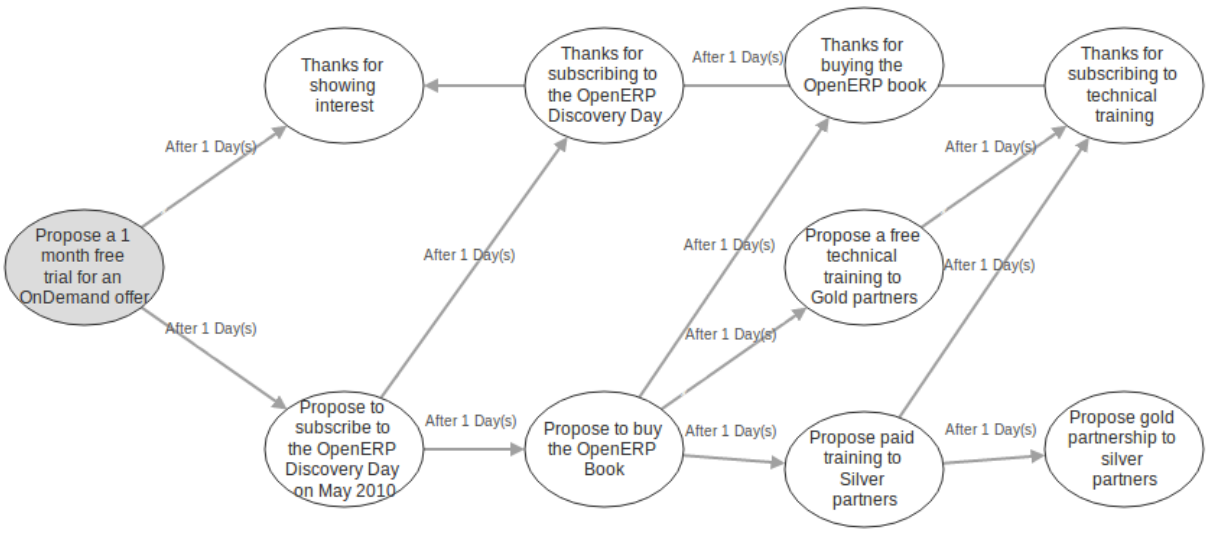


Diagram View of a Campaign

A marketing campaign is an event or an activity that will help you manage and reach your partners with specific messages. A campaign can have many activities that will be triggered from a specific situation, for instance a response from a contact to an email you sent. The result of such a response (action) could be the sending of an email, for which a template has previously been created in OpenERP.

To use the email functionality, you have to configure your email account. This is explained in the chapter ***ch-crm-fetchmail-install***.

Example of a Complete Marketing Campaign

Suppose we are an insurance company that wants to launch a marketing campaign to generate new leads. The company launches a campaign on its website and proposes potential customers to get a free offer for their car insurance.

Each time a customer registers himself through the contact form, a lead is created in OpenERP. For further information about web contact forms, please refer to the chapter *Automating your Lead Acquisition*.

The salesperson responsible for Car Insurances triggers the marketing campaign by sending an introductory email of all the insurance services we offer and thanking for subscribing for the free Car Insurance Offer.

Based on the response, the insurance company plots whether the lead is interested in:

- Buying a Car Insurance,
- Information about other Insurance policies,
- Buying the book about Keeping your Children Safe.

According to the replies we receive from the leads, we send an email catering their respective needs.

- If they respond back to such an email, the lead is converted into an opportunity. When the lead buys a car insurance, the lead becomes our partner and is created as a customer in OpenERP.
- If we do not receive an answer, they get a reminder regarding the offer a week later. If they still do not answer, our salesperson gives a voluntary call to ask about their needs.

See it as a flowchart allowing us to trigger a respective activity for every possible cue. The chances of leads going unattended become very low, and for every lead, we have a predefined method of handling it.

Moreover, we can measure the method according to our goals. Based on the goals we can evaluate the effectiveness of our campaign and analyze whether there is room for improvement.

Tipp - Campaign Example

To a get an example of a complete campaign in OpenERP, you can install the **marketing_campaign_crm_demo** module or you can also go to**Settings ▸ Configuration ▸ Marketing** tick the Marketing Campaigns and Demo Data for Marketing Campaigns then click on Apply ...

Designing your Campaigns

Designing a marketing campaign is mostly a long term process and the success of any campaign depends

on the research and the effectiveness in selecting your target audience for the campaign. There are certain questions that every marketeer always asks while designing a campaign.

- What would be our marketing campaign?
- Who would be the target audience?
- How would we measure the effectiveness of our campaign?

The OpenERP campaign is based on the principle of ***lead automation***. A lead is created according to a specific response by a customer towards a stimulus. An example: filling the car insurance calculator on your website may create a lead in OpenERP.

The first step is to define the campaign, i.e. the sequence of steps to be performed. By defining the campaign, we trigger a set of activities in the **Marketing Campaign** application of OpenERP.

From the lead automation, we define the sequence of steps we ought to follow, the modes of creating and processing these activities and the cost involved in this campaign. After each activity and based on its respective stimuli, we can trigger the next event of the campaign concerned.

Segmenting your Campaigns

The two most important points for any successful campaign are the adoption of a concrete methodology of execution and choosing the right segment: a target loop of customers to whom our campaign would be directed (i.e. your target audience). Inappropriate focus on the wrong segment would result in the campaign being misfired and our efforts would reach deaf ears.

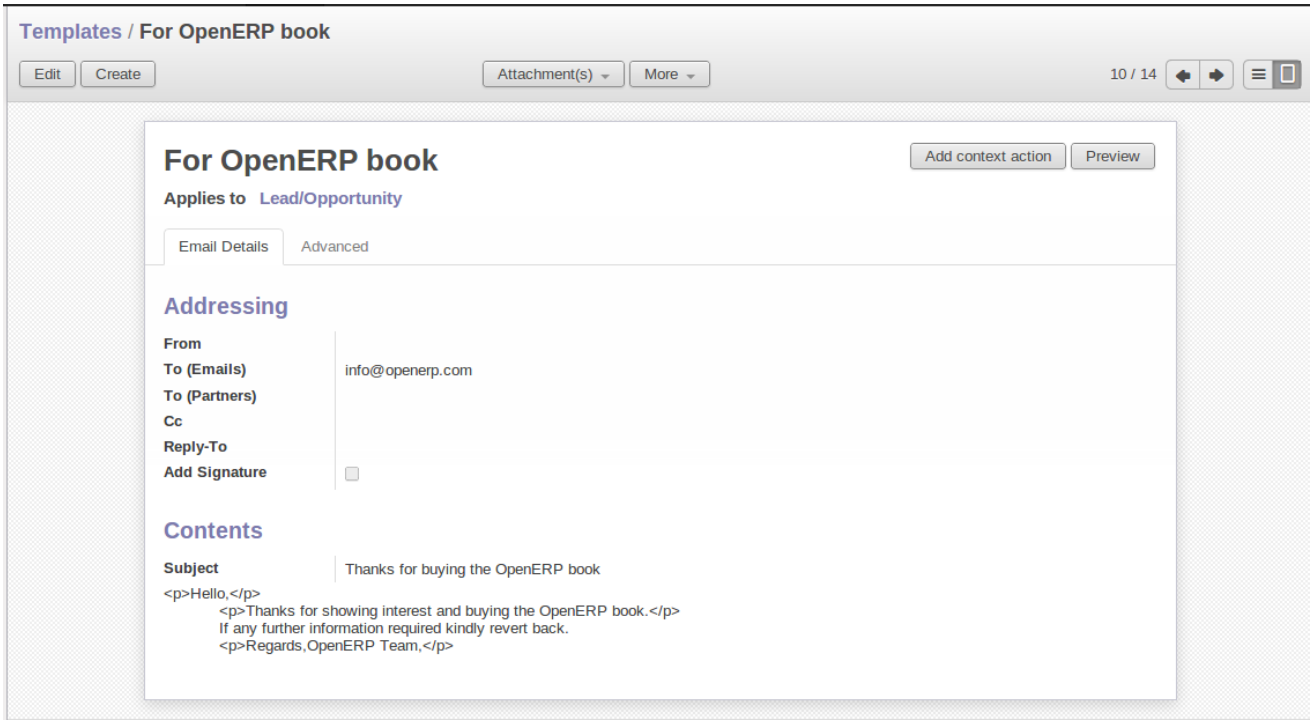
Through the Segment in the **Campaign** module, we can define our segment for each Campaign activity. Indeed, it is perfectly well possible that with every step downwards, the segment gets narrowed in terms of number. You can also synchronize the entire campaign steps according to the defined segments.

Our insurance company wants to attack the Spanish market, and will define a segment called Spanish Leads. Of course you would want your segment to be valid for leads coming from Spain only. To achieve this, go to the **Leads** list view. Filter all the leads for Spain (type ***Spain*** in the Search box and filter by country), make sure to uncheck the salesteam, so that all leads coming from Spain will be selected. Then click Save Filter in Custom Filters and call it for instance ***Spanish Leads***. Now return to the **Campaigns** menu and open the Segment, then click the **Filter** field to select ***Spanish Leads***. The segment will now only apply to Spanish leads.

As you can see, the **Marketing Campaign** module is closely synchronized with the **Customer Relationship Management** Business Application. Let us consider the segment we cater in the campaign as Leads in OpenERP. Goals are set for each campaign, which would be considered as a desired state. Once a lead meets our objective criteria of goals, we change the lead status by converting it into an **Opportunity**, meaning that we should give focused attention.

Once the lead satisfies our final objective, we would consider it as a partner/customer and close that lead.

Email Templates



Email Template

OpenERP allows you to create your own email templates. You can configure your email template(s) from the **Settings ▸ Technical ▸ Email ▸ Template** You can use the Expression Builder to have the variables created for you. Suppose you would like to add the Contact Name in the email, but of course, this will be a different name for each email.

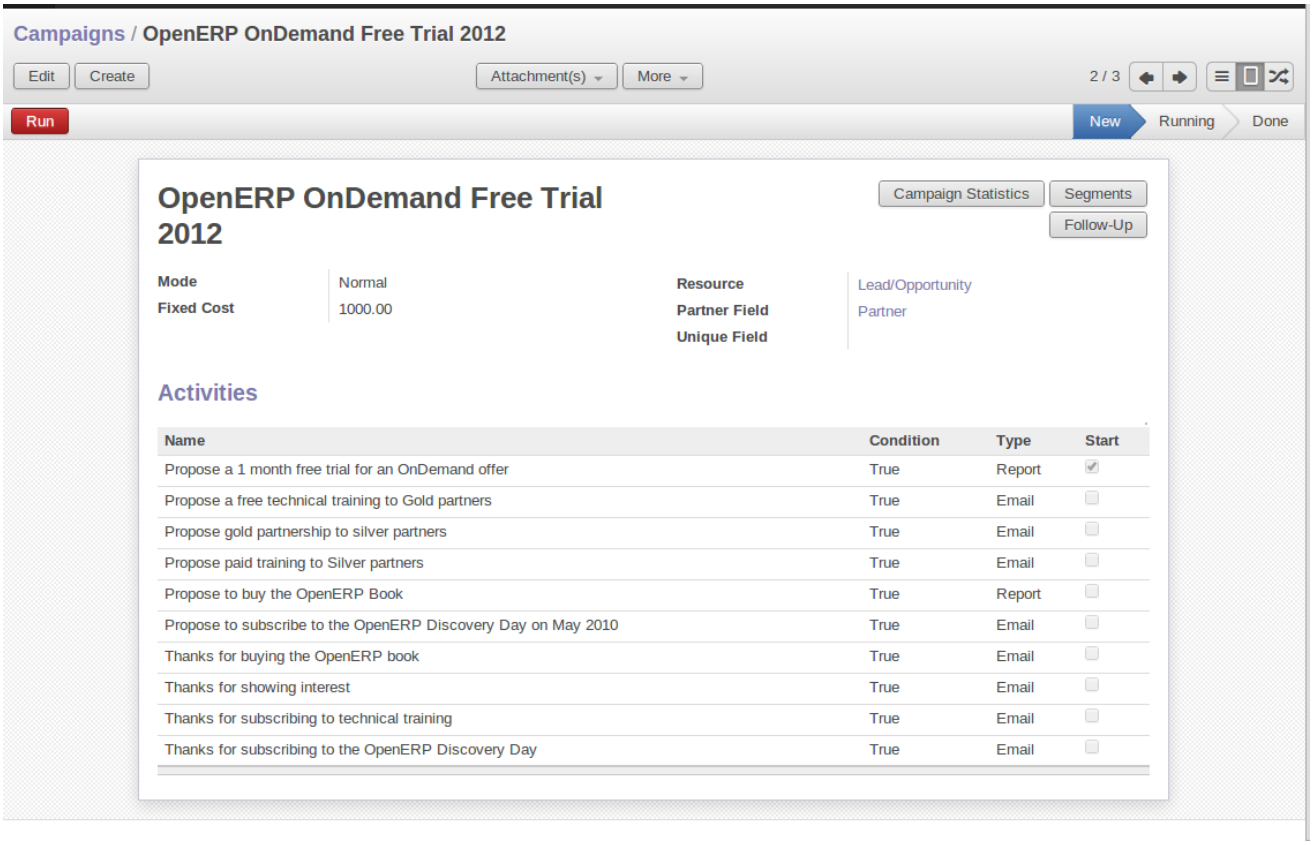
In the Dynamic Value Builder, in **Field**, select Contact Name. Automatically, the **Placeholder Expression** will be filled. Copy the value from the expression and paste it in your email, e.g. Dear ${object.contact_name}. So your email will start with Dear followed by the name of the contact. This way you automatically create personalized emails.

For each email template, you can haServicesve OpenERP generate a Action / Button that will be related to the object. So if you choose to do marketing campaigns for leads click on Add context action button of Email template form, the action will be added to the top panel of the **Lead** form.

Tipp - Configuring Marketing Campaigns

Please notice that it requires some technical knowledge to configure Marketing Campaigns. To be able to see, create, edit campaign, users need to be in the Marketing / User group.

Setting up your Marketing Campaigns



Marketing Campaign

0. Introduction

   A campaign defines a workflow of activities that items/objects entering the campaign will go through. Items are selected by segments. Segments are automatically processed every few hours and inject new items into the campaign, according to a given set of criteria. It is possible to watch the campaign as it is running, by following the campaign "workitems". A workitem represents a given object/item passing through a given campaign activity. See it as a step that still can go either way. Workitems are left behind when the item proceeds to the next activities. This allows an easy analysis and reporting on the running campaign. Each activity may execute an action upon activation depending on a dynamic condition. When the condition is not met, the workitem is cancelled/deleted; if the condition is met, the action is executed, the workitem is marked as Done, and propagated to the next activities.

1. Campaigns (***Marketing ▸ Campaigns ▸ Campaigns***)

   Campaign
   Each campaign is made of activities and transitions, and must be defined on any specific object the system knows about (e.g. Leads, Opportunities, Employees, Partners).

   Mode: A campaign can be in one of 4 modes

   - Test Directly: processes the whole campaign in one go, ignoring any delay put on transitions, and does not actually execute the actions, so the result is simply the set of corresponding campaign workitems (see below). Any time a segment adds new items in the campaign they will be processed in the same manner.
   - Test in Real time: processes the campaign but does not actually execute the actions, so the result is simply the set of corresponding campaign workitems. Any time a segment adds new items in the campaign they will be processed in the same manner.

- Manual confirmation: No action will be executed automatically, a human intervention is needed to let workitems proceed into the flow. It is like a step-by-step manual process using the Campaign Followup menu. You can ignore the time delays and force any step of the campaign, implementing the campaign at your pace i.e. (you have a test email and want to see if the steps and templates do exactly what you want them to do). You will see that the actions set are defined as To Do and Done and the page has to be refreshed to see the next activities defined by the campaign node: the campaign sends real messages to the actual targets, be warned.
- Normal: the campaign is processed normally, all actions are executed automatically at the scheduled date. Pay attention that in this status, the campaign sends real messages to the actual target audience.

> Regardless of the current mode of the campaign, any workitem can be manually executed or cancelled at any time (even if it is scheduled in the future) through ***Campaign Followup***.

Resource

> Specifies where the campaign will get the information from, i.e. the OpenERP object linked (e.g. Leads, Opportunities, Employees, Partners).

Activities

> Activities are steps in the campaign. Each activity is optionally linked to previous and next activities through transitions.
>
> Each activity has:
>
> - one optional condition that stops the campaign,
> - one action to be executed when the activity is activated and the condition is True (could be a 'do nothing' action),
> - one optional signal (ignore it),
> - a start flag.

Start Activity

> Activities that have the Start checkbox set, will receive a new workitem corresponding to each new resource/object entering the campaign. It is possible to have more than one Start Activity, but not less than one.

Activity Conditions

> [a Boolean expression, made of clauses combined using boolean operators: AND, OR, NOT] Each condition is the criterion that decides whether the activity is going to be activated for a given workitem, or just cancelled. It is an arbitrary expression composed of simple tests on attributes of the object, possibly combined using ***or***, ***and*** & ***not*** operators.
>
> The individual tests can use the "object" name to refer to the object/resource it originates from (e.g the lead), using a "dot notation" to refer to its attributes. Some examples on a CRM

> Lead resource:
>
> - object.name == 'Insurance Offer Lead' would select only leads whose title is exactly "Insurance Offer Lead",
> - object.state == 'pending' would select Pending leads only,
> - object.country_id.code == 'be' would select leads whose country field is set to Belgium,
> - object.country_id.name == 'Belgium' would select leads whose country field is set to Belgium.

> Tests can also use a 'workitem' name to refer to the actual item denoting the position of the object in the campaign. This can be useful to access some specific attributes, such as the segment that selected this item. Some examples:

- workitem.segment_id.name == 'Insurance Offer EU Zone1 - Industry Consulting/Technology' would select leads that entered this campaign through the "Insurance Offer Lead EU Zone1 - Industry Consulting/Technology" segment,
- 'EU Zone1' in workitem.segment_id.name would select only leads that entered the campaign through a segment that has "EU Zone1" in its name.

> **Tipp - Help**
>
> In the Web client you can use "User > About OpenERP > Active the developer mode " to see the attribute name of every field in a form. These are the same that you can use during import/export with CSV files.

You can also use the special formula re.search(PATTERN_TO_SEARCH, ATTRIBUTE_TO_SEARCH) where PATTERN_TO_SEARCH is a character string delimited with quotes, and ATTRIBUTE_TO_SEARCH uses the dot notation above to refer to a field of the object. An example for CRM leads:

- re.search('Plan to buy: True', object.description) would be true if the Notes on a Lead contain this text: "Plan to buy: True". Be careful that all spaces etc. do matter, so you may use the special pattern characters as detailed at the bottom to account for small variations,
- re.search('Plan to.*True', object.description) would be true if the Notes on a Lead contain this text: "Plan to" followed later on by "True".

You can combine individual tests using boolean operators and parentheses. Some examples on a CRM Lead resource:

- object.state != 'pending' and (re.search('Plan to by:.*True',object.description) and not re.search('Plan to use:.*True',object.description)) would be true if the lead is NOT in Pending state and it contains "Plan to buy", but not "Plan to use".

Guidelines for Creating a Campaign

> - It is a good idea to have an initial activity that will change some fields on the objects entering the campaign to mark them as such, to avoid mixing them in other processes (e.g. set a specific state and Sales Team on a CRM lead being processed by a campaign). You can also define a time delay so that the campaign seems more human (note if the answer comes in a

matter of seconds or minutes it is computer generated).

- Put a stop condition on each subsequent activity in the campaign to get items out of the campaign as soon as the goal is achieved (e.g. every activity has a partial condition on the state of the item, if CRM Leads stops being Pending, the campaign ends for that case).

2. Email Templates (***Settings*** ▸ ***Technical*** ▸ ***Email*** ▸ ***Templates***)

   Email templates are composed of the following information:

   - The Email headers: to, from, cc, bcc, subject
   - The raw HTML body, with the low-level markup and formatting
   - The plaintext body

   Headers and bodies can contain placeholders for dynamic contents that will be replaced in the final email with the actual content.

3. Campaign Segments

   Segments are processed automatically according to a predefined schedule set in the menu ***Setting*** ▸ ***Technical*** ▸ ***Scheduler*** ▸ ***Scheduled Actions***. It could be set to process every 4 hours or every minute for example. This is the only entry point in a campaign at the moment.

   Segment filters

   Segments select resources via filters, exactly the same kind of filter that can be used in advanced search views on any list in OpenERP. You can actually create them easily from any OpenERP screen allowing you to save filters. Save your advanced search criteria as a new filters and add them to the segment in the **Filter** field. Filters mainly consist in a domain expressing the criteria of selection on a model (the resource). See section 10.3 for more information on the syntax for these filters.

   For Leads, the following filter would select draft Leads from any European country with "Plan for use: True" or "Plan for buy: False" specified in the body:

   [('type','=','lead'),
   ('state', '=', 'draft'), ('country_id.name', 'in', ['Belgium', 'Netherlands', 'Luxembourg', 'United Kingdom', 'France', 'Germany', 'Finland', 'Denmark', 'Norway', 'Austria', 'Switzerland', 'Italy', 'Spain', 'Portugal', 'Ireland',]), '|', ('description', 'ilike', 'Plan for use: True'), ('description', 'ilike', 'Plan for buy: False')]

4. Miscellaneous References, Examples

4.1 Reference of Comparison Operators:

- ==: Equal
- !=: Not Equal
- <: Bigger than
- >: Smaller Than
- <=: Bigger than or equal to
- >=: Smaller than or equal to
- in: to check that a given text is included somewhere in another text. e.g "a" in "dabc" is True

4.2 Reference of Pattern/Wildcard characters

- . (dot) represents any character (but just one)
- * means that the previous pattern can be repeated 0 or more times
- + means that the previous pattern can be repeated 1 or more times
- ? means that the previous pattern is optional (0 or 1 times)
- .* would represent any character, repeated 0 or more times
- .+ would represent at least 1 character (but any)
- 5? would represent an optional 5 character

4.3 Reference of filter domains

Generic format is: [(criterion_1), (criterion_2)] to filter for resources matching both criterions. It is possible to combine criterions differently with the following operators:

- '&' is the boolean AND operator and will make a new criterion by combining the next 2 criterions (always 2). This is also the implicit operator when no operator is specified.
    - for example: [(criterion_1), '&', (criterion_2), (criterion_3)] means criterion_1 AND (criterion_2 AND criterion_3)
- '|' is the boolean OR operator and will make a new criterion by combining the next 2 criterions (always 2)
    - for example: [(criterion_1), '|', (criterion_2), (criterion_3)] means criterion_1 AND (criterion_2 OR criterion_3)
- '!' is the boolean NOT operator and will make a new criterion by reversing the value of the next criterion (always only 1)
    - for example: [(criterion_1), '!', (criterion_2), (criterion_3)] means criterion_1 AND (NOT criterion_2) AND criterion_3

Criterion format is: ('field_path_operand', 'operator', value)

Where:

- field_path_operand specifies the name of an attribute or a path starting with an attribute to reach the value we want to compare
- operator is one of the possible operator:
    - '=' , '!=' : equal and different
    - '<', '>', '>=', '<=' : greater or lower than or equal
    - 'in', 'not in' : present or absent in a list of value. Values must be specified as [value1, value2], e.g. ['Belgium', 'Croatia']
    - 'ilike' : search for string value in the operand
- value is the text or number or list value to compare with field_path_operand using comparator

Pushing your Campaign Results further

Of course, Marketing Campaigns can only be effective when you also do something with the results. OpenERP offers analysis features to help you better manage future campaigns based on the outcome of past campaigns. Learning from your results, that is.

The ***Reporting ▸ Marketing ▸ Campaign Analysis***report allows you to analyse your campaigns in detail, both ongoing and completed campaigns.

Segments allow you to keep good track of the results of a marketing campaign. You can see from which segment you have most demands, for instance.

Thanks to good insights in the way your respondents answer to your campaign, you can continuously improve your marketing results!

Group	# of Actions	Cost	Revenue
OpenERP Partner Channel (3)	3		0.00
OpenERP Partner (3)	3		0.00
Gold Partner (1)	1		0.00
Propose a 1 month free trial for an OnDemand offer (1)	1		0.00
Propose a free technical training to Gold partners (1)	1		0.00
OpenERP OnDemand Free Trial 2012 (6)	6		0.00
BossList US Associations List-0/90 (6)	6		0.00
Gold Partner (1)	1		0.00
Propose a free technical training to Gold partners (1)	1		0.00
Propose to buy the OpenERP Book (1)	1		0.00
Propose to subscribe to the OpenERP Discovery Day on May 2010 (1)	1		0.00
Thanks for buying the OpenERP book (1)	1		0.00
Thanks for subscribing to the OpenERP Discovery Day (1)	1		0.00

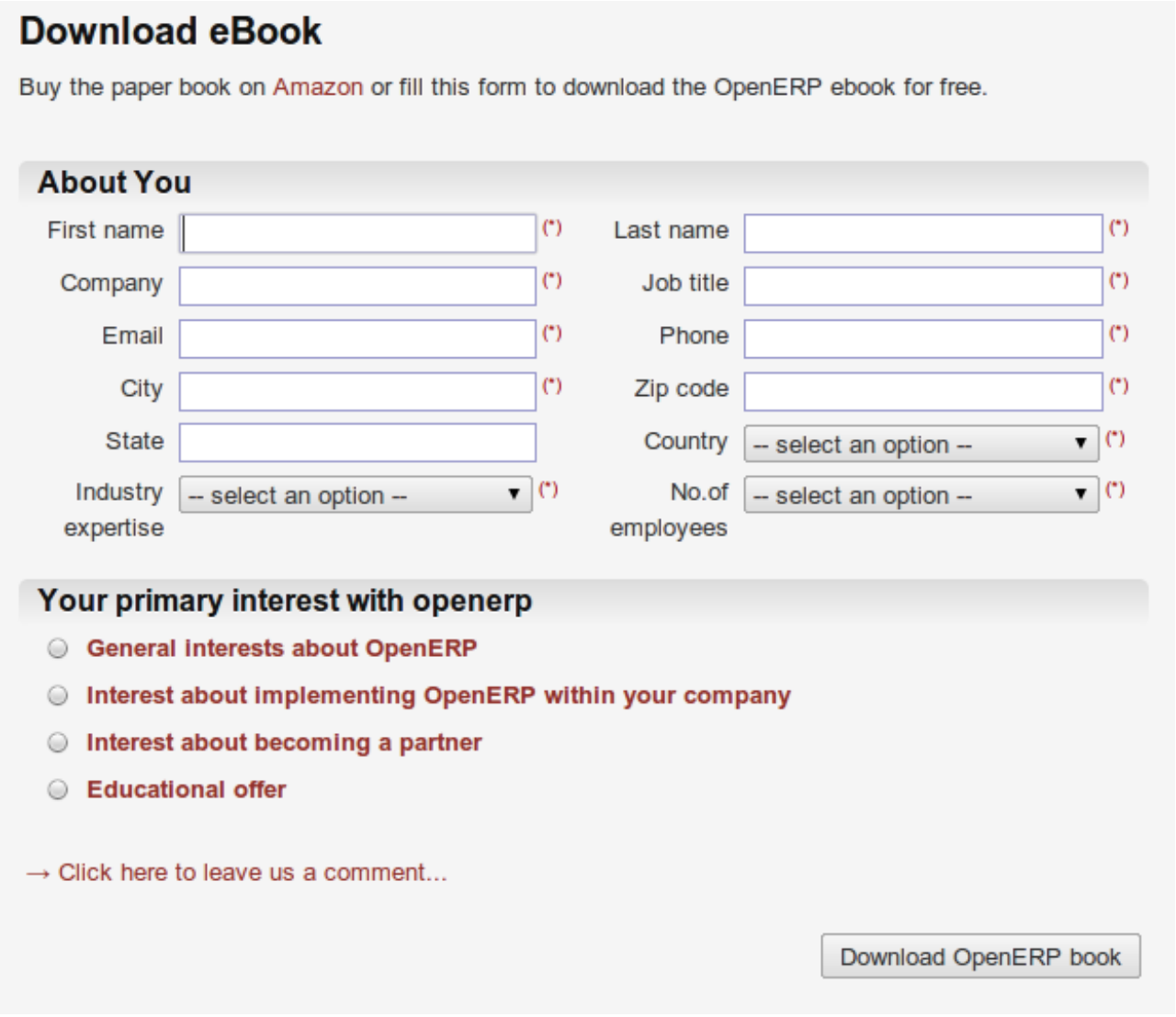
Campaign Analysis

Automating your Lead Acquisition

Through your website, your company wants to get as much information as possible about the people who visit the website. But how can you make sure that every person who wants to know more about your company is actually registered somewhere?

Well, you could use a Contact form for this. And precisely such a form allows you to register contacts automatically in OpenERP. By creating a link from your website's Contact form to OpenERP, your contact data will automatically be created in the CRM (or any other application of your choice, such as HR).

Let us show you an example of how this can be achieved. The figure below shows a Contact form on a website.



Contact Form on your Website

All data entered in this form are linked to the**Lead** form in the CRM. Each time someone enters this contact form, a new lead is automatically created in OpenERP.

Such a system is a very easy yet flexible way of keeping track of your leads and automatically launch your marketing campaigns.

How to Link a Web Contact Form to OpenERP?

OpenERP is accessible through XML-RPC interfaces, for which libraries exist in many languages.

Python example

```
import xmlrpclib # ... define HOST, PORT, DB, USER, PASS url =ĥttp://%s:%d/xmlrpc/common' % (HOST,PORT) sock = xmlrpclib.ServerProxy(url) uid = sock.login(DB,USER,PASS) print "Logged in as %s (uid:%d)" % (USER,uid) # Create a new lead url = 'http://%s:%d/xmlrpc/object' % (HOST,PORT) sock = xmlrpclib.ServerProxy(url) args = { 'name' : 'A New Lead', 'description' : 'This is a new lead from the web contact form', 'inventor_id': uid, } lead_id = sock.execute(DB,uid,PASS,'crm.lead','create',args)
```

PHP Example

```
<? include('xmlrpc.inc'); // Use phpxmlrpc library, available on sourceforge // ... define $HOST,
```

```
$PORT, $DB, $USER, $PASS $client = new xmlrpc_client("http://$HOST:$PORT/xmlrpc/common");
$msg = new xmlrpcmsg("login"); $msg->addParam(new xmlrpcval($DB, "string")); $msg-
>addParam(new xmlrpcval($USER, "string")); $msg->addParam(new xmlrpcval($PASS, "string"));
resp = $client->send($msg); uid = $resp->value()->scalarval() echo "Logged in as $USER (uid:$uid)"

// Create a new lead $arrayVal = array( 'name'=>new xmlrpcval("A New Lead", "string") ,
'description'=>new xmlrpcval("This is a new lead from the web contact form" , "string"),
'inventor_id'=>new xmlrpcval($uid, "int"), );

$msg = new xmlrpcmsg('execute'); $msg->addParam(new xmlrpcval($DB, "string")); $msg-
>addParam(new xmlrpcval($uid, "int")); $msg->addParam(new xmlrpcval($PASS, "string")); $msg-
>addParam(new xmlrpcval("crm.lead", "string")); $msg->addParam(new xmlrpcval("create",
"string")); $msg->addParam(new xmlrpcval($arrayVal, "struct")); $resp = $client->send($msg); ?>
```

Tipp - How to Link a Web Contact Form to OpenERP?

For technical information about how to link a web contact form to OpenERP, please also refer to the Technical Memento that you can download from http://www.openerp.com/community, the chapter about WebServices – XML-RPC.

Profiling your Customers

The segmentation tools let you create partner groups (or categories) and act on each segment differently according to questionnaires. For example, you could create pricelists for each of the segments, or start phone marketing campaigns by segment. To allow you to work with segments in OpenERP, you should install the **crm_profiling** module, which can also be achieved from ***Setting*** ▸ ***Configuration*** ▸ ***Marketing tick the Track customer profile*** *to focus your campaigns*

Profiling can be used to qualify your customers according to a questionnaire you define. When you establish a good customer profile, this will surely help you to close your deals. Customer profiles might even help you beat your competitors!

Establishing the Profiles of Prospects

During presales activities it is useful to qualify your prospects quickly. You can ask a series of questions to find out what product / service to offer to the customer, or how quickly you should handle the request.

Tipp - Profiling

This method of rapidly qualifying prospects is often used by companies who carry out presales by phone. A prospect list is imported into the OpenERP system as a set of partners and the operators then ask a series of questions to each prospect by phone.

Responses to these questions enable each prospect to be qualified automatically which leads to a specific service being offered based on their responses.

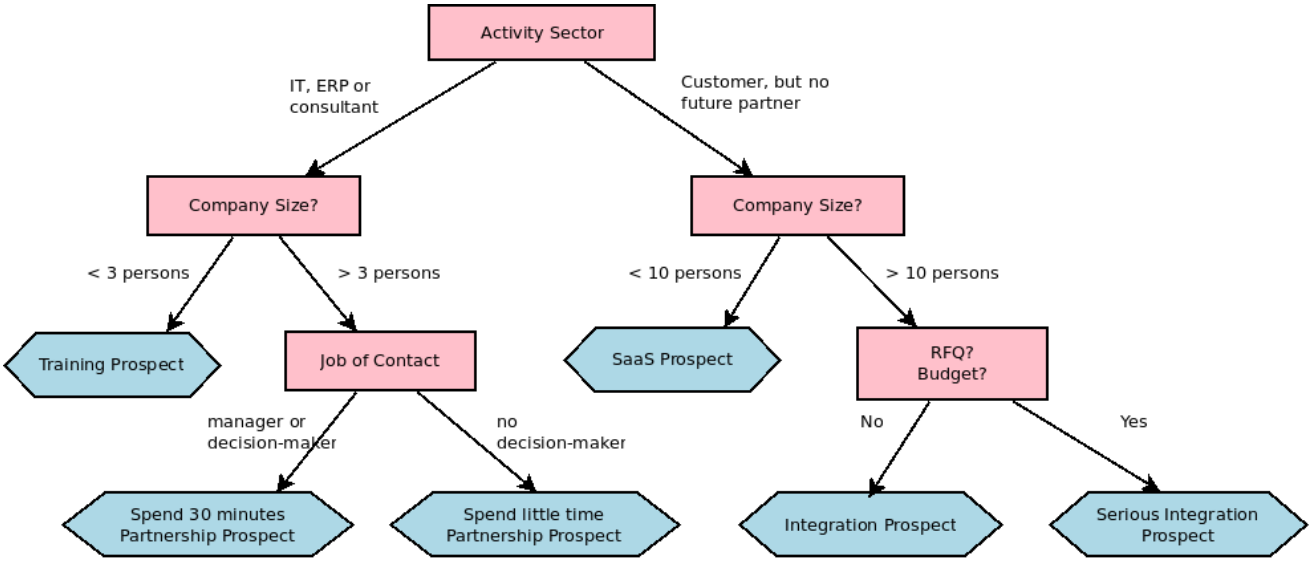
As an illustration, take the case of a software company which offers a service based on the OpenERP software. The company goes to several exhibitions and encounters dozens of prospects over a few days. It is important to handle each request quickly and efficiently.

The products offered at these exhibitions are:

- training on OpenERP – for independent people or small companies,

- partner contract – for IT companies that intend to offer an OpenERP service,
- OpenERP as SaaS – for small companies,
- a meeting in conjunction with a partner to provide a demonstration aimed at providing a software integration – for companies that are slightly larger.

The IT company has therefore put a decision tree in place based on the answers to several questions to prospects. These are given in the following figure *Example of Profiling Customer Prospects by the OpenERP Company*.



Example of Profiling Customer Prospects by the OpenERP Company

The sales person starts by asking the questions mentioned above and then after only a couple of minutes of work, he can decide what to propose to the prospective customer simply by analysing the prospect's answers.

At the end of the exhibition, prospects' details and their responses to the questionnaire are entered into OpenERP. The profiling system automatically classifies the prospects into appropriate partner categories.

This enables your sales people to efficiently follow up prospects and adapt their approach according to each prospect's profile. For example, they can send a letter based on a template developed for a specific partner category. They would use OpenERP's report editor and generator for their sales proposition, such as an invitation to a training session a week after the show.

Using Profiles effectively

To use the profiling system, you have to install OpenERP's **crm_profiling** module. You can also use the ***Setting ▸ Configuration ▸ Marketing tick the Track customer profile to focus your campaigns***

Once the module is installed, you can create several questionnaires through the menu ***Sales ▸ Configuration ▸ Questionnaires***. For each questionnaire, OpenERP allows you to create a list of questions and the possible responses through the menu ***Sales ▸ Configuration ▸ Questions***.

To obtain the scheme presented earlier you can create the following questions and responses:

Questionnaire for Defining Profiles

Questions	**Possible Responses**
Journalist ?	Yes / No

Questions	Possible Responses
Industry Sector ?	IT / ERP Consultant / Services / Industry / Others
Number of Staff ?	1 / 2-20 / 21-50 / 51-100 / 101-500 / 500+
Contact's job function ?	Decision-maker / Not decision-maker
Already created a specification for the work?	Yes / Soon / No
Implementation budget ?	Unknown / <100k / 101-300k / >300k

For instance, a sales person specializing in large accounts for the service sector could have a profile defined like this:

- Budget for integration: **Unknown** , **100k-300k** or **>300k** ,
- Already created a specification for the work? **Yes** , **No**
- Industry Sector? **Services** .

When entering the details of a specific prospect, the prospect's answers to various questions can be entered in the Profiling tab of the **Customer** form. All you have to do is click theUse a Questionnaire button on the Profiling tab of the **Customer** form.

OpenERP will automatically assign prospects to the appropriate partner category based on these answers.

Customers corresponding to a specific search profile can be treated as a priority. The sales person can access the profile of the large active accounts easily.

Manage your Books

Manage your Books

When it is well integrated with the management system, an accounting system offers a company special benefits in addition to the obvious abilities it should have to report on the financial position. This part deals with the practical aspects of accounting, and accounting's role throughout the whole company.

OpenERP's accounting modules enable you to not only manage your operations clearly, following the workflow from invoicing to payment, but also to use various tools for financial analysis based on both real-time data and recent history depending on the analysis.

Your accounting structure can be completely configured from A to Z to match the needs of your company very closely.

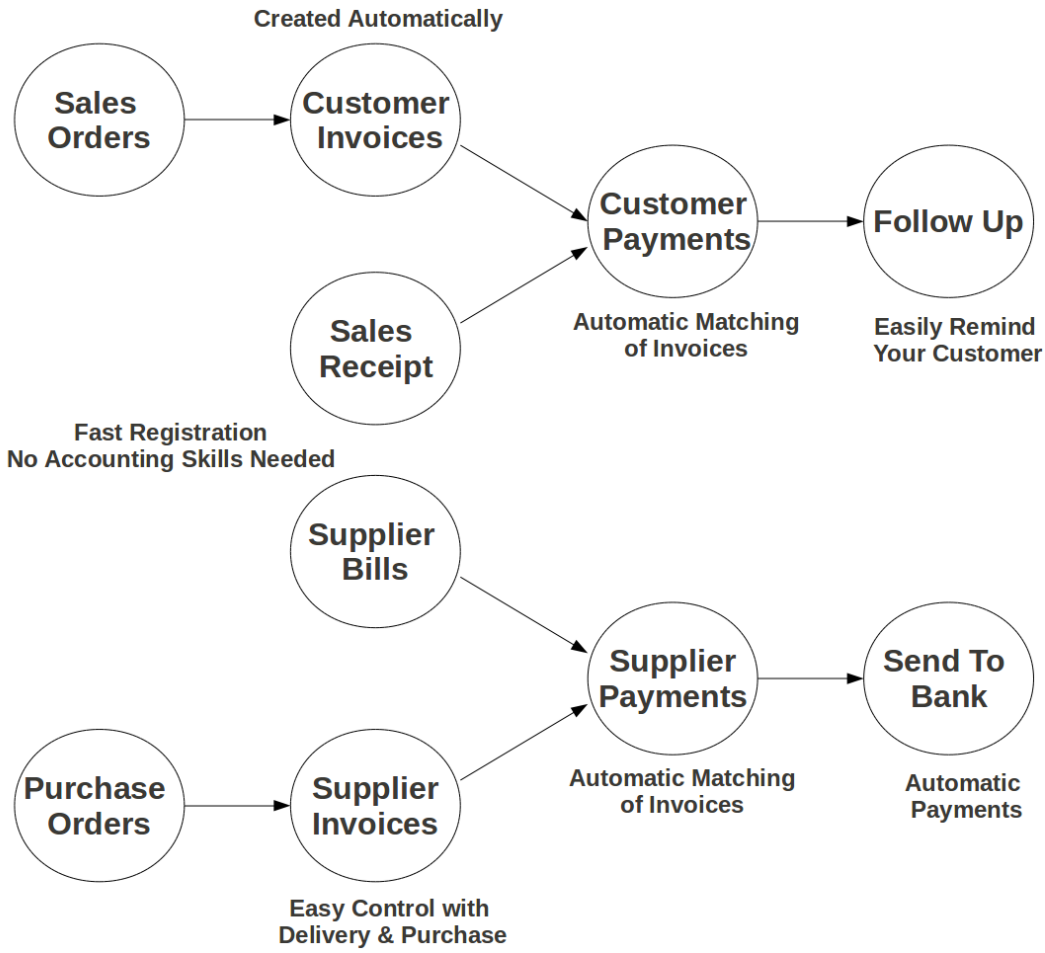
Customer Invoicing & Payments

OpenERP provides various features to keep track of your invoicing and payments. The simple workflow of

invoicing, with efficient encoding of the payment process of your customers, makes OpenERP more adoptable. In this section, we discuss two processes, the easy workflow for non-accountants who just want to keep track of their payments, and the complete accounting section. Note that only the customer process will be described, but of course OpenERP offers equal invoicing and payment methods for suppliers.

Simple Customer Receipts

In OpenERP, the invoicing workflow is very simple. You can see it in the following figure:



Invoicing Workflow

An invoice can be generated from various documents, such as a Sales Order and a Purchase Order, or at the time of confirming a shipment. These methods will be proposed when you use OpenERP as a truely integrated system.

Of course, companies often work together with an external accountant who keeps their books. In that case, you would like to know which invoices exist and have been paid.

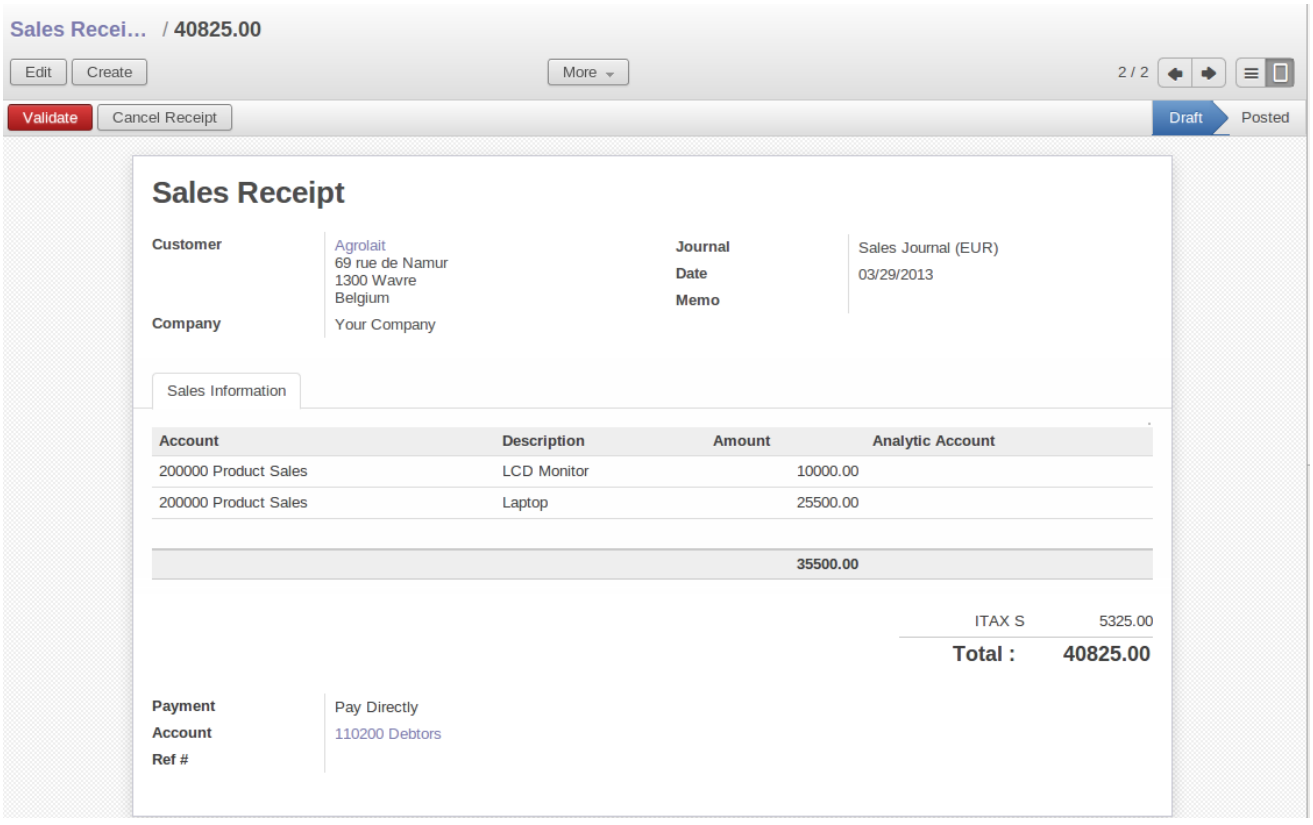
The specific and easy-to-use Invoicing system in OpenERP allows you to keep track of your accounting, even when you are not an accountant. It provides an easy way to follow up your suppliers and customers. You could use this simplified accounting in case you work with an (external) account to keep your books, and you still want to keep track of payments. The **Invoicing** system includes receipts and vouchers (an easy way to keep track of sales and purchases). It also offers you an easy method to register payments, without you having to encode complete abstracts of account.

Simple Customer Receipts

When you sell products to a customer, you can give him a true invoice or a Sales Receipt, which is also called Customer Receipt. Sales Receipts are merely a kind of sales ticket and not a real invoice.

When the sales receipt is confirmed, OpenERP creates journal items automatically and you can record the customer payment related to this sales receipt. The easy invoicing system does not require extensive accounting setup, so you will be up and running quickly!

You can create and modify a sales receipt from the menu ***Accounting*** ▸ ***Customers*** ▸ ***Sales Receipt***



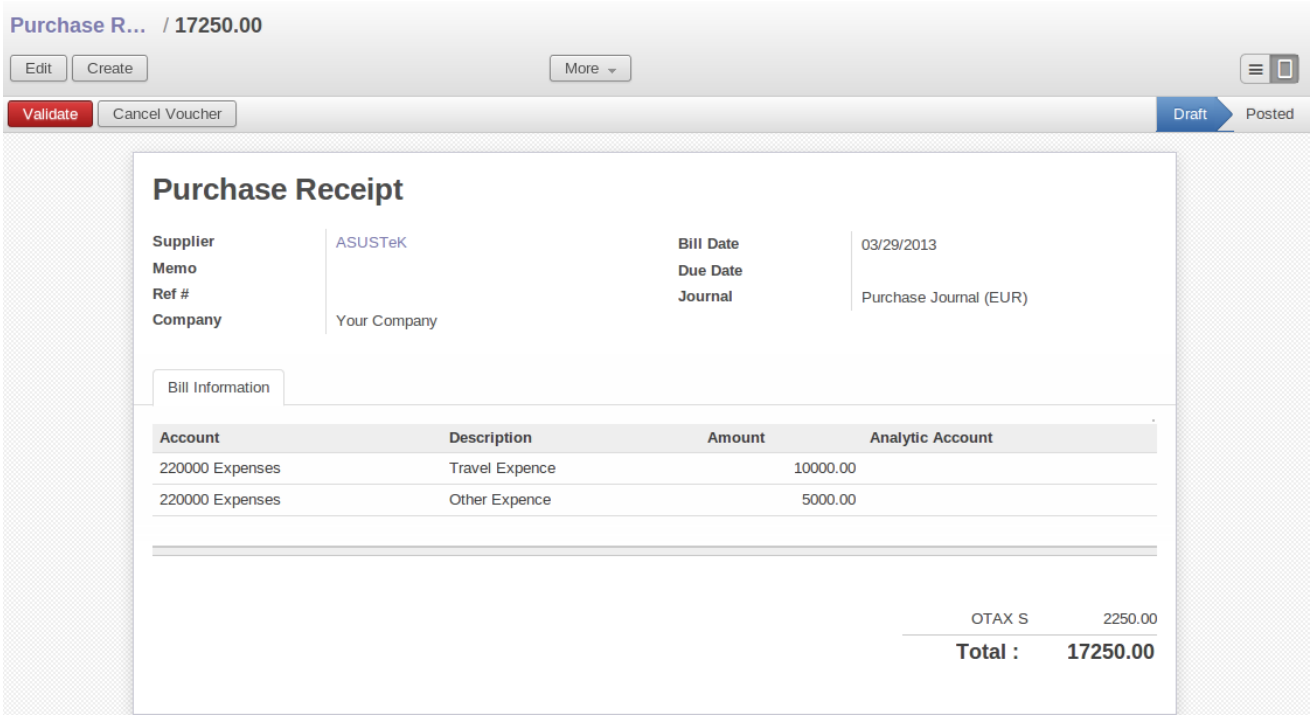
Defining a Customer Receipt

When you create a new Sales Receipt, you have to enter the Customer for whom you want to create a voucher. You can also define Sales Lines in the Sales Information tab. Here you have to define Account, Amount and Description. At the bottom of the form, you will have two options for Payment: one is Pay Directly and another is Pay Later or Group Funds. When you select the Pay Directly option, you have to enter the bank Account. The Total amount displays automatically with calculation of tax (if you select VAT

to be added) when you click the Compute Tax button.

When you purchase products from a supplier, you will receive a Purchase Receipt (a ticket), which is also called Notes Payable in accounting terminology. When a purchase receipt is confirmed, it creates journal items automatically and you can record the supplier payment related to this purchase receipt, just like for the sales receipts.

You can create and modify the purchase receipt through the menu ***Accounting ▸ Suppliers ▸ Purchase Receipt***.



Purchase Receipt

The Purchase Receipt form looks like the Sales Receipt form. In this form, carefully select the journal.

Invoice your Customers

It is surprising to see that in the 21st century, most companies still process quotations & invoices manually, mostly by post or email. The trend is clearly for personal communication to disregard these legacy media, and replace them with instant messaging, social networks, etc. The ***Electronic Data Interchange*** (EDI) platform is here to try and open OpenERP to more modern communication systems, where electronic documents are exchanged and synchronised between business partners in real-time.

Initially, OpenERP will support a simple EDI mechanism for certain OpenERP documents, such as Sales Orders, Purchase Orders and Invoices.

Indeed, the integrated email and invoicing system in OpenERP allows you to create an invoice and automatically send an email with the invoice link to the customer.

The customer then has several options. If your customer also has an OpenERP instance, he can easily import the invoice you have sent him, simply by clicking the link.

Below, you find an example of such an EDI flow:

1. Your company issues a Sales Order, a Purchase Order or an Invoice for a specific partner, let's say Camptocamp.

2. Partner Camptocamp receives an email with a link to an online preview of the document.
3. In the online preview of the document, Camptocamp can read the document, download or print the PDF version, and then choose between a couple of options:

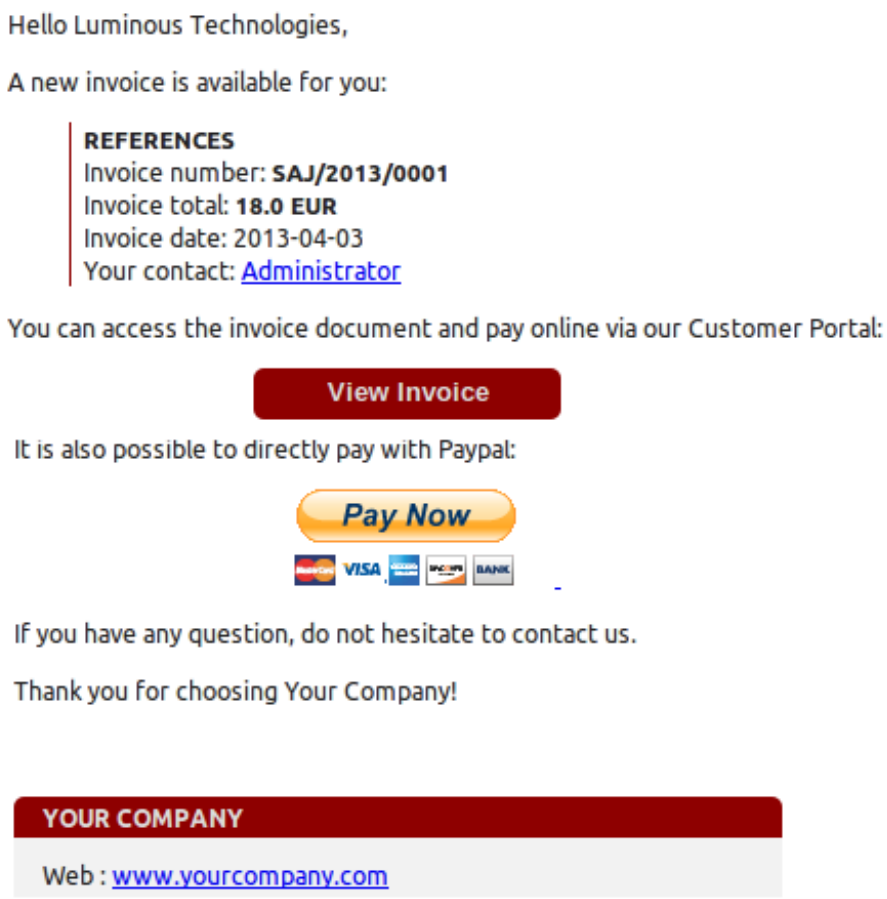
    1. import this document in his own OpenERP instance, simply by providing the instance address;
    2. ask to create a new OpenERP online instance, where the document will be pre-imported;
    3. ask for the raw EDI document, which the partner can then import in his own third-party software through a corresponding EDI import system.

4. Partner Camptocamp can also choose to directly pay online through Paypal or any other mechanism provided by your company.

The email notification is freely customisable as an Email Template from the ***Settings*** ▸ ***Technical*** ▸ ***Email*** ▸ ***Templates***.

To get the EDI and automatic emailing of orders and invoices to work, you need the **EDI** module, which is installed by default. You need to add an email address to the partner and make sure the "Opt-out" checkbox is not selected. Ask your system administrator to configure an Outgoing Mail Server. Note that email notifications will be added to a mail queue and processed once in a while, but you can force emails to be send directly from the ***Settings*** ▸ ***Technical*** ▸ ***Email*** ▸ ***Messages***

The email your customer will receive, will look like the image displayed.



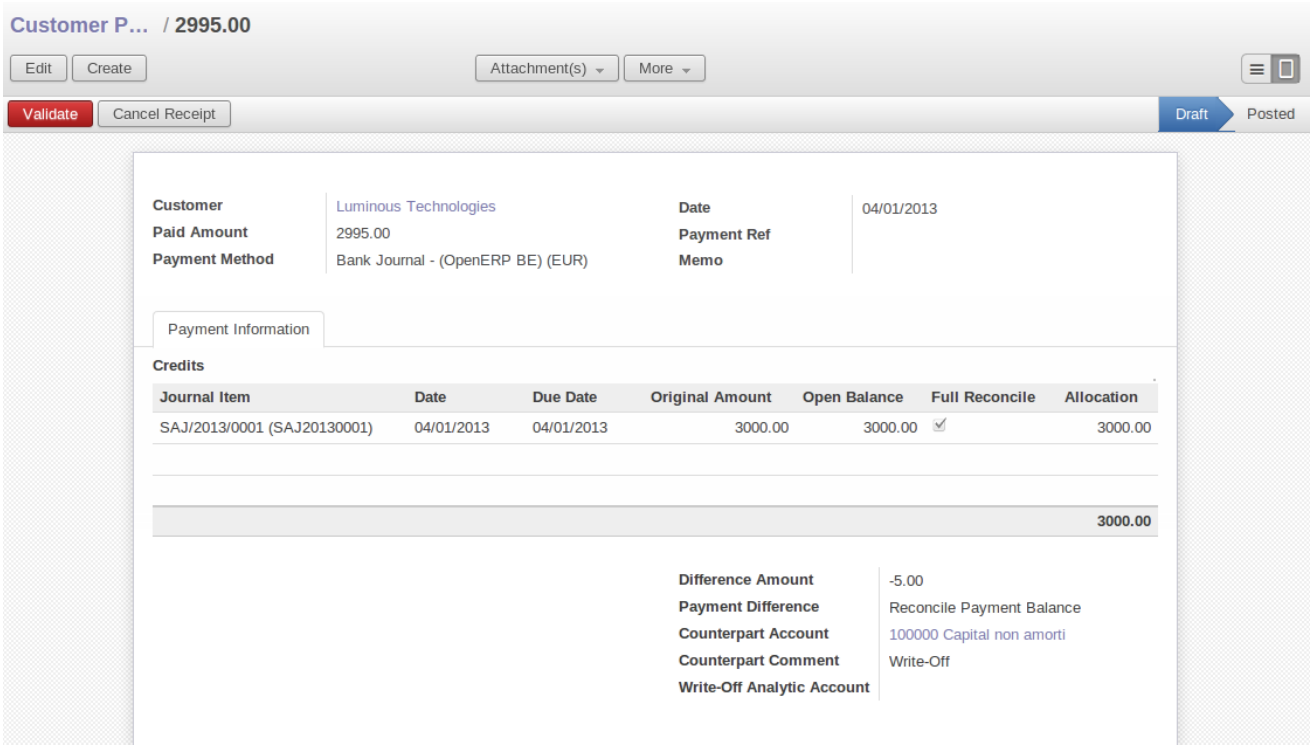
Mail to Your Customer

Keep Track of your Customer's Payments

It is important to efficiently keep track of payments of your customers and suppliers. People who have no accounting knowledge and just want to use OpenERP to keep an eye on their payments, can set the **Invoicing & Payments** access rights from the **User** form.

Customer Payment allows you to register the payments you receive from your customers. In order to record a payment, you have to enter the customer, the payment method (= the journal) and the payment amount. OpenERP will automatically propose the reconciliation of this payment with any open invoices or sales receipts, credit notes and (advance) payments.

You can register Customer payments in OpenERP from the menu ***Accounting*** ▸ ***Customers*** ▸ ***Customer Payment***; click **Create** to register a payment.



Customer Payment

Suppose you have an invoice of 3000 EUR; the amount you actually receive from the customer is 2995 EUR. You would consider the invoice as entirely paid. How would you proceed?

To create a new Customer Payment, select the customer, key in the Paid Amount, e.g. 2995 and select the Payment Method, i.e. your bank journal. Any open invoices, credit notes or advances for this partner will be displayed on the **Payment Information** tab. In this example, the 3000 EUR invoice will be proposed.

Now you have to tell OpenERP that you want to consider the invoice as fully paid. Simply click the invoice line on the **Payment Information** tab to make it editable. Now select the *Full Reconcile* checkbox, and notice that the amount changes to the full amount of the invoice.

Select the proper option in the **Payment Difference** field, i.e. Reconcile Payment (you would use the Keep Open option if you want to claim the 5 EUR from the customer). The write-off amount is already proposed automatically, but you have to enter the Counterpart Account so that write-off entries can be generated by OpenERP. You can also enter a comment about the reconciliation (by default, Write-Off will be proposed). Then post your payment.

Bemerkung - Analytic Accounts

When you do analytic bookkeeping as well, you can enter an analytic account for the write-off too.

This easy payment system also allows you to post a payment that you cannot directly attribute to a customer as an advance.

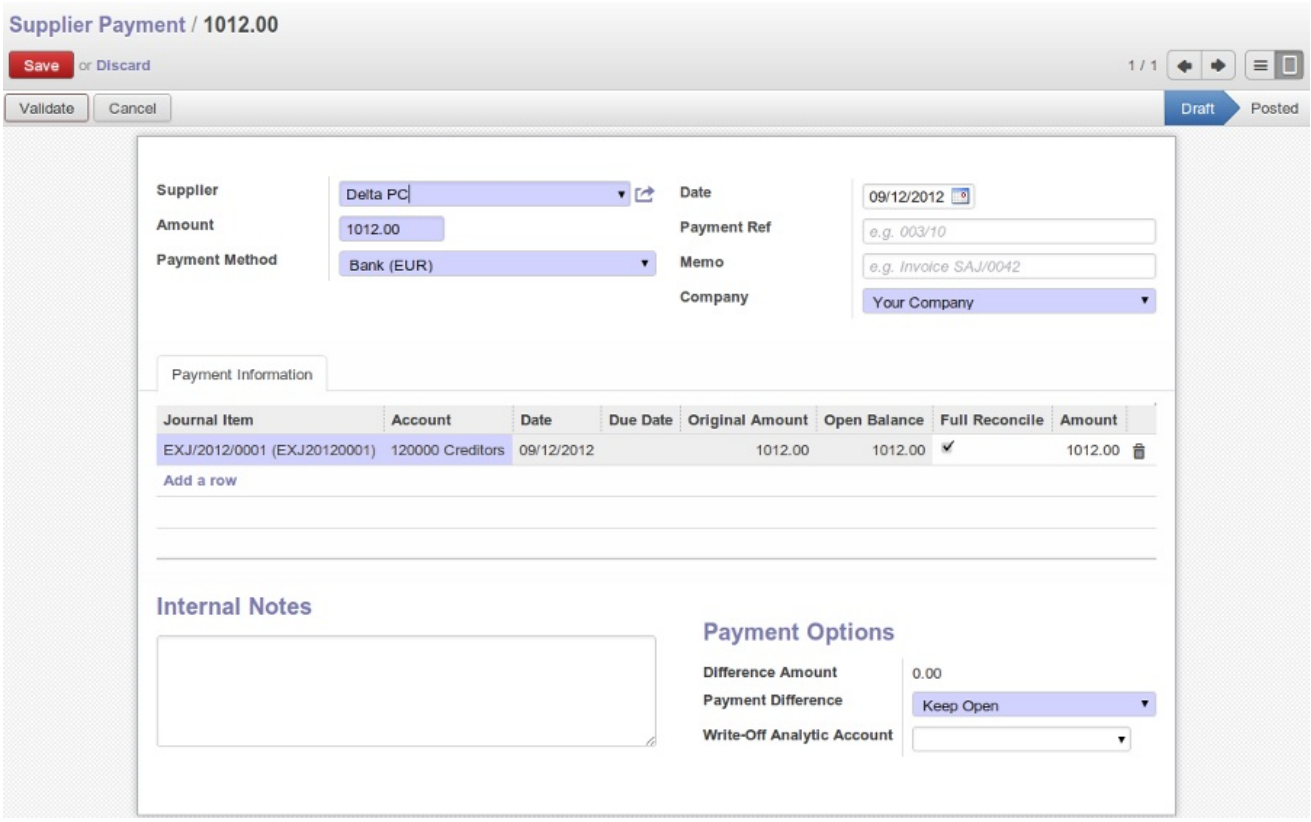
Let us take the following example. A customer has two open invoices, one of 2000, one of 1500. He pays 1000, but you cannot assign this to any of the two invoices directly. You can just enter this payment as an advance. How do you proceed?

When you key in an **Amount paid** of 1000 in your Customer Payment, the amount will be attributed to the oldest invoice. You do not want this, because you have no idea yet of what invoice the amount should be linked to. Click the amount in the first line and set it to 0. Validate the payment. The system will now create an advance payment of 1000 for the customer concerned.

Tipp - Supplier Payment

The Supplier Payment form allows you to track the payment to your suppliers in the same way as a customer payment.

From the menu ***Accounting*** ▸ ***Suppliers*** ▸ ***Supplier Payment***, click the Create button to create a new Supplier Payment.



Supplier Payment Form

Another way of keeping track of your payments is the way accountants will do it, by encoding **Bank Statements**. For more information about this, please refer to the chapter on ***invoicemanagement***.

You can also push your accounting further by importing your payments electronically through a CODA file you receive from the bank. To do this install the **l10n_be_coda** module.

How should you proceed?

You have to enter your company's bank account(s) for which you want to accept CODA files. Go to the menu ***Accounting*** ▸ ***Configuration*** ▸ ***Accounts*** ▸ ***Setup your Bank Accounts*** Choose the bank account type you want to use (IBAN or normal bank account). For electronic payments, you should use IBAN; do

not forget to also enter your bank's BIC code.

Tipp - Bank Journal

When you save the bank account through the Setup your Bank Accounts wizard, a bank journal will be automatically created for that account.

Then add the bank account details for each partner that will pay you through a bank. You can do this in the Partner form, on the **Accounting** tab.

Download the CODA file from your bank to any directory. Import the electronic bank statement through the menu ***Accounting ▸ Bank and Cash ▸ Import CODA File***

Enter the data required in the wizard . Then select the CODA file in your directory and click the **Import** button to start processing the CODA file.

OpenERP will then import a draft bank statement in the selected journal and will match all corresponding customer / supplier payments when possible. You can change the draft statement if necessary from the menu ***Accounting ▸ Bank and Cash ▸ Bank Statements***

Get your Money in

OpenERP provides many tools for managing customer and supplier accounts. In this part we will explain:

- financial analysis of partners, to understand the reports that enable you to carry out an analysis of all of your partners,
- multi-level reminders, which is an automatic system for preparing reminder letters or emails when invoices remain unpaid.
- detailed analysis of individual partners.

Financial Analysis of Partners

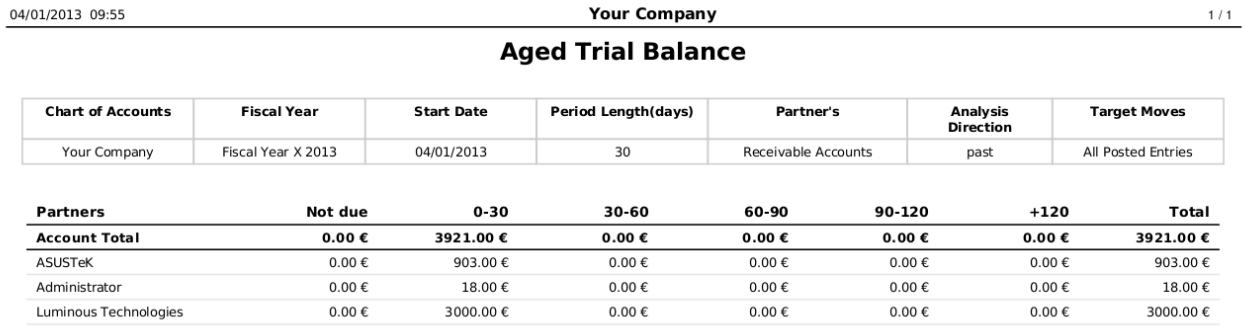
When members of your accounting department sign in to OpenERP, they can immediately be presented with the ***Accounting Dashboard***. By default, it contains company analysis according to account type. You can also call the dashboard from the menu ***Reporting ▸ Dashboards ▸ Accounting***

To obtain a more detailed report of the aged balance (or order by past date), use the menu ***Accounting ▸ Reporting ▸ Generic Reporting ▸ Partners ▸ Aged Partner Balance***.

When you click that report, OpenERP shows a wizard asking you for the chart of accounts, the start date of the analysis period and the size of the interval to be analysed (in days). The start date will determine which documents will be included in the report (document date until the selected start date) and it will serve as a reference date to calculate the amounts due for the selected interval. You can print an aged partner balance for Receivable Accounts or Payable Accounts of for both at the same time. The analysis direction may be **Past** (for entries that are due) or **Future** to keep track of your cash flow in the next days or weeks (according to your selection). OpenERP then calculates a table of credit balance by period. So, if you request an interval of 30 days, OpenERP generates an analysis of creditors for the past month, past two months, and so on. An ageing balance will indicate how much of the accounts receivable is overdue. It also reports how far overdue the accounts are (number of days).

Tipp - Aged Partner Balance

This report works best of you use payment terms or if you set a due date yourself.



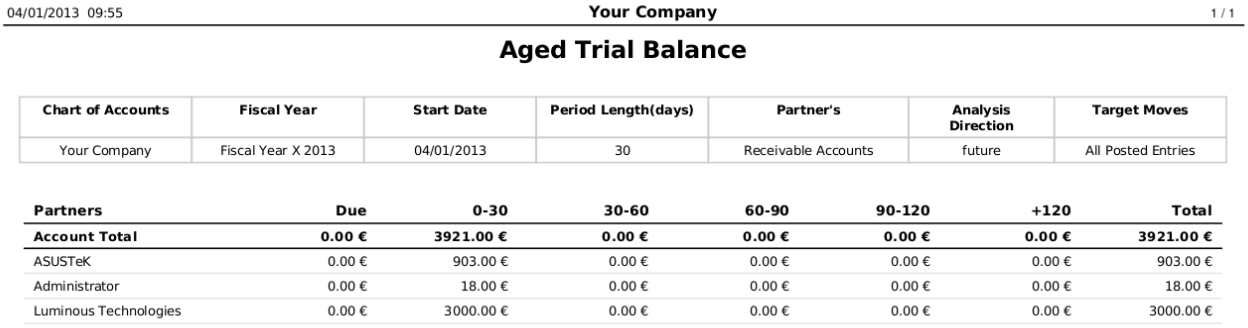
04/01/2013 09:55 **Your Company** 1 / 1

Aged Trial Balance

Chart of Accounts	Fiscal Year	Start Date	Period Length(days)	Partner's	Analysis Direction	Target Moves
Your Company	Fiscal Year X 2013	04/01/2013	30	Receivable Accounts	past	All Posted Entries

Partners	Not due	0-30	30-60	60-90	90-120	+120	Total
Account Total	**0.00 €**	**3921.00 €**	**0.00 €**	**0.00 €**	**0.00 €**	**0.00 €**	**3921.00 €**
ASUSTeK	0.00 €	903.00 €	0.00 €	0.00 €	0.00 €	0.00 €	903.00 €
Administrator	0.00 €	18.00 €	0.00 €	0.00 €	0.00 €	0.00 €	18.00 €
Luminous Technologies	0.00 €	3000.00 €	0.00 €	0.00 €	0.00 €	0.00 €	3000.00 €

Aged Balance in the Past using a 30-days Period



04/01/2013 09:55 **Your Company** 1 / 1

Aged Trial Balance

Chart of Accounts	Fiscal Year	Start Date	Period Length(days)	Partner's	Analysis Direction	Target Moves
Your Company	Fiscal Year X 2013	04/01/2013	30	Receivable Accounts	future	All Posted Entries

Partners	Due	0-30	30-60	60-90	90-120	+120	Total
Account Total	**0.00 €**	**3921.00 €**	**0.00 €**	**0.00 €**	**0.00 €**	**0.00 €**	**3921.00 €**
ASUSTeK	0.00 €	903.00 €	0.00 €	0.00 €	0.00 €	0.00 €	903.00 €
Administrator	0.00 €	18.00 €	0.00 €	0.00 €	0.00 €	0.00 €	18.00 €
Luminous Technologies	0.00 €	3000.00 €	0.00 €	0.00 €	0.00 €	0.00 €	3000.00 €

Aged Balance in the Future using a 30-days Period

For an analysis by partner, you can use the partner balance that you get through the menu ***Accounting*** ▸ ***Reporting*** ▸ ***Generic Reporting*** ▸ ***Partners*** ▸ ***Partner Balance***. The system then supplies you with a PDF report containing one line per partner representing debit, credit and balance. The total is displayed per account receivable.

Partner Balance

Chart of Accounts	Fiscal Year	Journals	Filter By	Partner's	Target Moves
Your Company	Fiscal Year X 2013	TSAJ, TSCNJ, TEXJ, TECNJ, TMIS, TOEJ, TUBK, ECNJ-, BNK-O, CHK-O, CSH-O, STJ, SAJ, EXJ, SCNJ, ECNJ, MISC, OPEJ, BNK1, BNK2, SAJ-O, SCNJ-, EXJ-O, ECNJ-, BNK-O, CHK-O, CSH-O, SAJ-O, SCNJ-, EXJ-O, ECNJ-, BNK-O, CHK-O, CSH-O, SAJ-O, SCNJ-, EXJ-O, TBNK, TCHK, TCSH, SAJ, EXJ, SCNJ, ECNJ, MISC, OPEJ, BNK1, BNK2	No Filters	Receivable Accounts	All Posted Entries

Code	(Account/Partner) Name	Debit	Credit	Balance	In dispute
Total:		**0.00**	**0.00**	**0.00 €**	**0.00 €**
400000	**Clients**	**3921.00**	**0.00**	**3921.00 €**	**0.00 €**
	ASUSTeK	903.00	0.00	903.00 €	0.00 €
	Administrator	18.00	0.00	18.00 €	0.00 €
	Luminous Technologies	3000.00	0.00	3000.00 €	0.00 €

Partner Balance

If you want detailed information about all invoices, credit notes and payments related to partner, print the partner ledger from the menu ***Accounting*** ▸ ***Reporting*** ▸ ***Generic Reporting*** ▸ ***Partners*** ▸ ***Partner Ledger***. You can choose to print one partner per page.

04/01/2013 10:06 **Your Company** 1 / 1

Partner Ledger

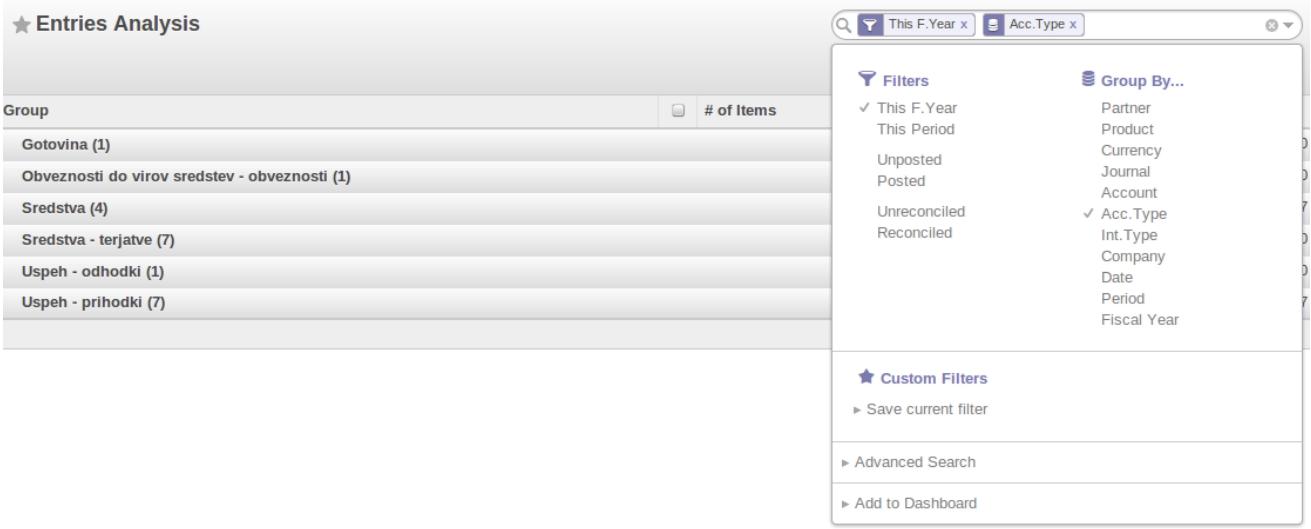
Chart of Accounts	Fiscal Year	Journals	Filters By	Partner's	Target Moves
Your Company	Fiscal Year X 2013	TSAJ, TSCNJ, TEXJ, TECNJ, TMIS, TOEJ, TUBK, ECNJ-, BNK-O, CHK-O, CSH-O, STJ, SAJ, EXJ, SCNJ, ECNJ, MISC, OPEJ, BNK1, BNK2, SAJ-O, SCNJ-, EXJ-O, ECNJ-, BNK-O, CHK-O, CSH-O, SAJ-O, SCNJ-, EXJ-O, ECNJ-, BNK-O, CHK-O, CSH-O, SAJ-O, SCNJ-, EXJ-O, TBNK, TCHK, TCSH, SAJ, EXJ, SCNJ, ECNJ, MISC, OPEJ, BNK1, BNK2	No Filters	Receivable Accounts	All Posted Entries

Date	JRNL	Ref	Account	Entry Label	Debit	Credit	Balance
- ASUSTeK					**903.00**	**0.00**	**903.00 €**
04/01/2013	SAJ	SAJ/2013/0002	400000	SAJ2013... - /	903.00	0.00	903.00 €
- Luminous Technologies					**3000.00**	**0.00**	**3000.00 €**
04/01/2013	SAJ	SAJ/2013/0001	400000	SAJ2013... - /	3000.00	0.00	3000.00 €
- Administrator					**18.00**	**0.00**	**18.00 €**
04/01/2013	SAJ	SAJ/2013/0003	400000	SAJ2013... - /	18.00	0.00	18.00 €

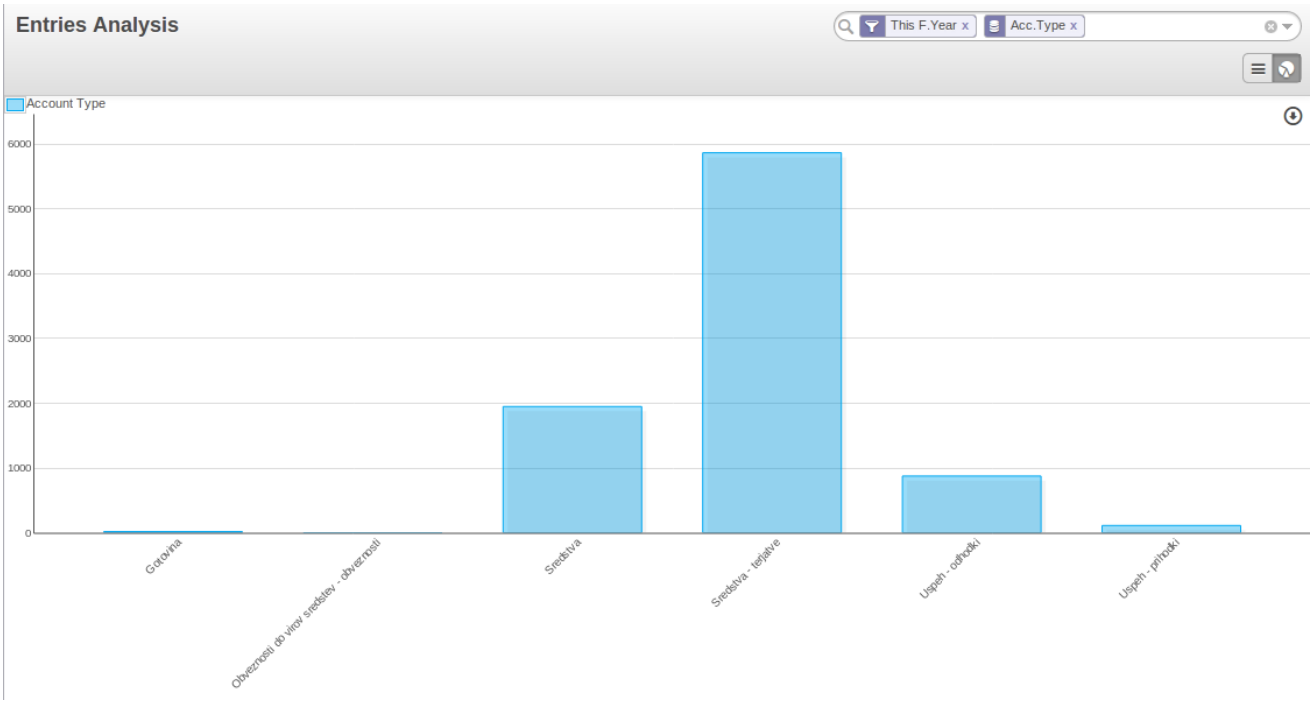
Partner Ledger

Furthermore, OpenERP also provides statistics about individual account entries, invoices and treasury, for instance. To look up statistic information about your accounting, explore the menu ***Reporting*** ▸ ***Accounting***. There you will find **Invoices Analysis**, **Entries Analysis** and **Treasury Analysis** etc.. By default these statistics are displayed as a list which you can filter to fit your needs. Standard filter buttons, extended filters and grouping features allow you to make an in-depth analysis of your accounting. But the list is not all OpenERP has to offer. These statistic reports can be displayed as a graph simply by clicking the **Graph** button at the top right side of the screen. Notice that graphs allow for only one Group by function at a time.

Settings -> Configuration -> Accounting -> eInvoicing & Payments



Entries Analysis List View



Entries Analysis Graph View

Tipp - Exporting Entries

Remember that you can export all types of resources in OpenERP. You can go to the More button at the top centre of any view. The Export feature enables you to easily create your own analysis in tools such as Microsoft Excel or Calc (LibreOffice or OpenOffice), simply by exporting accounting entries.

Multi-step Reminders

To automate the management of follow-ups (reminders) you should install the module ***account_followup*** *(or select the Manage customer payment follow-ups option in the* ***Settings -> Configuration -> Accounting -> eInvoicing & Payments****).*

This module is integrated with the email features of OpenERP. Ask your system administrator to define the smtp server through the menu ***Settings ▸ Technical ▸ Email ▸ Outgoing Mail Servers***

Once the module is installed, configure your levels of follow-up using the menu ***Accounting ▸ Configuration ▸ Follow-Up Levels****.*

Bemerkung - Follow-ups

You can define only one follow-up cycle per company, because you cannot link the follow-up cycle to a partner.

The levels of follow-up are relative to the due date; when no payment term is specified, the invoice date will be considered as the due date.

For each level, you should define the number of days and create a note which will automatically be added into the reminder letter. The order in which you define the various follow-up levels determines the order in which letters will be sent.

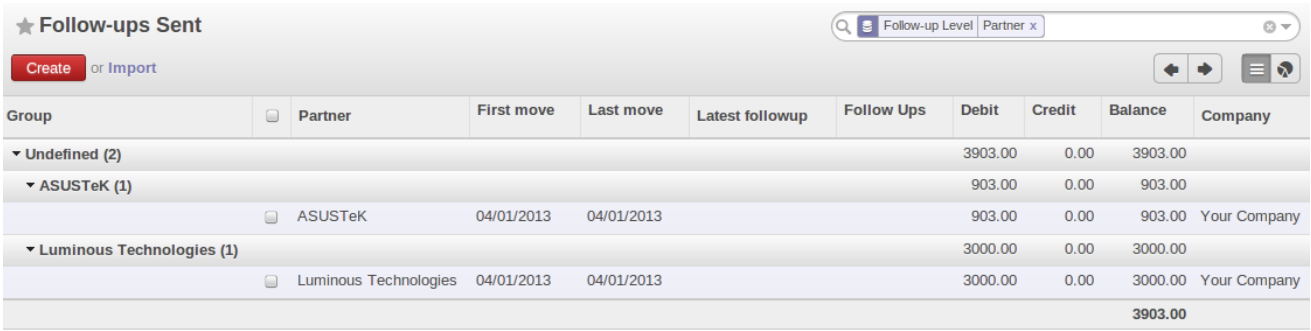
Example of Configuring Follow-up Levels

Sequence	***Level***	***Days***	***Description***
1	*Level 1*	*15 days net*	*First payment reminder*

Sequence	Level	Days	Description
2	Level 2	30 days net	Second reminder
3	Level 3	45 days from end of month	Put on notice

To obtain a detailed statistical report of sent follow-ups go to the menu :menuselection: ***Reporting --> Accounting --> Follow-ups Analysis*** *. This screen will let you analyse your reminder data in various ways, e.g. by follow-up level, by partner or for a combination of these data. You can also group by* ***Latest Followup Date*** *or* ***Partner****, for instance.*

The different reports are standard OpenERP screens, so you can filter them and explore the elements in detail.



Group	Partner	First move	Last move	Latest followup	Follow Ups	Debit	Credit	Balance	Company
Undefined (2)						3903.00	0.00	3903.00	
ASUSTeK (1)						903.00	0.00	903.00	
	ASUSTeK	04/01/2013	04/01/2013			903.00	0.00	903.00	Your Company
Luminous Technologies (1)						3000.00	0.00	3000.00	
	Luminous Technologies	04/01/2013	04/01/2013			3000.00	0.00	3000.00	Your Company
								3903.00	

Reminder Statistics

Analyse your Turnover

Analyse your invoicing in OpenERP through the ***Invoices Analysis*** *screen from the menu* ***Reporting*** ▸ ***Accounting*** ▸ ***Invoices Analysis****.*

In this statistic report, the columns displayed will vary according to the selections and grouping made, thus making it a very flexible report to analyse your invoices.

This report provides an overview of what has been invoiced to your customer as well as the average payment delays. To see the average due delay, make sure to group by ***Due Date****. You can easily group by partner, product category, ... or select only invoices that have not been confirmed yet.*

This is also an easy way to check your sales people's impact on turnover. You can see your turnover per product category, per salesman, per partner and many more options.

Invoices Analysis

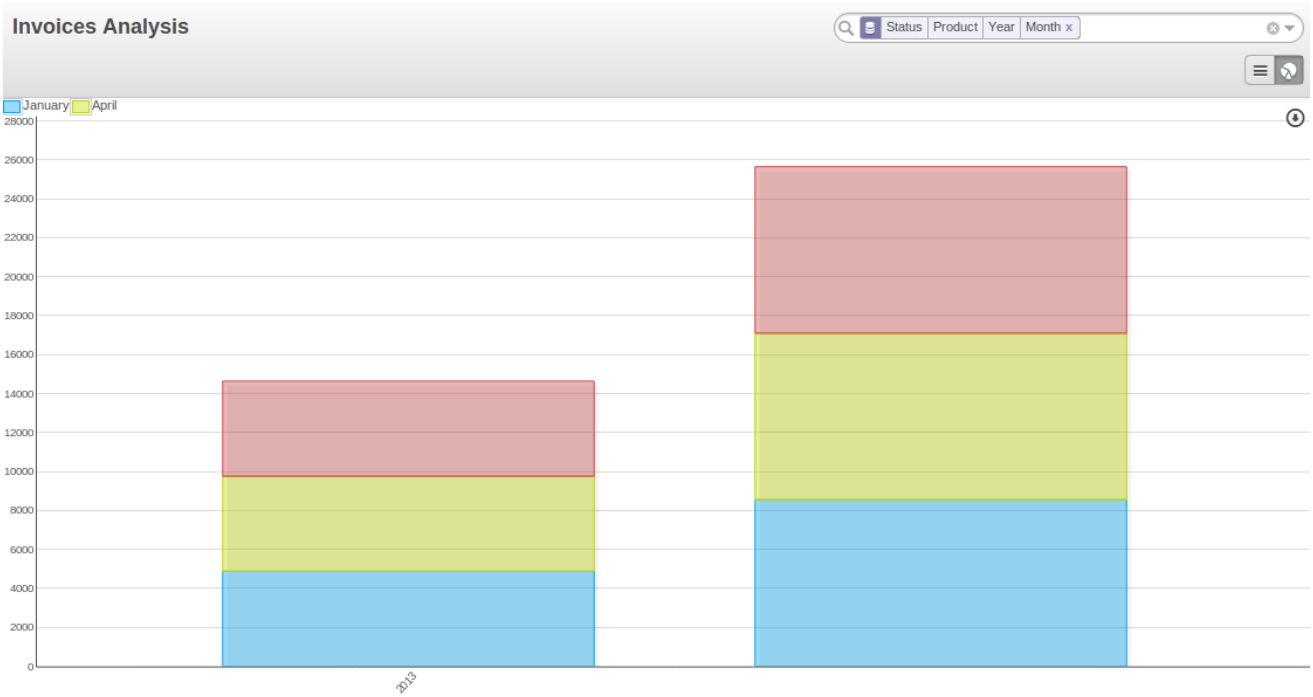
Status | Product | Year | Month x

1-15 of 15

Group	Sales Team	Reference Unit of Measure	# of Lines	Qty	Total Without Tax
Draft (9)			9	-7.00	8536.00
[GRAPs/w] GrapWorks Software (1)			1	-4.00	-618.00
[HEAD-USB] Headset USB (1)			1	2.00	130.00
[INK] Ink Cartridge (1)			1	-9.00	-522.00
[LAP-E5] Laptop E5023 (1)			1	3.00	8850.00
[PD-SP4] Pen drive, SP-4 (1)			1	5.00	725.00
[TONER] Toner Cartridge (2)			2	-4.00	-205.00
[Zplus] Zed+ Antivirus (1)			1	-1.00	-4.00
Golden Membership (1)			1	1.00	180.00
Open (4)			4	51.00	3027.00
[ADPT] USB Adapter (1)			1	1.00	18.00
[CARD] Graphics Card (2)			2	0.00	9.00
[ROUT_430] Router R430 (1)			1	50.00	3000.00
Done (2)			3	1.00	1868.00
[ADPT] USB Adapter (1)			1	1.00	18.00
Undefined (1)			2	0.00	1850.00
			16	45.00	13431.00

Analysing your Invoices

*To quickly see the total turnover per customer in a graph view, group by**Partner** and click the **Graph** button to change to graph mode.*



Analysing your Customer's Turnover

From Invoice to Payment

> *This chapter traces the basic accounting workflow in OpenERP, from entering an invoice to registering payments. The various operations are described, from the entry of accounting receipts to the treatment of the reconciliation process, including payment orders.*

Accounting is at the heart of managing a company: all the company's operations have an impact here. It has an informational role (how much cash is there? what debts need to be repaid? what is the stock valuation?) and, because of the information it provides, a reliable and detailed accounting system can and

should have a major decision-making role.

In most companies, accounting is limited to producing statutory reports and satisfying the directors' curiosity about certain strategic decisions, and to printing the balance sheet and the income statement several times a year. Even then, there is often several weeks of delay between reality and the report.

Bemerkung - Valueing your Accounting Function

In many small companies, the accounting function is poorly treated.

Not only do you see the data for documents being entered into the system twice, but also the results are often just used to produce legal documents and regular printouts of the balance sheet and income statements some weeks after the closing dates.

By contrast, integrating your accounts with your management system means that you can:

- reduce data entry effort – you only need to do it once,
- run your processes with the benefit of financial vision: for example, in managing projects, negotiating contracts, and forecasting cash flow,
- easily get hold of useful information when you need it, such as a customer's credit position.

So accounting is too often underused. The information it brings makes it a very effective tool for running the company if it is integrated into the management system. Accounting information really is necessary in all of your company's processes for you to be effective, for example:

- for preparing quotations it is important to know the precise financial position of the client, and to see a history of any delays in payment,
- if a given customer has exceeded his credit limit, accounting can automatically stop further deliveries to the customer,
- if a project budget is 80% consumed, but the project is only 20% complete, you could renegotiate with the client, or review and rein in the objectives of the project,
- if you need to improve your company's cash flow then you could plan your service projects on the basis of billing rates and payment terms of the various projects, and not just delivery dates – you could work on short-term client projects in preference to R&D projects, for example.

OpenERP's general accounting and analytic accounting handle these needs well because of the close integration between all of the application modules. Furthermore, the transactions, the actions and the financial analyses happen in real time, so that you cannot only monitor the situation but also manage it effectively.

The **account** module in OpenERP covers general accounting, analytic accounting, and auxiliary and budgetary accounting. It is double-entry, multi-currency and multi-company.

Bemerkung - Accounting

- General accounting (or financial accounting) is for identifying the assets and liabilities of the business. It is managed using double-entry accounting which ensures that each transaction is credited to one account and debited from another.
- Analytical accounting (or management accounting, or cost accounting) is an independent

accounting system, which reflects the general accounts but is structured along axes that represent the company's management needs.

- Auxiliary accounting reflects the accounts of customers and/or suppliers.
- Budgetary accounts predefine the expected allocation of resources, usually at the start of a financial year.

Tipp - Multi-company

There is a choice of methods for integrating OpenERP in a multi-company environment:

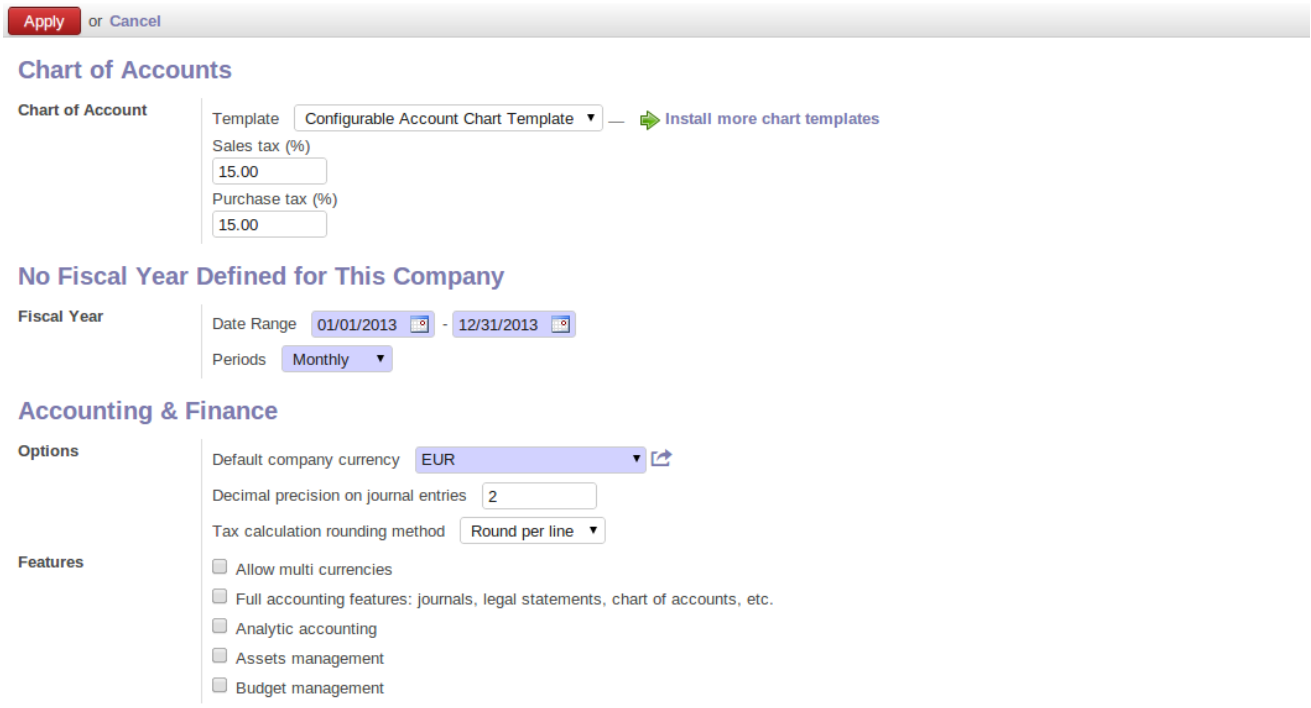
- if the companies hold few documents in common (such as products, or partners - any OpenERP resource), you could install separate databases,
- if the companies share many documents, you can register them in the same database and install OpenERP's multi-company documents to finely manage access rights,

One of the great advantages of integrating accounts with all of the other modules is in avoiding the double entry of data into accounting documents. So in OpenERP, an Order automatically generates an Invoice, and the Invoice automatically generates the accounting entries. These in turn generate tax submissions, customer reminders, and so on. Such strong integration enables you to:

- reduce data entry work,
- greatly reduce the number of data entry errors,
- get information in real time and enable very fast reaction times (for bill reminders, for example),
- exert timely control over all areas of company management.

Tipp - For Accountants

You can configure the Accounting application using the information given in the configuration settings.



With appropriate rights management, this allows trustees to provide customers with real-time access to their data. It also gives them the opportunity to work on certain documents that have no direct

accounting impact, such as budgets.

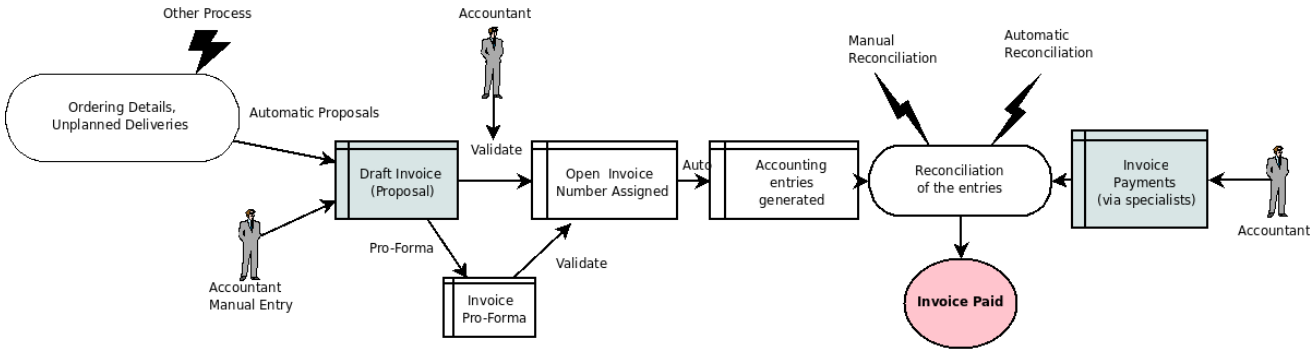
This can provide a value-added service that greatly improves the interaction between trustees and their clients.

All the accounts are held in the default currency (which is specified in the company definition), but each account and/or transaction can also have a secondary currency (which is defined in the account). The value of multi-currency transactions is then tracked in both currencies.

For this chapter you should start with a fresh database that includes demo data, with Sales Management installed and a generic chart of accounts.

Accounting Workflow and Automatic Invoice Creation

The chart *Accounting workflow for invoicing and payment* shows the financial workflow followed by each invoice.



Accounting workflow for invoicing and payment

In general, when you use all of OpenERP's functionality, invoices do not need to be entered manually. Draft invoices are generated automatically from other documents such as Purchase Orders.

Draft Invoices

The system generates invoice proposals which are initially set to the**Draft** state. While these invoices remain unconfirmed, they have no accounting impact within the system. There is nothing to stop users creating their own draft invoices if they want to.

You can create draft customer invoice manually using the menu***Accounting*** ▸ ***Customers*** ▸ ***Customer Invoices***.

The information that is needed for invoicing is automatically taken from the Partner form (such as payment conditions and the invoice address) or from the Product (such as the account to be used) or from a combination of the two (such as applicable Taxes and the Price of the product).

Tipp - Draft Invoices

There are several advantages in working with draft invoices:

- You have got an intermediate validation state before the invoice is approved. This is useful when your accountants are not the people creating the initial invoice, but are still required to approve it before the invoice is entered into the accounts.
- It enables you to create invoices in advance, without approving them at the same time. You are also able to list all of the invoices awaiting approval.

Open or Pro Forma Invoices

You can approve (or validate) an invoice in the**Open** or **Pro-forma** state. A pro forma invoice does not have an invoice number yet, nor accounting entries. It is commonly used as a preliminary invoice or for customs purposes. It is more formal than a draft invoice and a pro forma invoice can later be converted to an open invoice.

Tipp - Pro-forma in Invoice

Go to menu ***Settings*** ▸ ***Configuration*** ▸ ***Accounting***in eInvoicing & Payments section tick**Allow pro-forma invoices**. Then the Pro-forma will be shown in Invoice form.

An open invoice has a unique invoice number. The invoice is sent to the customer and is marked on the system as awaiting payment.

Reconciliation and Payments

In OpenERP, an invoice is considered to be paid when its accounting entries have been reconciled with the payment entries. If there has not been a reconciliation, an invoice can remain in the **Open** state until you have entered the payment.

Tipp - Payment and Reconciliation

To avoid surprises, it is important to understand the idea of reconciliation and its link with invoice payment.

You will find the ***Paid/Reconciled*** checkbox on an invoice. It is checked if the Journal Entry of the invoice has been totally reconciled with one or several Journal Entries of payment.

Bemerkung - Reconciliation

Reconciliation links entries in an account that cancel each other out – they are reconciled to each other (sum of credits = sum of debits).

This is generally applied to payments against corresponding invoices.

Without the reconciliation process, OpenERP would be incapable of marking invoices that have been paid. Suppose that you have got the following situation for the **Smith and Offspring** customer:

- Invoice 145: 50,
- Invoice 167: 120,
- Invoice 184: 70.

If you receive a payment of 120, OpenERP will delay reconciliation because there is a choice of invoices to pay. It could either reconcile the payment against invoices 145 and 184 or against invoice 167.

At regular intervals, and independent of the invoices, an automatic import procedure or a manual accounts procedure can be used to bring in bank statements. These comprise all of the payments of suppliers and customers and general transactions, such as between accounts.

When an account is validated, the corresponding accounting entries are automatically generated by OpenERP.

Invoices are marked as **Paid** when accounting entries on the invoice have been reconciled with accounting entries about their payment.

This reconciliation transaction can be carried out at various places in the process, depending on your preference:

- at data entry for the accounting statement,
- manually from the account records,
- automatically using OpenERP's intelligent reconciliation.

You can create the accounting records directly, without using the invoice and account statements. To do this, use the rapid data entry form in a journal. Some accountants prefer this approach because they are used to thinking in terms of accounting records rather than in terms of invoices and payments.

You should really use the forms designed for invoices and bank statements rather than manual data entry records, however. These are simpler and are managed within an error-controlling system.

Records-based Accounting System

All the accounting transactions in OpenERP are based on records, whether they are created by an invoice or created directly.

So, customer reminders are generated quickly from the list of unreconciled entries in the trade receivables account for that partner. In a single reminder, you will find the whole set of unpaid invoices as well as unreconciled payments, such as advance payments.

Similarly, financial statements such as the general ledger, account balance, aged balance (or chronological balance) and the various journals are all based on accounting entries. It does not matter if you generated the entry from an invoice form or directly in the invoice journal. It is the same for the tax declaration and other statutory financial statements.

When using integrated accounting, you should still go through the standard billing process because some modules are directly dependent on invoice documents. For example, a sales order can be configured to wait for payment of the invoice before triggering a delivery. In such a case, OpenERP automatically generates a draft invoice to send to the client.

Invoices

In OpenERP, the concept of “invoice” includes the following documents:

- The Customer Invoice
- The Supplier Invoice
- A Customer Credit Note or Customer Refund
- A Supplier Credit Note or Supplier Refund

Only the invoice type and the representation mode differ for each of the four documents. But they are all stored in the same object type in the system.

You get the correct form for each of the four types of invoice from the menu you use to open it. The name of the tab enables you to tell the invoice types apart when you are working on them.

Bemerkung - Types of Invoice

There are many advantages in deriving the different types of invoice from the same object. Two of the most important are:

- In a multi-company environment with inter-company invoicing, a customer invoice in one company becomes a supplier invoice for the other,
- This enables you to work and search for all invoices from the same menu. If you are looking for an invoicing history, OpenERP provides both supplier and customer invoices in the same list, as well as credit notes.

Bemerkung - Credit Note

A credit note is a document that enables you to cancel an invoice or part of an invoice.

To access customer invoices in OpenERP, use the menu ***Accounting*** ▸ ***Customers*** ▸ ***Customer Invoices***, and for supplier invoices, use the menu ***Accounting*** ▸ ***Suppliers*** ▸ ***Supplier Invoices***.

Most of the time, invoices are generated automatically by OpenERP as they are generated from other processes in the system. So it is not usually necessary to create them manually, but simply approve or validate them. OpenERP uses the following different ways of generating invoices:

- from Supplier or Customer Orders,
- from receipt or dispatch of goods,
- from work carried out (timesheets, see *Key Features HR*),
- from closed tasks (see *Drive your Projects*),
- from fee charges or other rechargeable expenses (see *Deliver Quality Services*).

The different processes generate **Draft** invoices. These must then be approved by a suitable system user and sent to the customer. The different invoicing methods are detailed in the following sections and chapters.

It is also possible to enter invoices manually. This is usually done for invoices that are not associated with an order (usually purchase orders) or Credit Notes. Also, if the system has not been configured correctly you might need to edit the invoice before sending it to the customer.

For example, if you have not realized that the customer is tax-exempt, the invoice you generate from an order will contain tax at the normal rates. It is then possible to edit this out of the invoice before validating it.

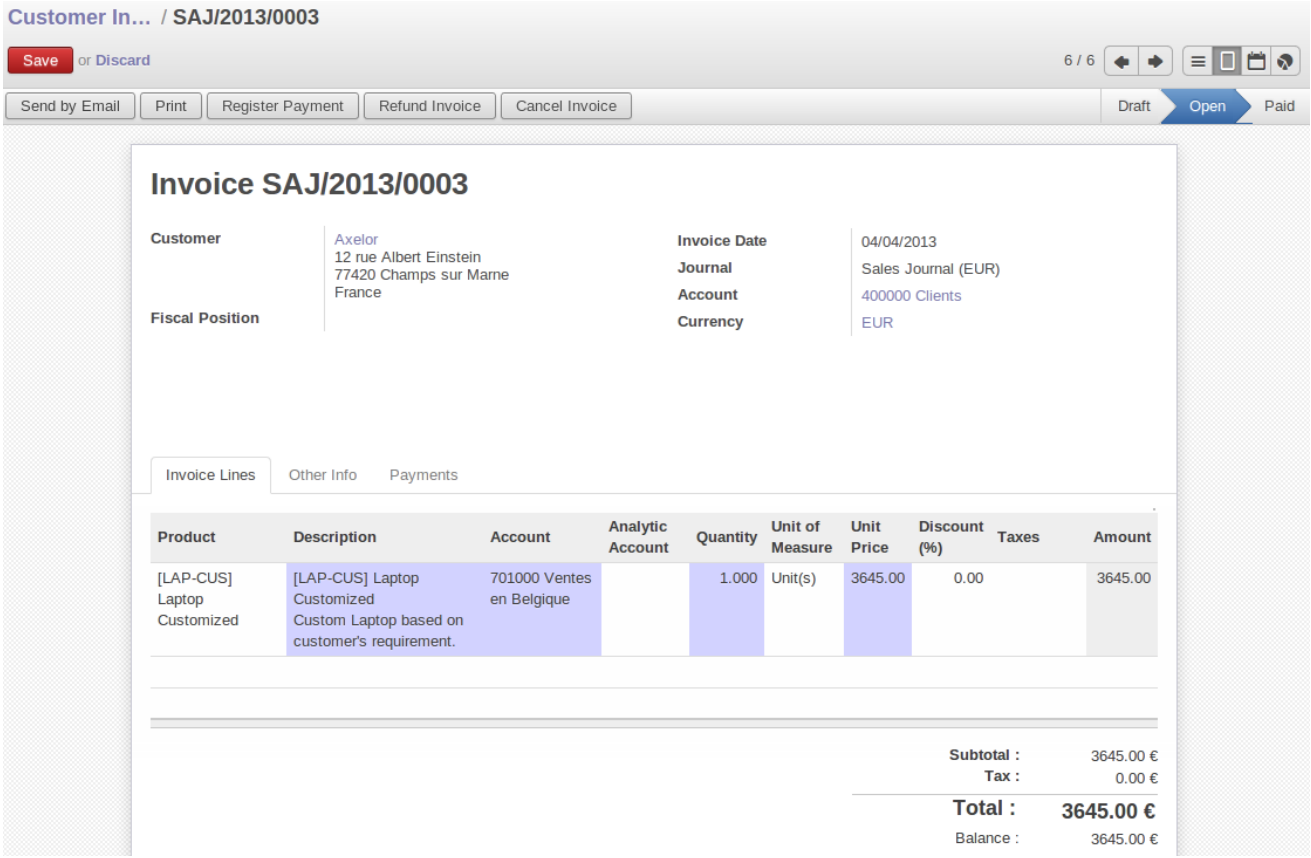
Entering a Customer Invoice

The principle of entering data for invoices in OpenERP is very simple, as it enables non- accountant users to create their own invoices. This means that your accounting information can be kept up-to-date all the time as orders are placed and received, and their taxes are calculated.

At the same time, it allows people who have more accounting knowledge to keep full control over the accounting entries that are being generated. Each value proposed by OpenERP can be modified later if needed.

Start by manually entering a customer invoice. Use ***Accounting*** ▸ ***Customers*** ▸ ***Customer Invoices*** and click on **Create** button for this.

A new invoice form opens for entering information.



Entering a New Invoice

The document is composed of three parts:

- the top of the invoice, with customer information,
- the main body of the invoice, with detailed invoice lines,
- the bottom of the page, with some additional information, taxes, and the totals.

To enter a document in OpenERP, you should always fill in fields in the order they appear on screen. Doing it this way means that some of the later fields are filled in automatically from the selections made in earlier fields. So select the Customer, and the following fields are completed automatically:

- the invoice address corresponds to the customer contact that was given the address type of Invoice in the customer form (or otherwise the address type ofDefault),
- the customer account corresponds to the account given in theAccounting which is found in a tab of the customer form,
- a specific or a default payment condition can be defined for this customer in theAccounting tab of the customer form. Payment conditions are generated by rules for the payment of the invoice. For example: 50% in 21 days and 50% in 60 days from the end of the month.

Bemerkung - Properties Fields

The Properties fields on the Customer form or the Product form are multi-company fields. The value that the user sees in these fields depends on the company that the user works for.

If you work in a multi-company environment that is using one database, you have several charts of accounts. Asset and liability accounts for a customer depend on the company that the user works for.

Tipp - Seeing Customer Relationships

You can reach more information from certain relation fields in OpenERP.

- In OpenERP, a relation is commonly a hyperlink - it takes you to the main form for that entity, with all of the actions and links.

So one way or another you can rapidly reach the customer's:

- current sales and purchases,
- CRM requests,
- open invoices,
- accounts records,
- payable and receivable accounts.

You can add more detailed additional information to the invoice and select the currency that you want to invoice in.

Once the invoice heading is saved, you must enter the different invoice lines. You could use either of the two techniques:

- enter the whole field manually,
- use a product to complete the different fields automatically.

Tipp - Invoice Line Description

The invoice line description is more of a title than a comment. If you want to add more detailed comments you can use the field Additional Information.

So select the product **Laptop Customized** in the product field in an invoice line. The following fields are then completed automatically:

- Description : this comes from the product, in the language of the partner,
- Account : determined by the purchase or sales account defined in the product properties. If no account is specified in the product form, OpenERP uses the properties of the category that the product is associated with.
- Unit of Measure : this is defined by default in the product form,
- Unit Price : this is given by the sales price in the product form.
- Taxes : provided by the product form and the partner form.

Tipp - Managing the Price with Tax Included

By default, OpenERP invoices and processes the price without taxes – they are managed as a separate amount. OpenERP can manage tax inclusive prices when you check the Tax Included in Price field true when configuring the tax.

You can enter several invoice lines and modify the values that are automatically completed by OpenERP.

Once the invoice lines have been entered, you can click(update) on the invoice to get the details of tax calculated such as:

- Untaxed amount,
- Tax amount,
- Total amount.

In the Other Info tab at the bottom you will find the details of the total calculated for different tax rates used in the invoice.

Before approving the invoice you can modify the date and the accounting period, which are entered by default as today's date.

A click on PRO-FORMA moves from the **Draft** to **Pro-forma** state. And click Validate when you want to approve the invoice. It moves from the **Draft** state to the **Open** state.

Bemerkung - PRO-FORMA button

In order to get the PRO-FORMA button on invoice, go to the menu ***Settings*** ▸ ***Accounting, eInvoicing & Payments*** section and click the boolean field ***Allow pro-forma invoices***.

When you have validated an invoice, OpenERP gives it a unique number from a defined sequence. By default it takes the form **Journal Code/Year/Sequence Number** for example, **SAJ/2010/005** . You cannot modify an invoice number, but instead, you should modify the sequence numbers through the menu ***Settings*** ▸ ***Configuration*** ▸ ***Accounting, eInvoicing & Payments*** section and provide ***Next Invoice number***

Accounting entries corresponding to this invoice are automatically generated when you approve the invoice. You see the details by clicking the entry in the Journal Entry field and searching there for the account moves generated by that invoice number.

Furthermore, you can also Print or Email your Invoice.

Tax Management

Details on the product form determine the selection of applicable taxes for an invoice line. By default, OpenERP takes account of all the taxes defined in the product form.

Take the case of the following product

- Applicable taxes:

  - TVA: 19.6% type TVA
  - DEEE: 5.5, type DEEE

Bemerkung - DEEE Tax

The DEEE tax (disposal of electronic and electrical equipment) is an ecological tax that was imposed in France from 2009. It is applied to batteries to finance their recycling and is a fixed sum that is applied to the before-tax amount on the invoice.

If you trade with a company in your own country, and your country has a DEEE-type tax, the applicable

taxes for this invoice could be:

- DEEE: 5.5,
- TVA: 19.6%.

If you sell to a customer in another company in the community (intracommunity), instead, then tax is not charged. In the partner form, in the tab Accounting, the field Fiscal Position maintains information whether the customer is within the region or not. When you create an invoice for this customer, OpenERP will calculate the following taxes on the product:

- DEEE: 5.5,
- TVA intracommunity: 0%.

If you have not entered the parameters in the customer form correctly, OpenERP will suggest incorrect taxes in the invoice. That is not a real issue, because you can always modify the information directly in the invoice before approving it.

Tipp - Occasional Invoices

When you create an invoice for a product that will only be bought or sold once, you do not have to encode a new product. Instead, you will have to provide quite a bit of information manually on the invoice line:

> - product description,
> - account,
> - quantity,
> - unit price.

Cancelling an Invoice

By default, OpenERP will not allow you to cancel an invoice once it has been approved. Since accounting entries have been created, you theoretically cannot go back and delete them. However, in some cases, it is more convenient to cancel an invoice when there is an error than to produce a credit note and reconcile the two entries. Your attitude to this will be influenced by current legislation in your accounting jurisdiction and your adherence to accounting purity.

OpenERP accommodates either approach. Install the account_cancel module. Then allow cancelling an invoice by checking the box Allow Cancelling Entries in the Journal corresponding to this invoice. You will then be allowed to cancel the invoice if the following two conditions are met:

> 1. The accounting entries have not been reconciled or paid: if they have, then you will have to cancel the reconciliation first.
> 2. The accounting period or the fiscal year has not already been closed: if it is closed then no modification is possible.

Cancelling an invoice has the effect of automatically modifying the corresponding accounting entries.

To be able to cancel invoices, you should install the module **account_cancel**. You can cancel an invoice if the ***Allow Cancelling Entries*** function has been activated in the journal and the entries have not yet

been reconciled. You could then move it from **Cancelled** to the **Draft** state to modify it and regenerate it.

Tipp - Numbering Invoices

Some countries require you to have contiguously numbered invoices (that is, with no break in the sequence). If, after cancelling an invoice that you are not regenerating, you find yourself with a break in the numbering you would have to go and modify the sequence, redo the invoice and replace the sequence number with its original value.

You can control the sequences using the menu ***Settings*** ▸ ***Technical*** ▸ ***Sequences & Identifiers*** ▸ ***Sequences***.

Cancelling an invoice will cause a break in the number sequence of your invoices. You are strongly advised to recreate this invoice and re-approve it to fill the hole in the numbering if you can.

Tipp - Duplicating a Document

The duplication function can be applied to all the system documents: you can duplicate anything – a product, an order, or a delivery.

Bemerkung - Duplicating Invoices

Instead of entering a new invoice each time, you can base an invoice on a similar preceding one and duplicate it. To do this, first search for a suitable existing invoice. In the web client, show the invoice in read-only (non-editable) form view, then click on More and Duplicate.

The duplication creates a new invoice in the **Draft** state. That enables you to modify it before approving it. Duplicating documents in OpenERP is an intelligent function, which enables the duplicated invoice to be given its own sequence number, today's date, and the draft state, even if the preceding invoice has been paid.

Creating a Supplier Invoice

The form that manages supplier invoices is very similar to the one for customer invoices. However, it has been adapted to simplify rapid data entry and monitoring of the amounts recorded.

Tipp - Entering Data

Many companies do not enter data on supplier invoices, but simply enter accounting data corresponding to the purchase journal.

This particularly applies to users that have focused on the accounting system rather than all the capabilities provided by an ERP system. The two approaches reach the same accounting result: some prefer one and others prefer the other depending on their skills.

However, when you use the Purchase Management functions in OpenERP you should work directly on invoices because they are provided from Purchase Orders or Goods Receipt documents.

To enter a new supplier invoice, use the menu ***Accounting*** ▸ ***Suppliers*** ▸ ***Supplier Invoices***.

Everything is similar to the customer invoice, starting with the Journal unless the default is acceptable, and then the Supplier, which will automatically complete the following fields

- Partner Account.

Unlike the customer invoice, you do not have to enter payment conditions – simply a Due Date if you want one. If you do not give a due date, OpenERP assumes that this invoice will be paid in cash. If you want to enter more complete payment conditions than just the due date, you can use the Payment Term field which you can find on the second tab Other Info.

Indicate the Currency if the invoice is not going to use the default currency, then you can enter the Invoice lines.

Just like the customer invoice, you have the choice of entering all the information manually or use a product to complete many of the fields automatically. When you enter a product, all of the following values are completed automatically:

- the product Account is completed from the properties of the product form or the Category of the product if nothing is defined on the product itself,
- the Taxes come from the product form and/or the partner form, based on the same principles as the customer invoice,
- the Quantity is set at 1 by default but can be changed manually,
- Unit Price : this is given by the cost price in the product form.

You can click (update) on the invoice in the Edit mode to get the details of tax calculated.

OpenERP automatically completes the Invoice Date and the accounting period.

Bemerkung - Dates and Accounting Periods

Accounting periods are treated as legal period declarations. For example, a tax declaration for an invoice depends on the accounting period and not on the date of invoicing.

Depending on whether your declarations are made monthly or quarterly, the fiscal year contains either twelve or four accounting periods.

The dates are shown in the document you created in the accounting system. They are used for calculating due dates.

The two pieces of information do not have to have the same date. If, for example, you receive an invoice dated 5th January which relates to goods or services supplied before 31st December, the invoice may be coded into the December accounting period and thus be recognized in that period for the tax declaration, while the invoice can remain 5th January which remains the basis of the due date for payment.

You can find that the amounts do not correspond with what your supplier has given you on paper for reasons that can include:

- the supplier made a calculation error,
- the amounts have been rounded differently.

Tipp - Rounding Tax

It often happens that a supplier adds 1 to the total because the tax calculation has been rounded upwards. Some tax amounts are not valid because of this rounding.

For example, it is impossible to arrive at the amount of 145.50 if you are working to a precision of 2 decimal places and a rate of 19.6%:

- 121.65 x 1.196 = 145.49
- 121.66 x 1.196 = 145.51

In this case you can add a row in the Taxes so that you can adjust a total.

When the totals tally, you can validate the invoice. OpenERP then generates the corresponding accounting entries. You can manage those entries using the Account fields on the invoice and on each of the invoice lines.

Credit Notes / Refunds

Entering a customer credit note is almost identical to entering a customer invoice. You just start from the menu ***Accounting*** ▸ ***Customers*** ▸ ***Customer Refunds***.

Similarly, entering a supplier credit note is the same as that of the supplier invoice, and so you use the menu ***Accounting*** ▸ ***Suppliers*** ▸ ***Supplier Refunds***.

It is easy to generate a credit note quickly from an existing invoice. To do this, select a customer or supplier invoice which is in **Paid** state and click the Refund button. OpenERP opens a new payment invoice form for you in the **Draft** state so that you can modify it before approval.

Below you find the different options displayed when you click the Refund button on an invoice.

- ***Create a Draft Refund***: Creates a draft credit note of the complete invoice. You can change this credit note, i.e. to make a partial credit note.
- ***Modify***: Creates a credit note for the existing invoice, validates the credit note and reconciles it with the invoice. The existing invoice is duplicated so that you can modify it.
- ***Cancel***: Creates a credit note for the complete invoice, validates the credit note and reconciles it with the invoice concerned.

Payments

An invoice is automatically marked as**Paid** by OpenERP once invoice entries have been reconciled with payment entries. You yourself do not have to mark the invoices as paid: OpenERP manages that when you reconcile your payments.

Tipp - Reconciling a Credit Note

Generally, you reconcile the invoice's accounting entries with their payment(s). But you can also reconcile an invoice with the entries from the corresponding credit note instead, to mutually cancel them.

You have seen the Register Payment button in the invoice form which is in Open state. This lets you enter payments and get entries reconciled very quickly.

You can also manage the payment of invoices when you are entering bank statements and cash transactions. These allow better control of financial transactions and permit greater flexibility in areas such as:

- advance and partial payments of invoices,
- payment of several invoices by several payments,
- fine-grained management of different due dates on the same invoices,
- management of adjustments if there are different amounts to those on the invoice.

Accounting Entries

Various methods can be used to create accounting entries. You have already seen how an invoice creates its own entries, for example.

This section deals with

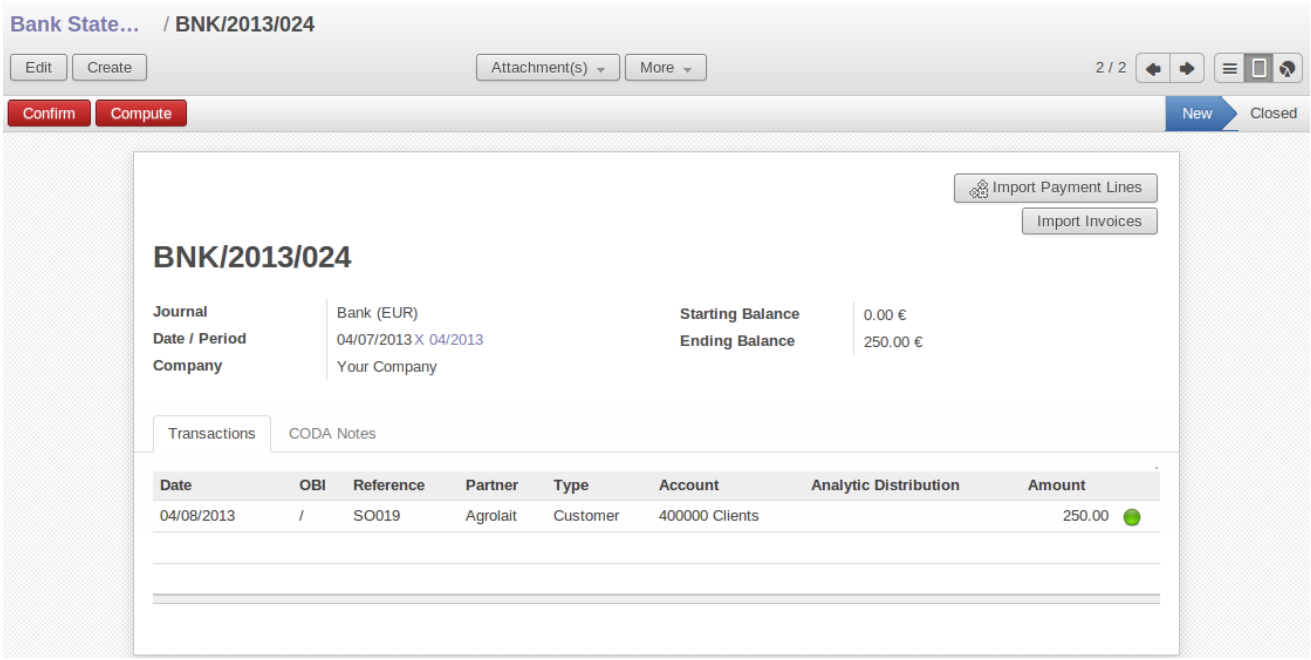
- managing bank statements,
- managing cash,
- manual journal entries.

Here we will show you how to enter financial transactions. In OpenERP, you can handle bank statements and also a cash register. Use different journals for these two kinds of transaction. According to the journal type selected, you will have a different screen.For more information about creating journals, refer to the Configuring Accounts from A to Z chapter.

Managing Bank Statements

OpenERP provides a visual tool for managing bank statements that simplifies data entry into accounts. As soon as a statement is validated, the corresponding accounting entries are automatically generated by OpenERP. So non-accounting people can enter financial transactions without having to worry about things such as credit, debit and counterparts.

To enter a bank statement, go to the menu***Accounting*** ▸ ***Bank and Cash*** ▸ ***Bank Statements*** A data entry form for bank statements then opens as shown in figure *Data Entry Form for a Bank Statement*.



Data Entry Form for a Bank Statement

The statement reference ***Name*** and the ***Date*** are automatically suggested by OpenERP. The ***Name*** will be filled with the statement number at confirmation of the bank statement. You can configure your own reference by managing sequences in the ***Settings*** ▸ ***Technical*** ▸ ***Sequences & Identifiers*** ▸ ***Sequences*** menu.

Then select the correct ***Journal***. Ideally, when you are configuring your company, you would create at least one journal for each bank account and one journal for petty cash in your company. So select the journal corresponding to the bank account whose statement you are handling.

The currency that you are using for the statement line is that of the selected journal. If you are entering statement lines for an account in American Dollars (USD), the amounts must be entered in **USD** . The currency is automatically converted into the company's main currency when you confirm the entry, using the rates in effect at the date of entry. (This means that you would need valid currency conversion rates to be created first. Go to ***Accounting*** ▸ ***Configuration*** ▸ ***Miscellaneous*** ▸ ***Currencies***menu.)

OpenERP automatically completes the initial balance based on the closing balance of the preceding statement. You can modify this value and force another value. This lets you enter statements in the order of your choice. Also if you have lost a page of your statement, you can enter the following ones immediately and you are not forced to wait for a duplicate from the bank.

So, complete the closing balance which corresponds to the new value in the account displayed on your bank statement. This amount will be used to control the operations before approving the statement.

Then you must enter all the lines on the statement. Each line corresponds to a banking transaction.

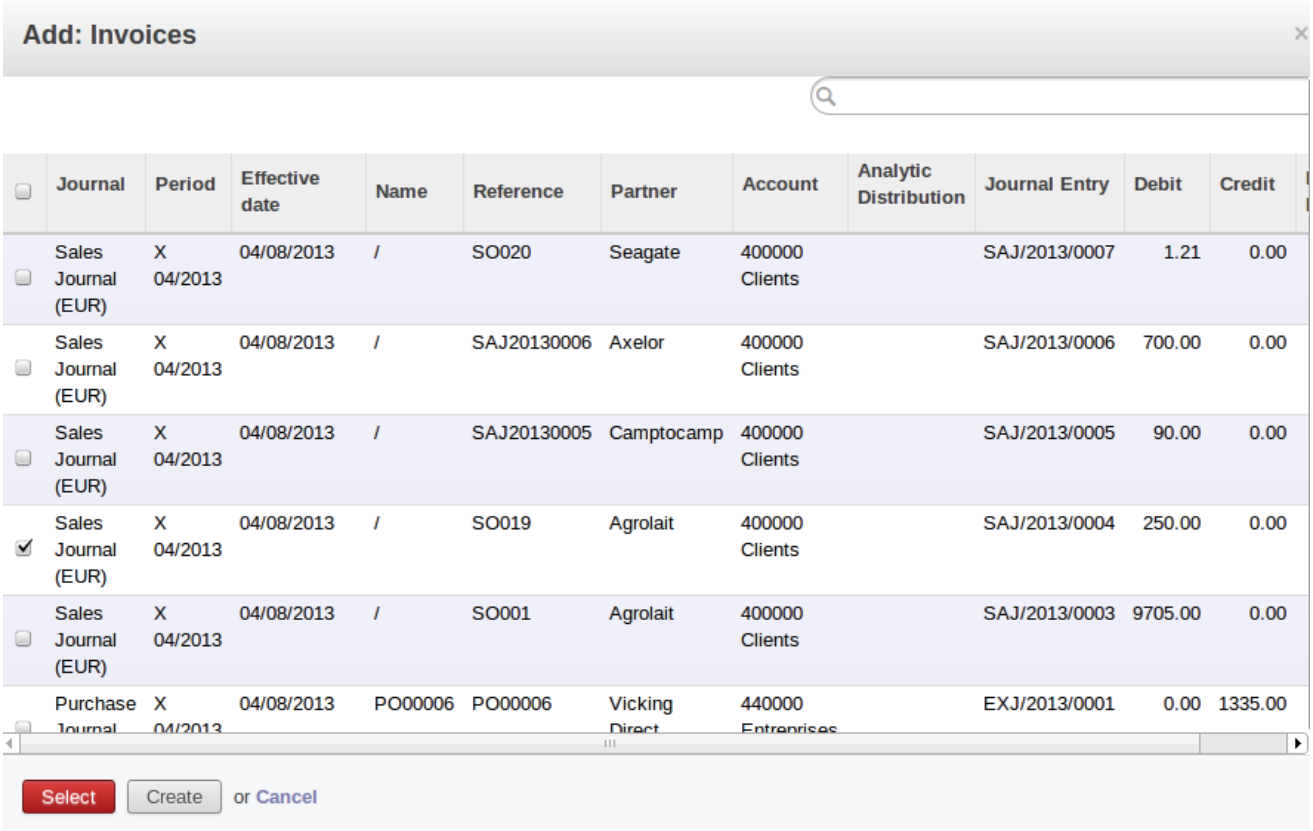
Enter the transaction line. You have two ways of entering financial transactions: manually or through the ***Import Invoices*** button.

Manual Entry

When you type the Partner name, OpenERP automatically proposes the corresponding centralisation account. The total amount due for the customer or supplier is pre-completed (***Amount***). This gives you a simple indication of the effective payment. You must then enter the amount that appears on your statement line: a negative sign for a withdrawal and a positive sign for a cash payment or deposit.

Import Invoices

Click the Import Invoices button, then click Add to select the invoices for which your payment will have to be reconciled. Click select to confirm your selection; the statement line will automatically be added with the corresponding reconciliation.



Reconciliation from Data Entry of the Bank Statement

Bemerkung - Reconciliation

Other methods of reconciliation are possible: from accounting entries, when saving the payment directly on an invoice, or using the automatic reconciliation tool.

You can carry out either a full or a partial reconciliation.

If you see a difference between the payment and the invoices to reconcile, you can enter t*Receivables and Payables*he difference in the second part of the form***Write-off***. You have to set an account for the adjustment. The main reasons explaining the difference are usually:

- profit or loss,
- exchange differences,
- discounts given for fast payment.

When the reconciliation is complete - that is, the payment is equal to the sum of the due payments and the adjustments - you can close the reconciliation form.

The reconciliation operation is optional – you could very well do it later or not do it at all. However, reconciliation has got two significant effects:

- marking that the invoices have been paid,

- preventing the payment and invoice amounts from appearing on customer reminder letters. Unless you have reconciled them, a customer will see the invoice and payment amounts on his reminder letter (which will not alter the balance due since they will just cancel each other out).

Finally, once you have entered the complete bank statement, you can validate it. OpenERP then automatically generates the corresponding accounting entries if the calculated balance equals the final balance, indicated in the Closing Balance field. The reconciled invoices are marked as paid at that point.

You can also enter general accounting entries, for example, banking costs. In such cases, you can enter the amounts directly in the corresponding general accounts.

A user with advanced accounting skills can enter accounting entries directly into the bank journal from ***Accounting*** ▸ ***Journal Entries*** ▸ ***Journal****Items*. The result is the same, but the operation is more complex because you must know the accounts to use and must have mastered the ideas of credit and debit.

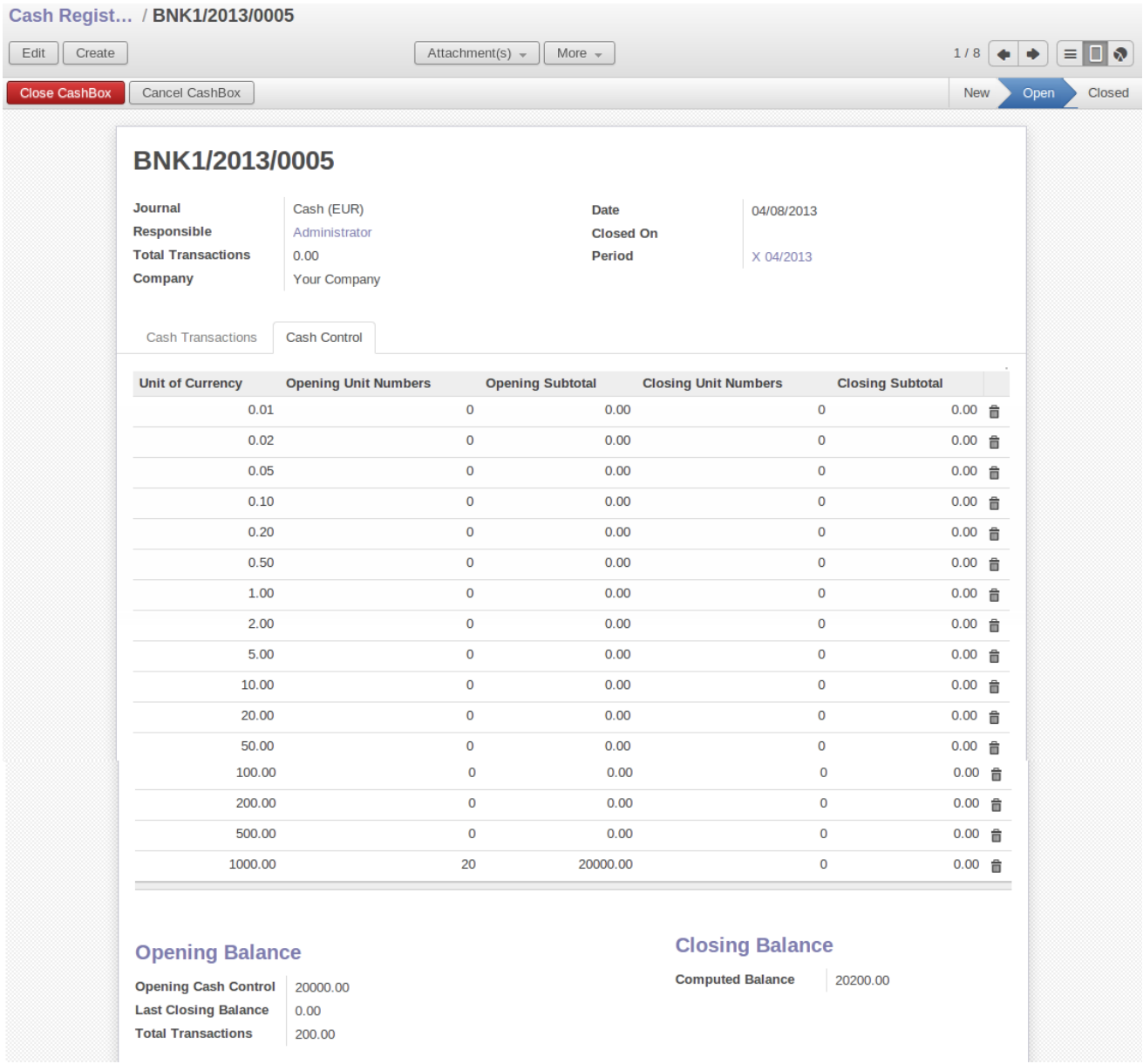
Cash Management

To manage cash, you can use the menu***Accounting*** ▸ ***Bank and Cash*** ▸ ***Cash Registers*** At the start of the day you set the opening amount of cash in the entry (***Opening Balance***). Then click on button ***Open CashBox***, after you can start making entries from the***Cash Transactions*** tab.

Bemerkung - Cash Control

You have to go menu***Accounting*** ▸ ***Configuration*** ▸ ***Journals*** ▸ ***Journals***and open the cash journal , then go to the Cash Register tab of form and select option **Opening With Last Losing Balance** and **Cash Control**.

Because if you do not select that options , than you will find Opening Cash Control field 0.00 of Cash Register form. So first you have to configure Journal.



Receivables and Payables
Defining the Cash Register

All the transactions throughout the day are then entered in this statement. When you close the cashbox, generally at the end of the day, enter the amounts on the ***Cash Control*** tab, in the ***Closing Balance*** section. Then confirm the statement to close the day's cash statement and automatically generate the corresponding accounting entries. Note that the ***Calculated Balance*** and the ***CashBox Balance*** need to be equal before you can close the cashbox.

Tipp - Confirming the Statement

Accounting entries are only generated when the cash statement is confirmed. So if the total statement has not been approved (that is to say during the day, in the case of petty cash), partner payments will not have been deducted from their corresponding account.

Manual Entry in a Journal*Receivables and PayablesReceivables and Payables*

Invoices and statements produce accounting entries in different journals. But you could also create entries directly in a journal (line by line) without using the dedicated journal views. This functionality is often used for miscellaneous entries.

To make manual entries, go to the following menu***Accounting*** ▸ ***Journal Entries*** ▸ ***Journal Items*** In the ***Journal*** field from the filter, select the journal in which you want to post. When you select a journal in this filter, you do not have to fill in the journal when posting new entries.

Let us give the example of a purchase invoice. Note, however, that these entries are usually generated automatically by OpenERP.

Click the ***Create*** button. Fill these fields manually in the following order:

- ***Reference***: reference from the invoice or entry,
- ***Effective date***: effective date of the entry, will be preset with today's date
- ***Period***: financial period, will be preset with the current period
- ***Partner***: partner concerned,
- ***Account***: general account (e.g. purchase account**Products Purchase**),
- ***Name***: description of the invoice line (e.g.**PC2**),
- ***Debit***: here you type the debit amount.
- ***Journal***: here you select the journal in which you want to post.
- ***Credit***: here you type the credit amount, e.g.**1196** .

Press the ***Enter*** key on your keyboard to validate the first line. The next draft move number is assigned to your accounting entry. Your line is then colored red and takes the **Unbalanced** state. When a line is in the draft state, it is not yet reflected in the accounts. OpenERP will not validate that line until the balancing entry is made (so the credit amounts must balance the debit amounts for that set of entries).

OpenERP now proposes the balancing accounting line to be filled in. If the account used (in this case account **600000**) includes taxes by default OpenERP automatically proposes taxes associated with the amount entered. At this stage you can modify and validate this second line of the account, or replace it with other information such as a second purchase line.

When you have entered all of the data from your lines, OpenERP automatically proposes counterpart entries to you, based on the credit entries.

Tipp - Completing a Balancing Entry

When an accounting entry is matched, OpenERP moves it to the**Valid** state automatically and prepares to enter the next data. Do not forget to definitely post the valid entries by clicking the Action button and selecting Post Journal Entries.

If you want to add some other balancing lines you can enter the number of the entry on the new line that you are entering. In such a case the whole line stays Draft until the whole set balances to zero.

Reconciliation Process

The reconciliation operation consists of matching entries in different accounts to indicate that they are related. Generally reconciliation is used for:

- matching invoice entries to payments, so that invoices are marked as paid and customers do not

get payment reminder letters for those entries (reconciliation in a customer account),

- matching deposits and cheque withdrawals with their respective payments,
- matching invoices and credit notes to cancel them out.

A reconciliation must be carried out on a list of accounting entries by an accountant, so that the sum of credits equals the sum of the debits for the matched entries.

Reconciliation in OpenERP can only be carried out in accounts that have been configured as reconcilable (the ***Reconcile*** field).

Tipp - Do not confuse **account** reconciliation and **bank statement** reconciliation

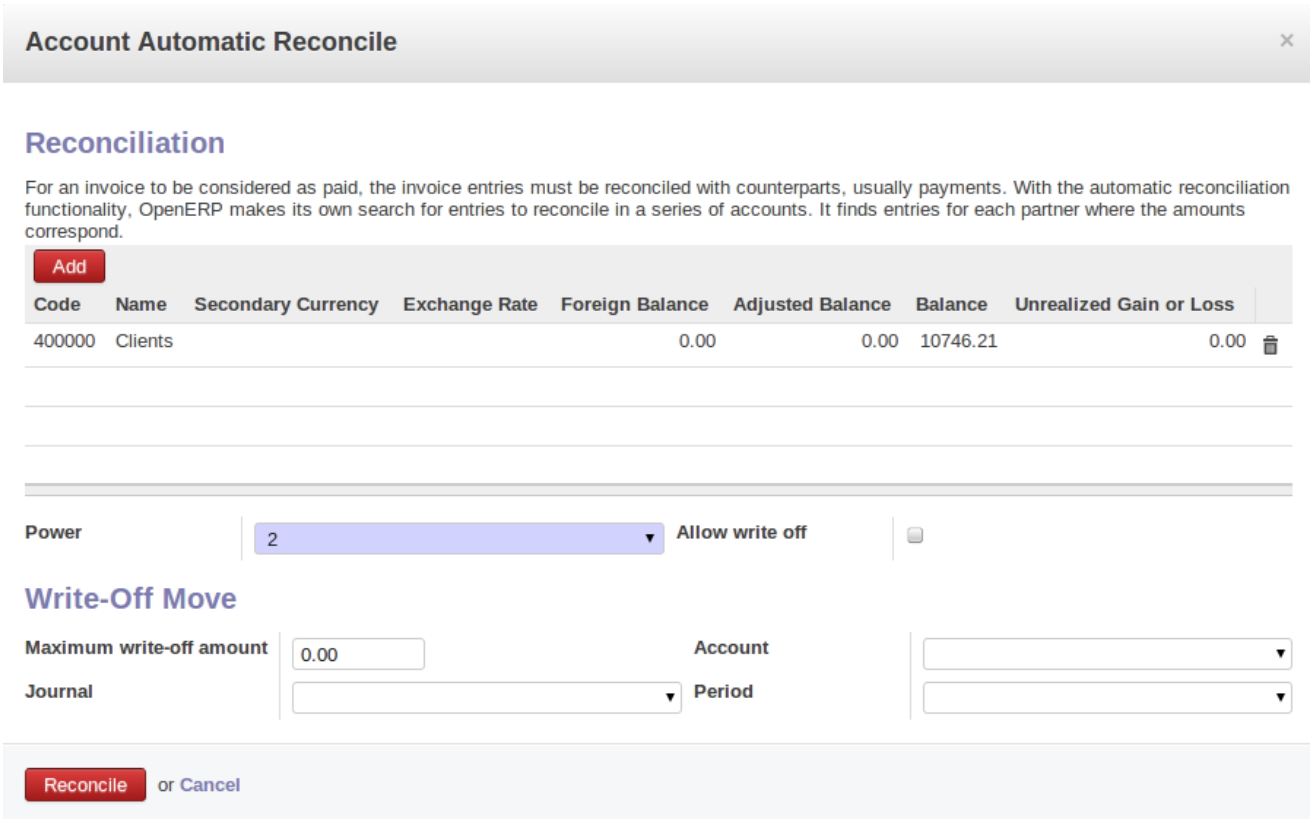
It is important not to confuse the reconciliation of accounting entries with bank statement reconciliation. Account reconciliation consists of linking account entries with each other, while statement reconciliation consists of verifying that your bank statement corresponds to the entries of that account in your accounting system.

There are different methods of reconciling entries. You have already seen the reconciliation of entries while doing data entry in an account. Automatic and manual reconciliations are described here.

Automatic Reconciliation

For automatic reconciliation, you will be asking OpenERP to search for entries to reconcile in a series of accounts. OpenERP tries to find entries for each partner where the amounts correspond.

Depending on the level of complexity that you choose (= power) when you start running the tool, the software could reconcile from two to nine entries at the same time. For example, if you select level 5, OpenERP will reconcile, for instance, three invoices and two payments if the total amounts correspond. Note that you can also choose a maximum write-off amount, if you allow payment differences to be posted.



Receivables and Payables
Form for Automatic Reconciliation

To start the reconciliation tool, click ***Accounting*** ▸ ***Periodical Processing*** ▸ ***Reconciliation*** ▸ ***Automatic Reconciliation***.

A form opens, asking you for the following information:

- ***Add Accounts to Reconcile*** : you can select one, several or all reconcilable accounts,
- the Reconciliation ***Power*** (from **2** to **4**),
- checkbox ***Allow write off*** to determine whether you will allow for payment differences.
- information needed for the adjustment (details for the ***Write-Off Move***).

Bemerkung - Reconciling

You can reconcile any account, but the most common accounts are:

- all the Accounts Receivable – your customer accounts of type Debtor,
- all the Accounts Payable – your supplier accounts of type Creditor.

The write-off option enables you to reconcile entries even if their amounts are not exactly equivalent. For example, OpenERP permits foreign customers whose accounts are in different currencies to have a difference of up to, say, 0.50 units of currency and put the difference in a write- off account.

Tipp - Limit Write-off Adjustments

You should not make the adjustment limits too large. Companies that introduced substantial automatic write-off adjustments have found that all employee expense reimbursements below the limit were written off automatically!

Manual Reconciliation

For manual reconciliation, open the entries for reconciling an account through the menu ***Accounting*** ▸ ***Periodical Processing*** ▸ ***Reconciliation*** ▸ ***Manual Reconciliation***.

You can also call up manual reconciliation from any screen that shows accounting entries.

Select entries that you want to reconcile. OpenERP indicates the sum of debits and credits for the selected entries. When these are equal you can click the ***Reconcile Entries*** button to reconcile the entries.*Receivables and Payables*

Bemerkung - *Example Real Case of Using Reconciliation*

Suppose that you are entering customer order details. You wonder what is outstanding on the customer account (that is the list of unpaid invoices and unreconciled payments). To review it from the order form, navigate to the *Partner* record and select the view ***Receivables and Payables***. OpenERP opens a history of unreconciled accounting entries on screen.

After running the Reconcile Entries wizard, these lines can no longer be selected and will not appear when the entries are listed again. If there is a difference between the two entries, OpenERP suggests you to make an adjustment. This "write-off" is a compensating entry that enables a complete reconciliation. You must therefore specify the journal and the account to be used for the write-off.

For example, if you want to reconcile the following entries:

Entries for reconciliation

Date	Ref.	Description	Account	Debit	Credit
12 May 11	INV23	Car hire	4010	544.50	
25 May 11	INV44	Car insurance	4010	100.00	
31 May 11	PAY01	Invoices n° 23, 44	4010		644.00

On reconciliation, OpenERP shows a difference of 0.50. At this stage you have two possibilities:

- do not reconcile, and the customer receives a request for 0.50,
- reconcile and accept an adjustment of 0.50 that you will take from the P&L account.

OpenERP generates the following entry automatically:

Write-off account

Date	Ref.	Description	Account	Debit	Credit
03 Jun 11	AJ001	Adjustment: profits and losses	4010		0.50
03 Jun 11	AJ001	Adjustment: profits and losses	XXX	0.50	

The two invoices and the payment will be reconciled in the first adjustment line. The two invoices will then be automatically marked as paid.

Payment Management

OpenERP gives you forms to prepare, validate and execute payment orders. This enables you to manage issues such as:

1. Payment provided on several due dates.
2. Automatic payment dates.
3. Separating payment preparation and payment approval in your company.
4. Preparing an order during the week containing several payments, then creating a payment file at the end of the week.
5. Creating a file for electronic payment which can be sent to a bank for execution.
6. Splitting payments depending on the balances available in your various bank accounts.

How to Manage your Payment Orders?

To use the tool for managing payments you must first install the module**account_payment**, or Go to menu ***Settings*** ▸ ***Configuration*** ▸ ***Accounting***in eInvoicing & Payments section tick**Manage payment orders**. Supplier Payments are part of the core OpenERP system.

The system lets you enter a series of payments to be carried out from your various bank accounts. Once the different payments have been registered, you can validate the payment orders. During validation you can modify and approve the payment orders, sending the order to the bank for electronic funds transfer.

For example, if you have to pay a supplier's invoice for a large amount you can split the payments amongst several bank accounts according to their available balance. To do this, you can prepare several draft orders and validate them once you are satisfied that the split is correct.

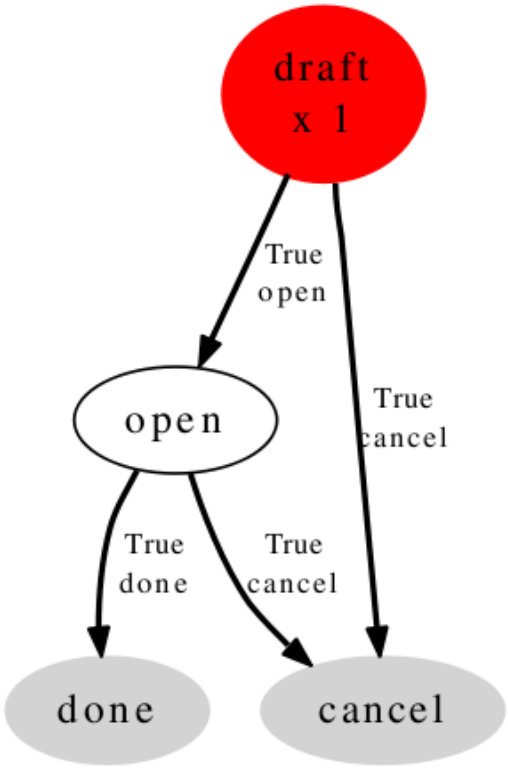
This process can also be regularly scheduled. In some companies, a payment order is kept in **Draft** state and payments are added to the draft list each day. At the end of the week, the accountant reviews and confirms all the waiting payment orders.

Once the payment order is confirmed, there is still a validation step for an accountant to carry out. You could imagine that these orders would be prepared by an accounts clerk, and then approved by a manager to go ahead with payment.

Tipp - Payment Workflow

An OpenERP workflow is associated with each payment order. Select a payment order, and if you are in the developer mode Click on Debug View# and then select print workflow to print the payment order workflow.

You can integrate more complex workflow rules to manage payment orders by adapting the workflow. For example, in some companies payments must be approved by a manager under certain cash flow or value limit conditions.

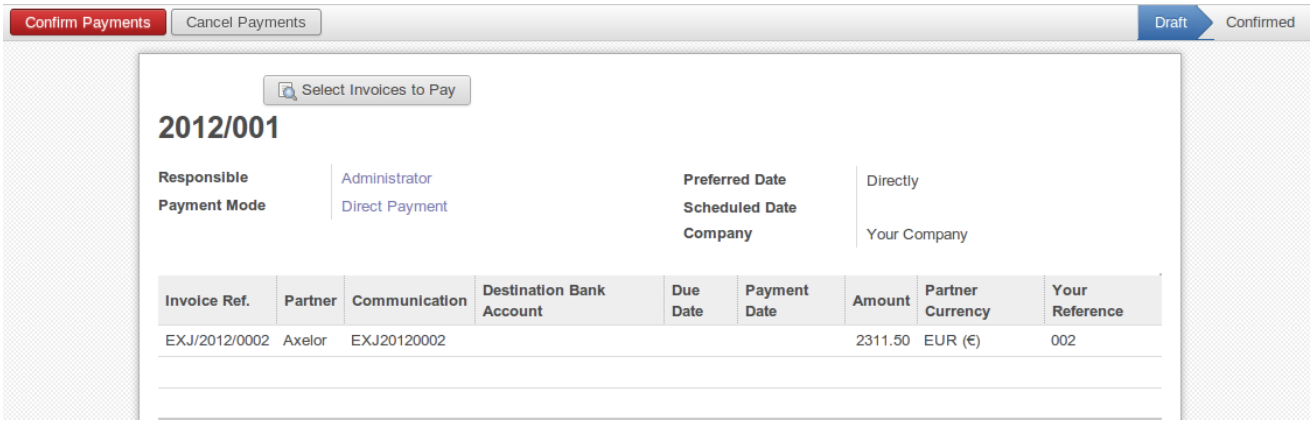


Payments Workflow

In small businesses it is usually the same person who enters the payment orders and who validates them. In this case you should just click the two buttons, one after the other, to confirm the payment.

Prepare and Transfer Orders

To enter a payment order, use the menu***Accounting*** ▸ ***Payment*** ▸ ***Payment Orders***



Entering a Payment Order

OpenERP then proposes a reference number for your payment order.

You then have to choose a payment mode from the various methods available to your company. These have to be configured when you set up the accounting system using the menu ***Accounting*** ▸ ***Configuration*** ▸ ***Miscellaneous*** ▸ ***Payment Mode***. Some examples are:

- Cheques
- Bank transfer,
- Visa card on a bank account,
- Petty cash.

Then, you set the ***Preferred date*** for payment:

- **Due date** : each operation will be effected at the invoice deadline date,
- **Directly** : the operations will be effected when the orders are validated,
- **Fixed date** : you must specify an effective payment date in the***Scheduled date*** *if fixed* field that follows.

The date is particularly important for the preparation of electronic transfers, because banking interfaces enable you to select a future execution date for each operation. So to configure your OpenERP, most simply you can choose to pay all invoices automatically by their deadline.

You must then select the invoices to pay. They can be entered manually in the field***Payment Line***, but it is easier to add them automatically. For that, click ***Select Invoices to Pay*** and OpenERP will then propose lines with payment deadlines. For each deadline you can see:

- the invoice ***Payment Date***,
- the reference ***Invoice Ref.***,
- the deadline for the invoice,

- the amount to be paid in the partner's default currency.

You can then accept the payment proposed by OpenERP, or select the entries that you will pay or not pay on that order. OpenERP gives you all the necessary information to make a payment decision for each line item:

- account,
- supplier's bank account,
- amount that will be paid,
- amount to pay,
- the supplier,
- total amount owed to the supplier,
- due date,
- date of creation.

You can modify the first three fields on each line: the account, the supplier's bank account and the amount that will be paid. This arrangement is very practical because it gives you complete visibility of all the company's trade payables. You can pay only a part of an invoice, for example, and in preparing your next payment order OpenERP automatically suggests payment of the remainder owed.

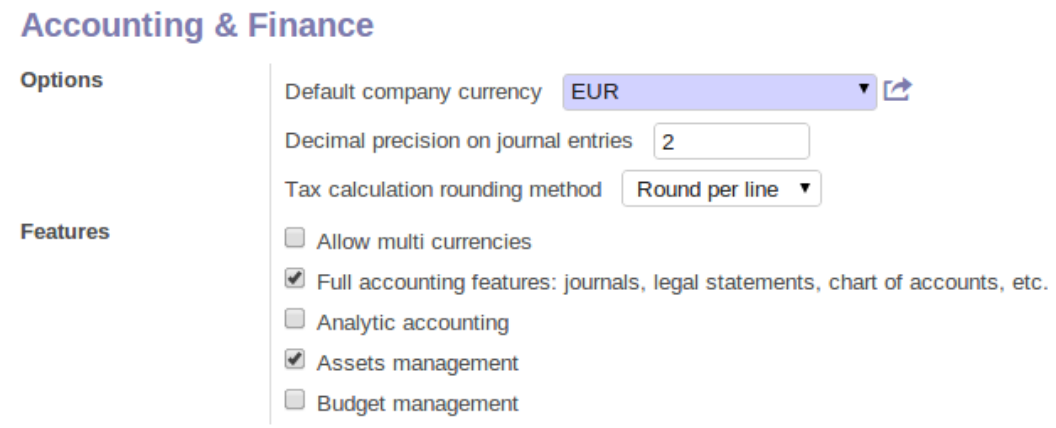
When the payment has been prepared correctly, click ***Confirm Payments***. The payment then changes to the **Confirmed** state and a new button appears that can be used to start the payment process.

You can print the payment order to send it to the bank by clicking the ***Print*** ▸ ***Payment Order*** at the top of the screen.

Asset Management

> *Financial and accounting asset management. To manage the assets owned by a company or an individual and to keep track of depreciation occurred on those assets. Also allows to create accounting moves of the depreciation lines.*

You can manage your assets and accounting related to those assets using account_asset module. Using the menu ***Settings*** ▸ ***Accounting*** ▸ ***Account***, Accounting & Finance tick **Assets management** and click on Apply button for install the account_assert module.



Configuration for installation of account_asset module

Using the menu *Accounting* ▸ *Assets* ▸ *Assets,* you can store all information related to your assets like how much depreciation can be occurred, depreciation amount based on selected depreciation method, date on which the asset is purchased, purchase value of the asset, supplier of the asset etc.

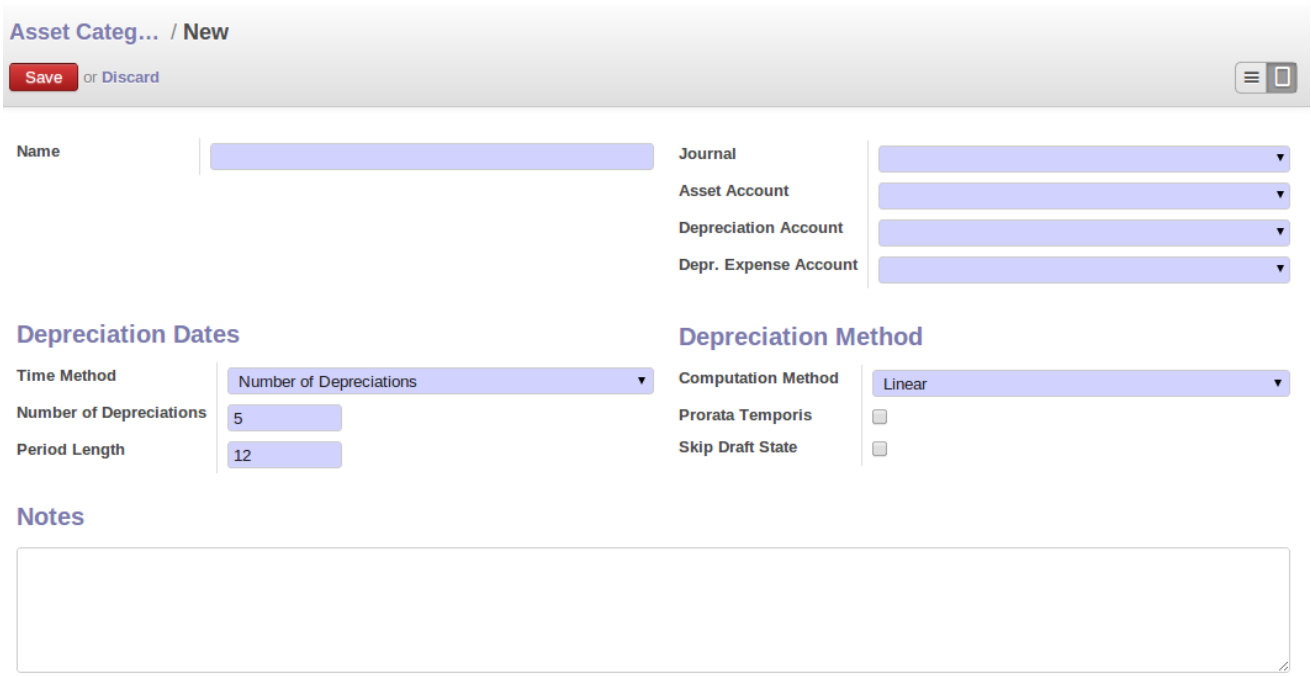
You can also see different states of assets. If the asset is confirmed then the depreciation lines can be posted in the accounting. An asset can be closed manually when depreciation is over or it will be closed automatically when the last depreciation line is posted.

You can also see asset hierarchy by using menu***Accounting*** ▸ ***Assets*** ▸ ***Asset Hierarchy***.

The statistical report for assets can be seen using the menu***Reporting*** ▸ ***Accounting*** ▸ ***Assets Analysis***.

Define asset categories

You can create asset categories by using the menu:***Accounting*** ▸ ***Configuration*** ▸ ***Financial Accounting*** ▸ ***Assets*** ▸ ***Asset Categories*** and click ***Create***.



Asset categories form

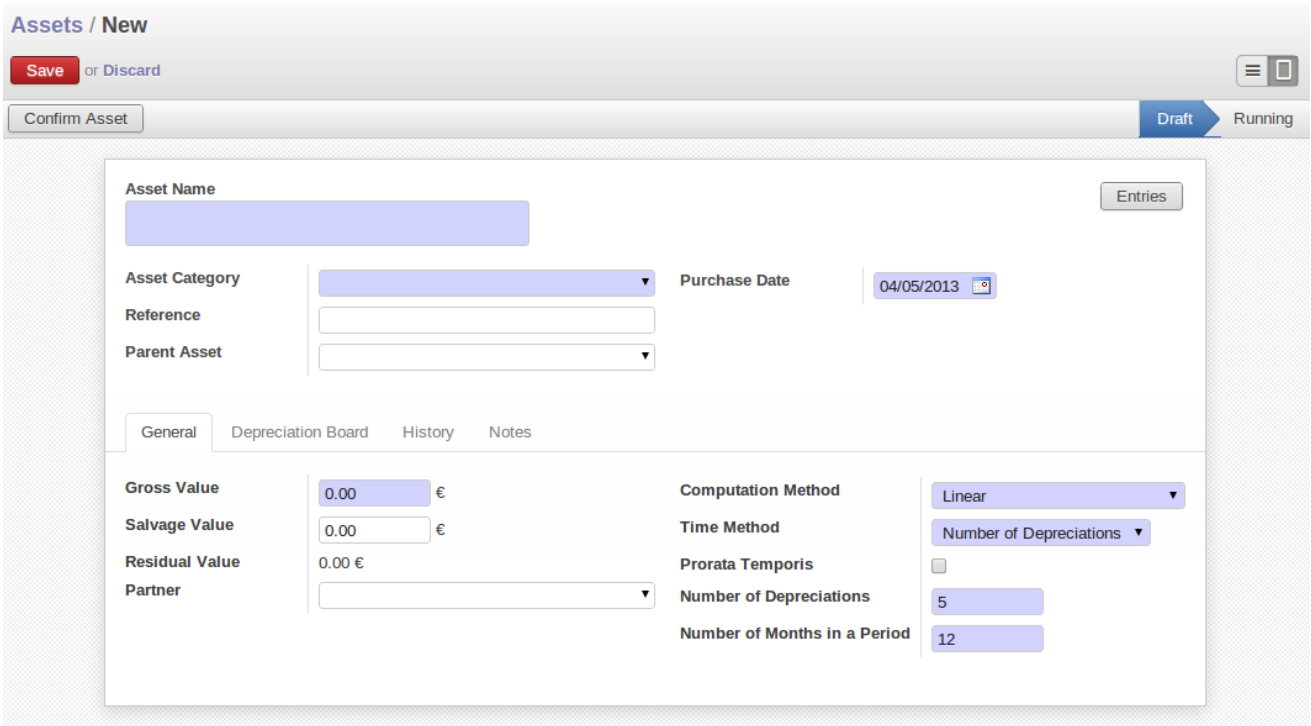
You can configure the following information:

- ***Name*** : A name for asset category

- ***Journal***: A journal to store the accouting entries mostly purchase or expense journal.
- ***Asset Account***: This account will be credited when depreciation line is posted.
- ***Depreciation Account***: Account, same as Asset Account or it can be different for storing depreciation separately.
- ***Depr. Expense Account***: Account which will be debited when depreciation line is posted.
- ***Time Method***: Either **Number of Depreciations** or **Ending Date**.
- ***Number of Depreciations***: If time method is**Number of Depreciations** you must specify a number of depreciation lines.
- ***Ending Date***: If time method is**Ending Date** then you must specify the ending date and the depreciation date won't go beyond this date.
- ***Period Length***: Time duration between two depreciations, in months.
- ***Computation Method***: Either **Linear** or Degressive.
- ***Degressive Factor***: If computation method is**Degressive** then you must specify degressive factor. This is used to calculate depreciation lines by multiplying it with remaining depreciation value.
- ***Prorata Temporis***: If **True**, first depreciation entry will be calculated from purchase date.
- ***Skip Draft State***: If **True**, assets of this category will be automatically confirmed when created from invoice.

Manage assets and depreciation

You can create asset by using the menu***Accounting*** ▸ ***Assets*** ▸ ***Assets*** and click ***Create***.



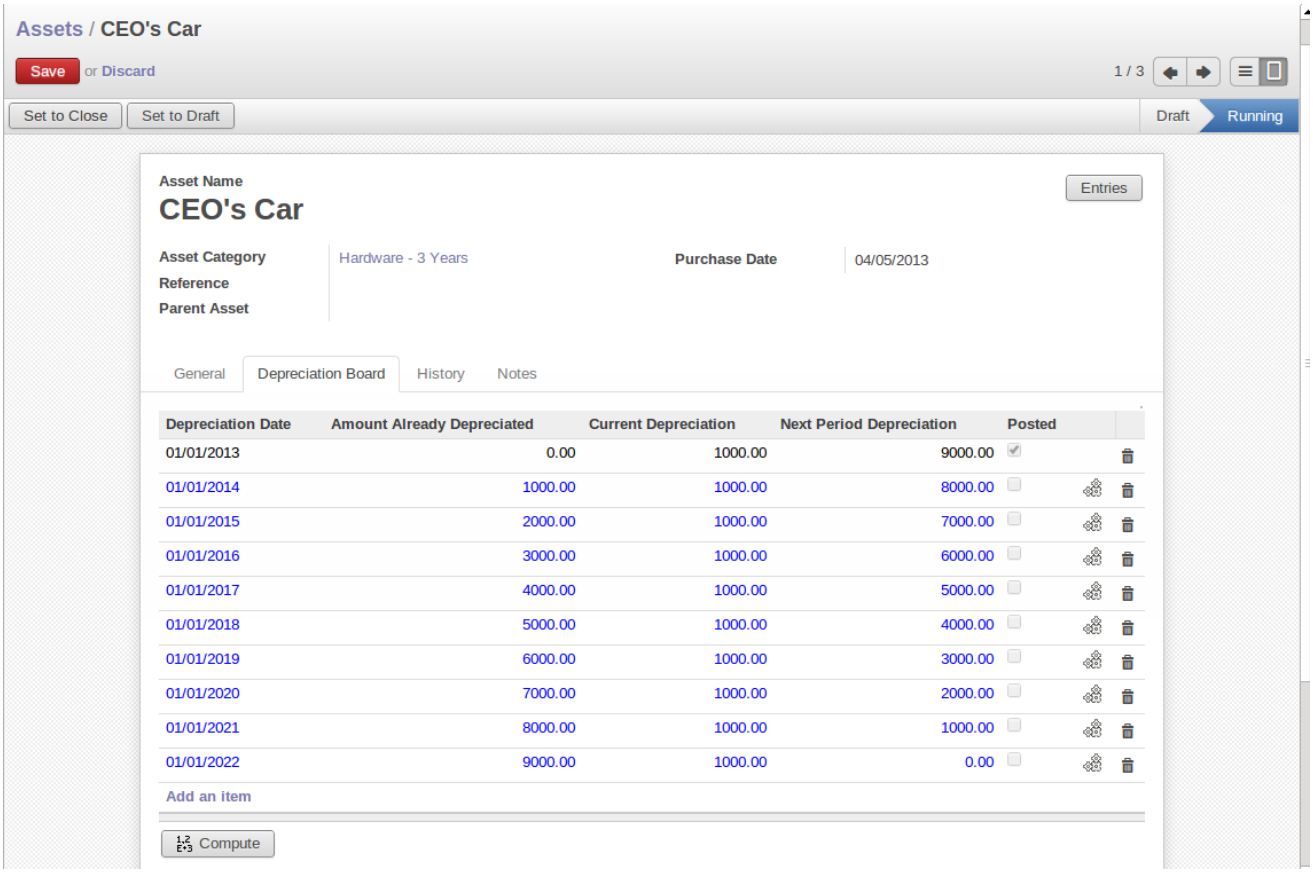
Assets form

You can configure the following information:

- ***Asset*** : A name for an asset.
- ***Asset Category***: Select a category for the asset.
- ***Gross Value***: Gross purchase amount of the asset.
- ***Salvage Value***: Amount which we plan to have that cannot be depreciated.
- ***Purchase Date*** : Date on which asset is purchased.
- ***Partner*** : Supplier of the asset.

After computing the depreciation you get the following values in Depreciation board based on selected methods and period. Now you can confirm the asset by clicking on ***Confirm Asset*** button. The state of the asset will now be **Running**.

For the confirmed assets you can post the depreciation lines by clicking on ***Create Move*** button on depreciation line. You can also see that ***Depreciation Amount*** on depreciation line is deducted from the ***Residual Value***.



Depreciation board

You can see the accounting entry for the posted depreciation lines on ***History*** tab as shown below:

General | Depreciation Board | History | Notes

Journal	Period	Effective date	Name	Reference	Partner	Account	Journal Entry	Debit	Credit	Reconcile Ref
Expenses Journal - (test) (EUR)	X 04/2013	04/05/2013	CEO's Car	1/1		X2110 Expenses - (test)	*4	1000.00	0.00	
								1000.00	0.00	

Date	History name	User	Time Method	Number of Depreciations	Period Length	Ending date

Accounting entry for posted depreciation line

You can get a complete report for account move entries of assets in the Balance Sheet report by using the menu ***Accounting*** ▸ ***Reporting*** ▸ ***Legal reports*** ▸ ***Accounting Reports*** ▸ ***Balance Sheet*** You can select a related Chart of Accounts and check Landscape Mode field and click on *Print* to generate a PDF report with your specifications. You will get the following report.

04/05/2013 08:55 **Your Company** 1 / 1

Balance Sheet

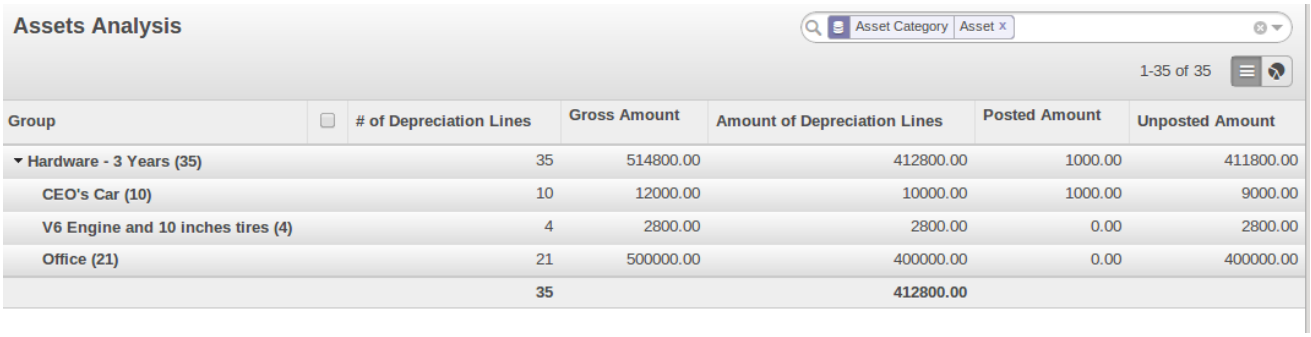
Chart of Accounts	Fiscal Year	Filter By
Chart For Automated Tests	Fiscal Year X 2013	No Filters

Name	Debit	Credit	Balance
Liability	**1000.00 €**	**1850.00 €**	**-850.00 €**
Profit (Loss) to report	**1000.00 €**	**1850.00 €**	**-850.00 €**
Liability	**0.00 €**	**0.00 €**	**0.00 €**
Assets	**3900.00 €**	**3050.00 €**	**850.00 €**
X10 Assets - (test)	**3900.00 €**	**3050.00 €**	**850.00 €**
X100 Fixed Assets - (test)	0.00 €	1000.00 €	-1000.00 €
X1000 Fixed Asset Account - (test)	*0.00 €*	*1000.00 €*	*-1000.00 €*
X101 Net Current Assets - (test)	3900.00 €	2050.00 €	1850.00 €
X1100 Current Assets - (test)	*3900.00 €*	*2050.00 €*	*1850.00 €*
X11003 Output VAT - (test)	0.00 €	100.00 €	-100.00 €
X11005 Cash - (test)	1950.00 €	0.00 €	1950.00 €

Balance Sheet PDF report

Analysis of Assets

Accounting ▸ ***Reporting*** ▸ ***Statistic Reports*** ▸ ***Assets Analysis***will give you the statistical report of assets. This report is enhanced by various filters and groupings to assist you in your search and required information.



Assets Analysis

Asset Category | Asset x

1-35 of 35

Group	# of Depreciation Lines	Gross Amount	Amount of Depreciation Lines	Posted Amount	Unposted Amount
Hardware - 3 Years (35)	35	514800.00	412800.00	1000.00	411800.00
CEO's Car (10)	10	12000.00	10000.00	1000.00	9000.00
V6 Engine and 10 inches tires (4)	4	2800.00	2800.00	0.00	2800.00
Office (21)	21	500000.00	400000.00	0.00	400000.00
	35		**412800.00**		

Asset Analysis report

Financial Analysis

> *This chapter is dedicated to statutory taxation and financial reporting from OpenERP. Whether you need reports about customers and suppliers, or statements for various statutory purposes, OpenERP enables you to carry out a whole range of parametric analyses regarding the financial health of your company.*

Whether you want to analyze the general health of your company or review the status of an Account Receivable in detail, your company's accounts are the place to define your various business indicators.

To show you the most accurate picture of your business, OpenERP's accounting reports are flexible, and the results are calculated in real time. This enables you to automate recurring actions and to change your operations quickly when a company-wide problem (such as cash reserves dropping too low or receivables climbing too high) or a local problem (a customer that has not paid, or a project budget overspend) occurs.

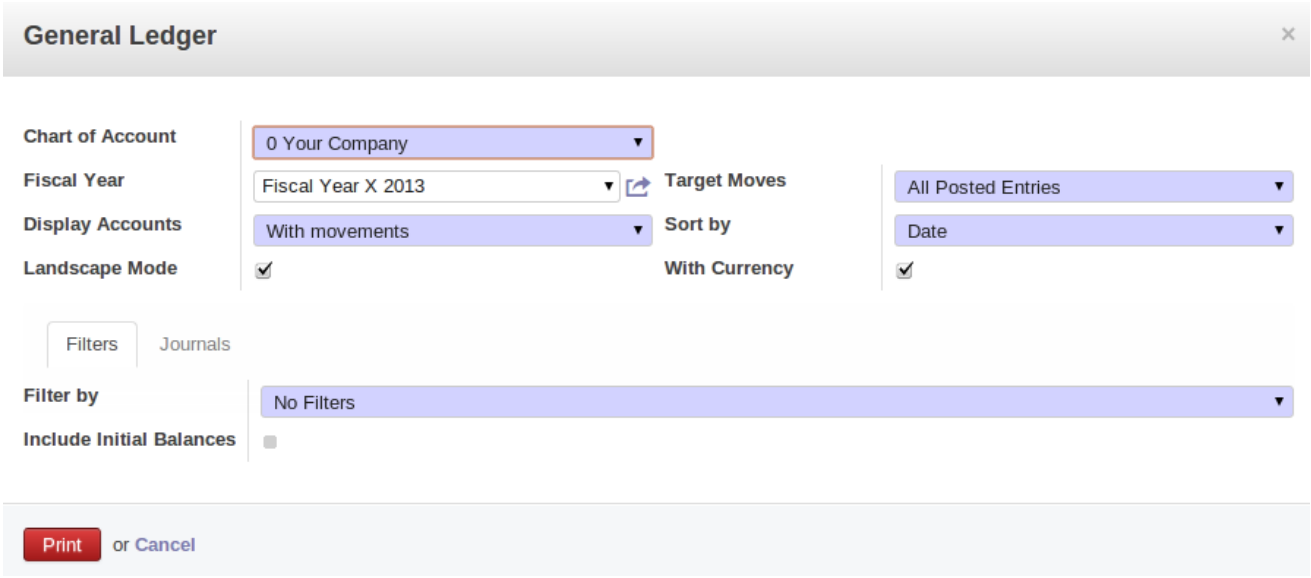
This chapter describes the various reports and financial statements supplied by OpenERP's accounting modules. It also describes how OpenERP handles purchase and sales taxation, and the related tax reporting.

For this chapter you should start with a fresh database that includes demo data, with **sale** and its dependencies installed and no particular chart of accounts configured.

General Ledger and Trial Balance

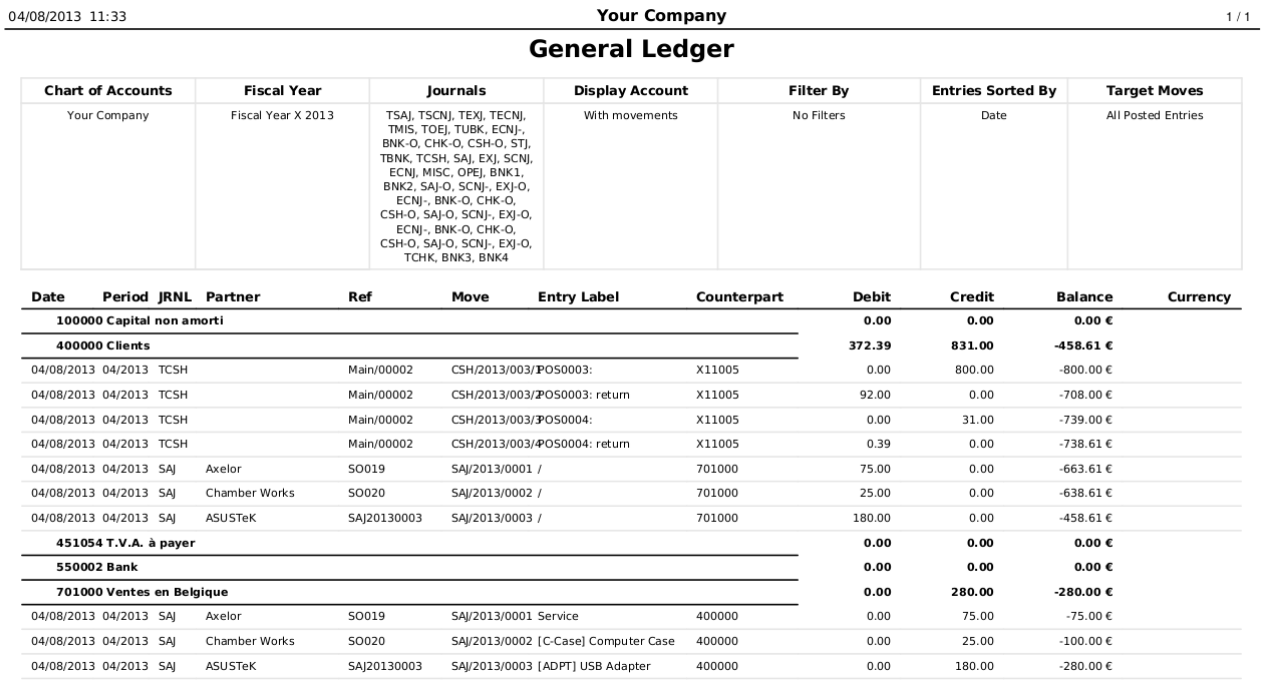
A general ledger includes accounts with their debits and credits, and shows all transactions in an account, for one period, for several periods or for a financial year.

To print the General Ledger, you can use the menu***Accounting*** ▸ ***Reporting*** ▸ ***Legal Reports*** ▸ ***Accounting Reports*** ▸ ***General Ledger***. You will find the following wizard which is used to filter the resulting report.



Preparing a General Ledger

Select the proper options and journal(s) from the above wizard to print theGeneral Ledger. The report can also be filtered by date or by period. When you choose to print the general ledger from one date to another, or for one or more periods, you can also have the initial balances printed for the periods preceding the periods you selected. You can sort the report by date or by journal / partner.



04/08/2013 11:33 — Your Company — 1 / 1

General Ledger

Chart of Accounts	Fiscal Year	Journals	Display Account	Filter By	Entries Sorted By	Target Moves
Your Company	Fiscal Year X 2013	TSAJ, TSCNJ, TEXJ, TECNJ, TMIS, TOEJ, TUBK, ECNJ-, BNK-O, CHK-O, CSH-O, STJ, TBNK, TCSH, SAJ, EXJ, SCNJ, ECNJ, MISC, OPEJ, BNK1, BNK2, SAJ-O, SCNJ-, EXJ-O, ECNJ-, BNK-O, CHK-O, CSH-O, SAJ-O, SCNJ-, EXJ-O, ECNJ-, BNK-O, CHK-O, CSH-O, SAJ-O, SCNJ-, EXJ-O, TCHK, BNK3, BNK4	With movements	No Filters	Date	All Posted Entries

Date	Period	JRNL	Partner	Ref	Move	Entry Label	Counterpart	Debit	Credit	Balance	Currency
100000 Capital non amorti								**0.00**	**0.00**	**0.00 €**	
400000 Clients								**372.39**	**831.00**	**-458.61 €**	
04/08/2013	04/2013	TCSH		Main/00002	CSH/2013/003/1	POS0003:	X11005	0.00	800.00	-800.00 €	
04/08/2013	04/2013	TCSH		Main/00002	CSH/2013/003/2	POS0003: return	X11005	92.00	0.00	-708.00 €	
04/08/2013	04/2013	TCSH		Main/00002	CSH/2013/003/3	POS0004:	X11005	0.00	31.00	-739.00 €	
04/08/2013	04/2013	TCSH		Main/00002	CSH/2013/003/4	POS0004: return	X11005	0.39	0.00	-738.61 €	
04/08/2013	04/2013	SAJ	Axelor	SO019	SAJ/2013/0001	/	701000	75.00	0.00	-663.61 €	
04/08/2013	04/2013	SAJ	Chamber Works	SO020	SAJ/2013/0002	/	701000	25.00	0.00	-638.61 €	
04/08/2013	04/2013	SAJ	ASUSTeK	SAJ20130003	SAJ/2013/0003	/	701000	180.00	0.00	-458.61 €	
451054 T.V.A. à payer								**0.00**	**0.00**	**0.00 €**	
550002 Bank								**0.00**	**0.00**	**0.00 €**	
701000 Ventes en Belgique								**0.00**	**280.00**	**-280.00 €**	
04/08/2013	04/2013	SAJ	Axelor	SO019	SAJ/2013/0001	Service	400000	0.00	75.00	-75.00 €	
04/08/2013	04/2013	SAJ	Chamber Works	SO020	SAJ/2013/0002	[C-Case] Computer Case	400000	0.00	25.00	-100.00 €	
04/08/2013	04/2013	SAJ	ASUSTeK	SAJ20130003	SAJ/2013/0003	[ADPT] USB Adapter	400000	0.00	180.00	-280.00 €	

General Ledger

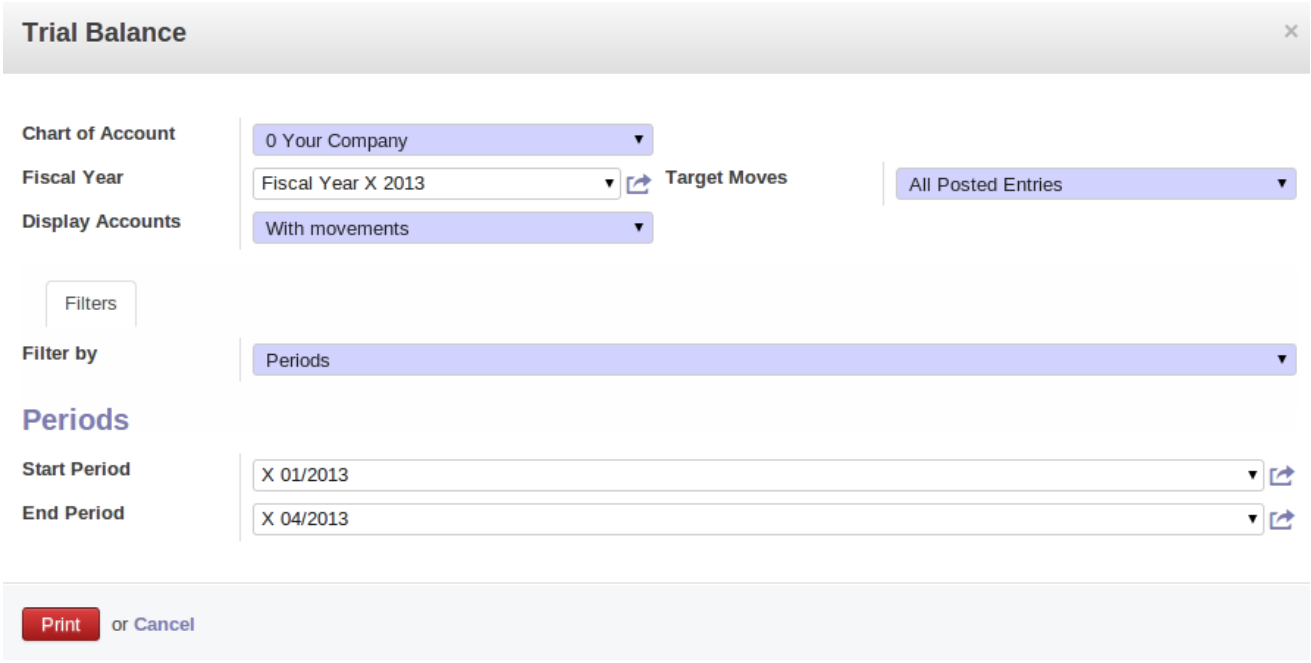
Tipp - General Ledger for one or more accounts

When you want to print the general ledger for one or more accounts, go to the menu***Accounting*** ▸

Configuration ▸ ***Accounts*** ▸ ***Accounts***. Select the account(s) for which you want to print the general ledger and click the ***Print*** ▸ ***General Ledger*** report at the top of the screen.

While the general ledger displays transactions for an account, a trial balance will show one amount (either debit or credit) for each account. The aim of the trial balance is to prove that the total of all debit balances is equal to the total of all credit balances.

To print the Trial Balance, go to the menu ***Accounting*** ▸ ***Reporting*** ▸ ***Legal Reports*** ▸ ***Accounting Reports*** ▸ ***Trial Balance***. This report allows you to print or generate a PDF of your trial balance, allowing you to quickly check the balance of each of your accounts in a single report. A trial balance may include all accounts (even the ones without balance), only accounts with transactions or accounts of which the balance is not equal to zero. You can print a trial balance for all posted entries (meaning entries with a Valid state) or all entries, in which case the report will also print entries in a draft state. This option is useful, for instance, when your new financial year has just been opened, and you are preparing miscellaneous entries in the previous financial year.



Trial Balance

Tipp - Reporting for One or More Accounts

You can print the Trial Balance report directly from the Account form too.

Balance Sheet and Profit & Loss Report

OpenERP also offers a Balance Sheet and a Profit & Loss Report.

A Balance Sheet is a financial statement that summarises the assets, liabilities and shareholders' equity of a company at a specific point in time. These three balance sheet segments give investors an idea as to what the company owns and owes, as well as the amount invested by the shareholders.

The balance sheet complies with the formula below:

Assets = Liabilities + Shareholders' Equity.

A balance sheet is often described as a snapshot of a company's financial condition.

The accounts displayed in the Balance Sheet are linked to an account type for which the **P&L / Balance**

Sheet parameter is set to Balance Sheet (either Assets or Liabilities account). To configure ***Account Types***, go to ***Accounting*** ▸ ***Configuration*** ▸ ***Accounts*** ▸ ***Account Types***

The Balance Sheet can be printed from the menu ***Accounting*** ▸ ***Reporting*** ▸ ***Legal Reports*** ▸ ***Accounting Reports*** ▸ ***Balance Sheet***. You can print this report in Landscape mode too.

Tipp - Reserve & Profit and Loss Account

A Balance Sheet needs a reserve & profit and loss account, but instead of entering it each time you start the report, you can add a default Reserve & Profit and Loss account through the menu ***Settings*** ▸ ***Companies*** ▸ ***Companies*** on the **Configuration** tab. This account will be used as a counterpart to balance your accounts.

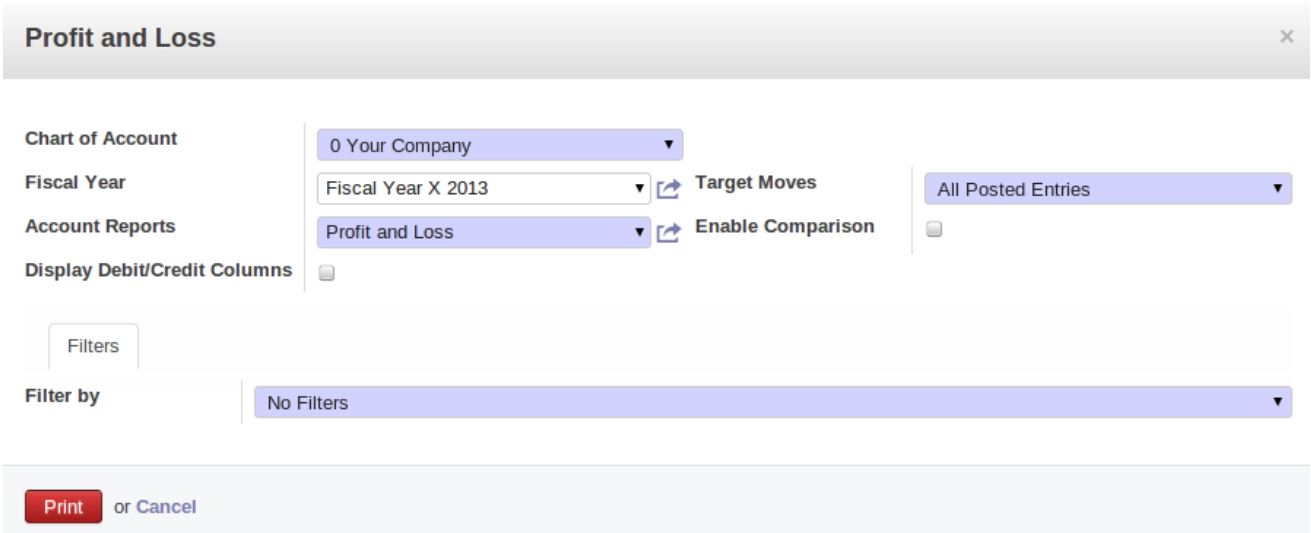
The Profit & Loss Report is a financial statement which gives a summary of the revenues, costs and expenses during a specific period of time. Such a report provides information that shows the ability of a company to generate profit by increasing revenue and reducing costs. The P&L statement is also known as an "Income Statement".

The purpose of the Profit & Loss Report is to show managers and accountants whether the company earned or lost money during the report period.

In general, the Profit and Loss report will be used to determine profit ratios, to examine sales prices and costs, and to set marketing budgets, for instance.

The accounts displayed in the Profit and Loss Report are linked to an account type for which the **P&L / Balance Sheet** parameter is set to Profit & Loss (either Expense or Income account). To configure Account types, go to ***Accounting*** ▸ ***Configuration*** ▸ ***Accounts*** ▸ ***Account Types***.

The Profit and Loss report can be printed from the menu ***Accounting*** ▸ ***Reporting*** ▸ ***Legal Reports*** ▸ ***Accounting Reports*** ▸ ***Profit And Loss***.

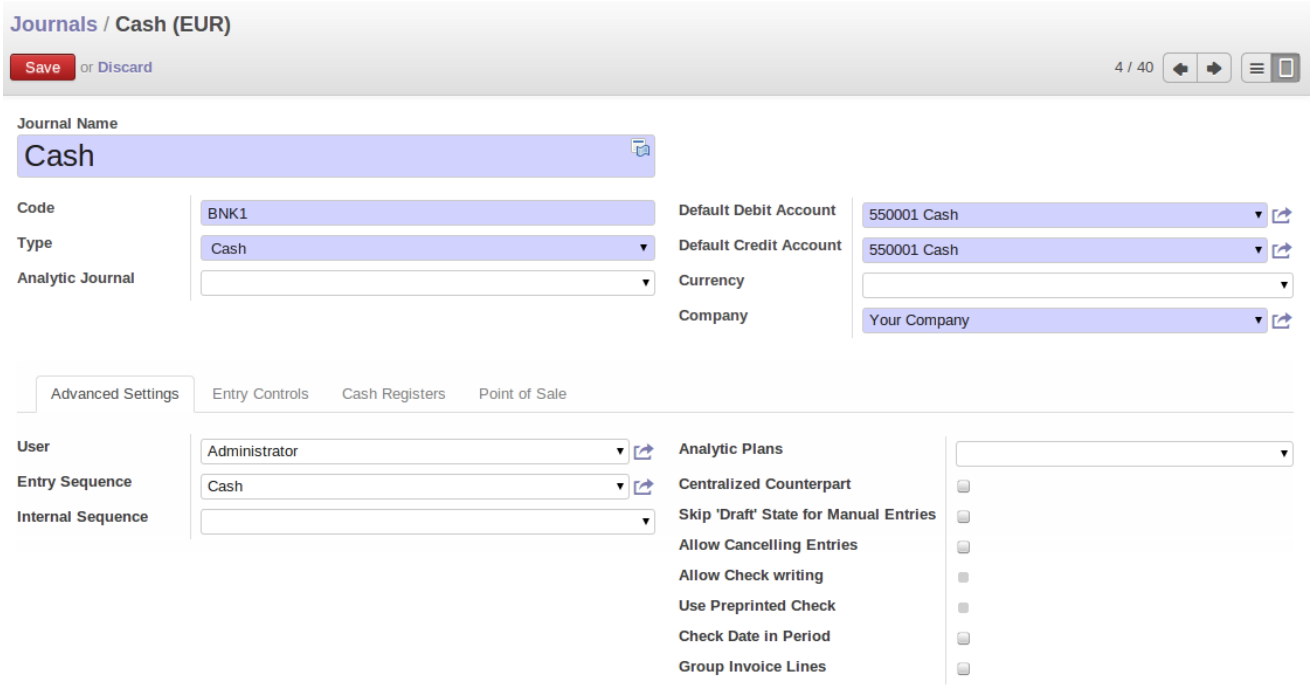


Profit and Loss Wizard

For printing report , you can click on Print button.

The Accounting Journals

A journal allows you to list entries in chronological order (by default according to date). Each entry posted in OpenERP is recorded in such a journal. To configure the different accounting journals, go to the menu ***Accounting*** ▸ ***Configuration*** ▸ ***Journals*** ▸ ***Journals***.



Defining a Journal

OpenERP provides three main reports regarding the journals:

- To print a Journal, use the menu ***Accounting*** ▸ ***Reporting*** ▸ ***Legal Reports*** ▸ ***Journals*** ▸ ***Journals*** This report will show all entries per journal, e.g. sales entries, purchase entries, etc. Each transaction is mentioned, with date, reference, document number, account, partner, description and debit and credit amount. The **Journal** report can be printed per period and per journal.

Journal

Chart of Accounts	Fiscal Year	Journal	Period	Entries Sorted By	Target Moves
Your Company	Fiscal Year X 2013	Bank	X 04/2013	Date	All Posted Entries

Move	Date	Account	Partner	Label	Debit	Credit
BNK2/2013/00001	04/08/2013	550002		test1	100.00 €	0.00 €
BNK2/2013/00001	04/08/2013	100000		test1	0.00 €	100.00 €
BNK2/2013/00002	04/08/2013	550002		test2	100.00 €	0.00 €
BNK2/2013/00002	04/08/2013	100100		test2	0.00 €	100.00 €
BNK2/2013/00003	04/08/2013	101000		test3	0.00 €	100.00 €
BNK2/2013/00003	04/08/2013	550002		test3	100.00 €	0.00 €
BNK2/2013/00004	04/08/2013	550002	ASUSTeK	test10	100.00 €	0.00 €
BNK2/2013/00004	04/08/2013	175111	ASUSTeK	test10	0.00 €	100.00 €
				Total:	**400.00 €**	**400.00 €**

Printing a Journal

- To print a General Journal, use the menu ***Accounting*** ▸ ***Reporting*** ▸ ***Legal Reports*** ▸ ***Journals*** ▸ ***General Journals***. A General Journal will print a page per period for any journal entries posted in that period, and totalised per journal. The report will show the period, the journal, debit, credit and balance, but no details of the related entries.

General Journal

Chart of Accounts	Fiscal Year	Journals	Filter By	Target Moves
Your Company	Fiscal Year X 2013	TSAJ, TSCNJ, TEXJ, TECNJ, TMIS, TOEJ, TUBK, ECNJ-, BNK-O, CHK-O, CSH-O, STJ, SAJ, EXJ, SCNJ, ECNJ, MISC, OPEJ, BNK1, BNK2, SAJ-O, SCNJ-, EXJ-O, ECNJ-, BNK-O, CHK-O, CSH-O, SAJ-O, SCNJ-, EXJ-O, ECNJ-, BNK-O, CHK-O, CSH-O, SAJ-O, SCNJ-, EXJ-O, TBNK, TCHK, TCSH	No Filters	All Posted Entries

Code	Journal Name	Debit	Credit	Balance
Total:		**451.81**	**526.59**	**-74.78 €**
X 04/2013 :		**400.00**	**474.78**	**74.78 €**
BNK2	Bank	400.00	400.00	0.00 €
TCSH	Cash Journal - (test)	0.00	22.97	22.97 €
TBNK	Bank Journal - (test)	0.00	51.81	51.81 €

Printing a General Journal

- To print a Centralizing Journal, use the menu ***Accounting*** ▸ ***Reporting*** ▸ ***Legal Reports*** ▸ ***Journals*** ▸ ***Centralizing Journal***. A centralizing journal gives a summary per account for each journal and period of debit, credit and balance.

Centralized Journal

Chart of Accounts	Fiscal Year	Journal	Filter By	Target Moves
Your Company	Fiscal Year X 2013	Bank	No Filters	All Posted Entries

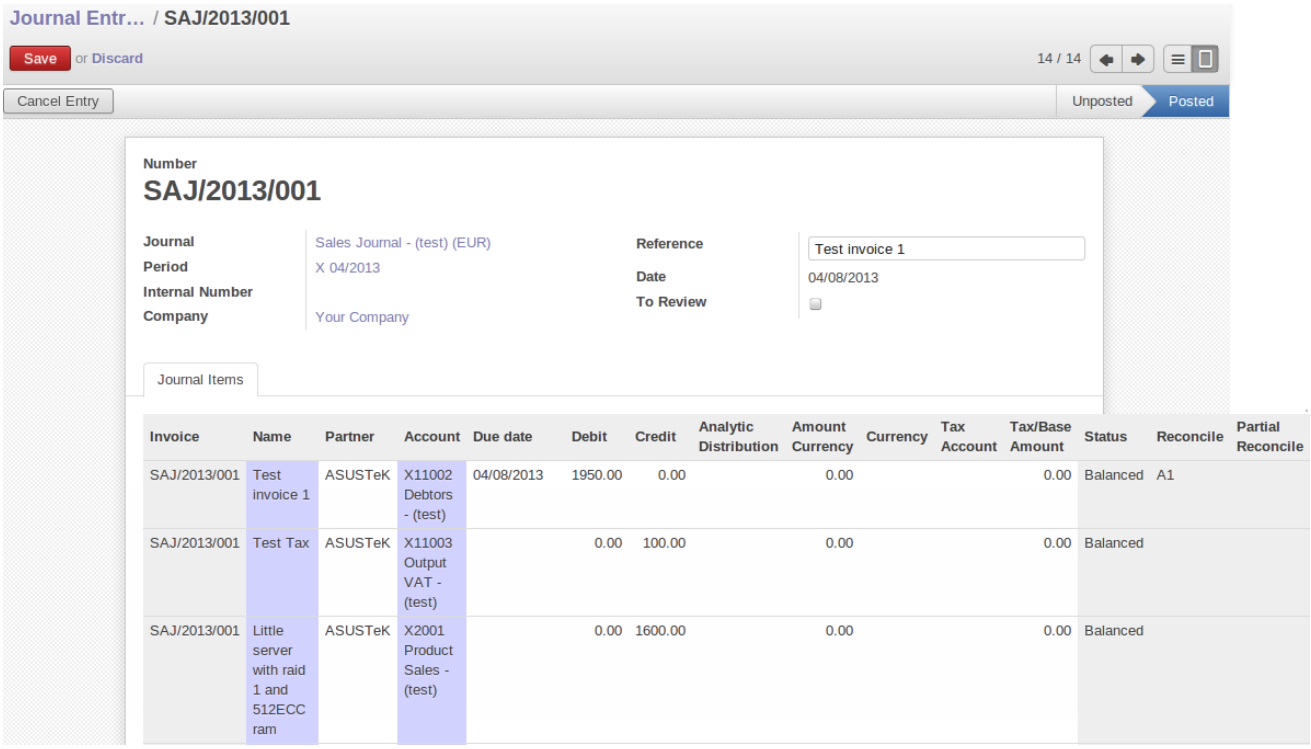
A/C No.	Account Name	Debit	Credit	Balance
Total:		**400.00**	**400.00**	**0.00 €**
175111	Fournisseurs C.E.E.	0.00	100.00	100.00 €
100100	Capital amorti	0.00	100.00	100.00 €
100000	Capital non amorti	0.00	100.00	100.00 €
550002	Bank	400.00	0.00	-400.00 €
101000	Capital non appelé	0.00	100.00	100.00 €

Printing a Centralizing Journal

Tax Declaration

Information required for a tax declaration is automatically generated by OpenERP from invoices. In the section on invoicing, you will have seen that you can get details of tax information from the area at the bottom left of an invoice.

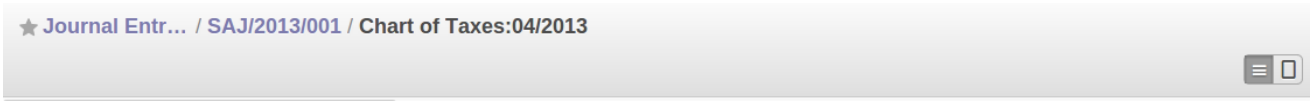
You can also get the tax information when you open a journal entry by looking at the columns to the right of each line. In the following figure , you can see the example of Journal Entry with VAT, from menu ***Accounting*** ▸ ***Journal Entries*** ▸ ***Journal Entries***



Invoice	Name	Partner	Account	Due date	Debit	Credit	Analytic Distribution	Amount Currency	Currency	Tax Account	Tax/Base Amount	Status	Reconcile	Partial Reconcile
SAJ/2013/001	Test invoice 1	ASUSTeK	X11002 Debtors - (test)	04/08/2013	1950.00	0.00		0.00			0.00	Balanced	A1	
SAJ/2013/001	Test Tax	ASUSTeK	X11003 Output VAT - (test)		0.00	100.00		0.00			0.00	Balanced		
SAJ/2013/001	Little server with raid 1 and 512ECC ram	ASUSTeK	X2001 Product Sales - (test)		0.00	1600.00		0.00			0.00	Balanced		

Journal Entry with VAT Information

OpenERP keeps a tax chart that you can reach from the menu***Accounting*** ▸ ***Charts*** ▸ ***Chart of Taxes*** The wizard will propose to display entries for the current period only, but you can also leave the period empty to see a complete financial year. The structure of the chart is for calculating the VAT declaration, but all the other taxes can be calculated as well (such as the French DEEE).



Tax Case Name	Case Code	Period Sum	Year Sum	Company
Opérations à la sortie	II	0.00	0.00	Your Company
Opérations soumises à un régime particulier	II. A	0.00	0.00	Your Company
Opérations soumises à un régime particulier	00	0.00	0.00	Your Company
TVA due par le déclarant	II. B	0.00	0.00	Your Company
Opérations avec TVA à 6%	01	0.00	0.00	Your Company
Opérations avec TVA à 12%	02	0.00	0.00	Your Company
Opérations avec TVA à 21%	03	0.00	0.00	Your Company
TVA étrangère due par le cocontractant	II. C	0.00	0.00	Your Company
Services intra-communautaires	44	0.00	0.00	Your Company
Opérations avec TVA due par le cocontractant	II. D	0.00	0.00	Your Company
Opérations avec TVA due par le cocontractant	45	0.00	0.00	Your Company
Livraisons intra-communautaire exemptées	II. E	0.00	0.00	Your Company
Livraisons intra-communautaire exemptées	46	0.00	0.00	Your Company
Autres opérations exemptées	II. F	0.00	0.00	Your Company
Autres opérations exemptées	47	0.00	0.00	Your Company
Notes de crédit délivrées et corrections négatives	II. G	0.00	0.00	Your Company
Notes de crédit aux opérations grilles [44] et [46]	48	0.00	0.00	Your Company
Notes de crédit aux opérations grille [44]	48s44	0.00	0.00	Your Company
Notes de crédit aux opérations grille [46L]	48s46L	0.00	0.00	Your Company
Notes de crédit aux opérations grille [46T]	48s46T	0.00	0.00	Your Company
Notes de crédit aux opérations du point II	49	0.00	0.00	Your Company

Example of a Belgian VAT Structure

The tax chart represents the amount of each area of the VAT declaration for your country. It is presented in a hierarchical structure which lets you see the detail only of what interests you and hides the less interesting subtotals. This structure can be altered as you wish to fit your needs.

You can create several tax charts if your company is subject to different types of tax or tax-like accounts, such as:

- authors' rights,

- ecotaxes, such as the French DEEE for recycling electrical equipment.

By creating several charts of taxes, you can print different declarations from the menu ***Accounting*** ▸ ***Reporting*** ▸ ***Generic Reporting*** ▸ ***Taxes*** ▸ ***Taxes Report***. Simply select the chart of taxes you want to print in the wizard.

Each accounting entry can then be linked to one of the tax accounts. This association is done automatically from the taxes which had previously been configured in the invoice lines.

Tipp - Tax Declaration

Some accounting software manages the tax declaration in a dedicated general account. The declaration is then limited to the balance in the specified period. In OpenERP, you can create an independent chart of taxes, which has several advantages:

- it is possible to allocate only a part of the tax transaction,
- it is not necessary to manage several general accounts depending on the type of sales and the type of tax,
- you can restructure your chart of taxes as required.

At any time, you can check your chart of taxes for a given period using the report.

Data is updated in real time. This is very useful because it enables you to preview at any time the tax that you owe at the start and end of the month or quarter.

Furthermore, for your tax declaration, you can click one of the tax accounts to investigate the detailed entries that make up the full amount. This helps you search for errors, such as when you have entered an invoice at full tax rate when it should have been zero-rated for an intracommunity trade or for charity.

Management Indicators

With OpenERP you can also create your own financial reports. This feature is now included in standard OpenERP. Go to ***Accounting*** ▸ ***Configuration*** ▸ ***Financial Reports*** ▸ ***Account Reports*** and click ***Create***.

Suppose we would like to create our company Balance Sheet. The first report to be created, should be a View report which will contain the final details. Keep the default Sequence 0.

Now create the **Assets** report, and set **Balance Sheet** as the parent for this report. Set the Sequence to 1.

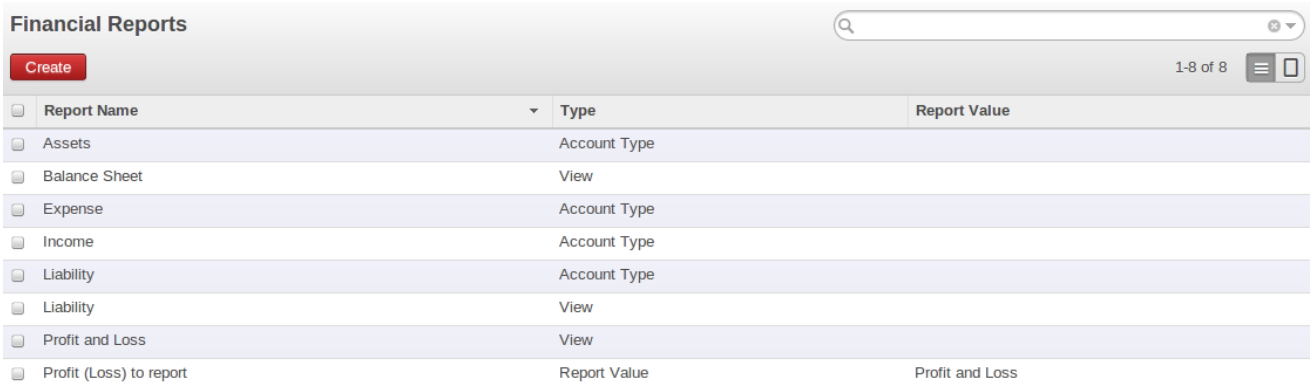
Now create the **Liabilities** report, and set **Balance Sheet** as the parent for this report too. Set the Sequence to 2.

Both these reports are of the **View** type.

Apart from the **View** type, you can select three other types: **Accounts**, **Account Type** and **Report Value**.

- ***Accounts***: here you can select view accounts or individual accounts that should be included in the report. View accounts offer the advantage that when new accounts are added as a child of such view account, they will automatically be printed on the report. When selecting individual accounts, you need to specifically add each newly created account to get the correct report.
- ***Account Type***: selecting an account type means that all accounts related to the selected account type(s) will be printed on the report.

- ***Report Value***: thanks to this value you can include the balance of existing reports in another report. Example: create a profit & loss report (view) including costs (account class 6) and income (account class 7). In the Balance Sheet, define a report Profit&Loss Balance, with Balance Sheet as the Parent. Set the type to Report Value and link it to the P&L view report you defined. This way, the balance sheet will print the Profit&Loss result.



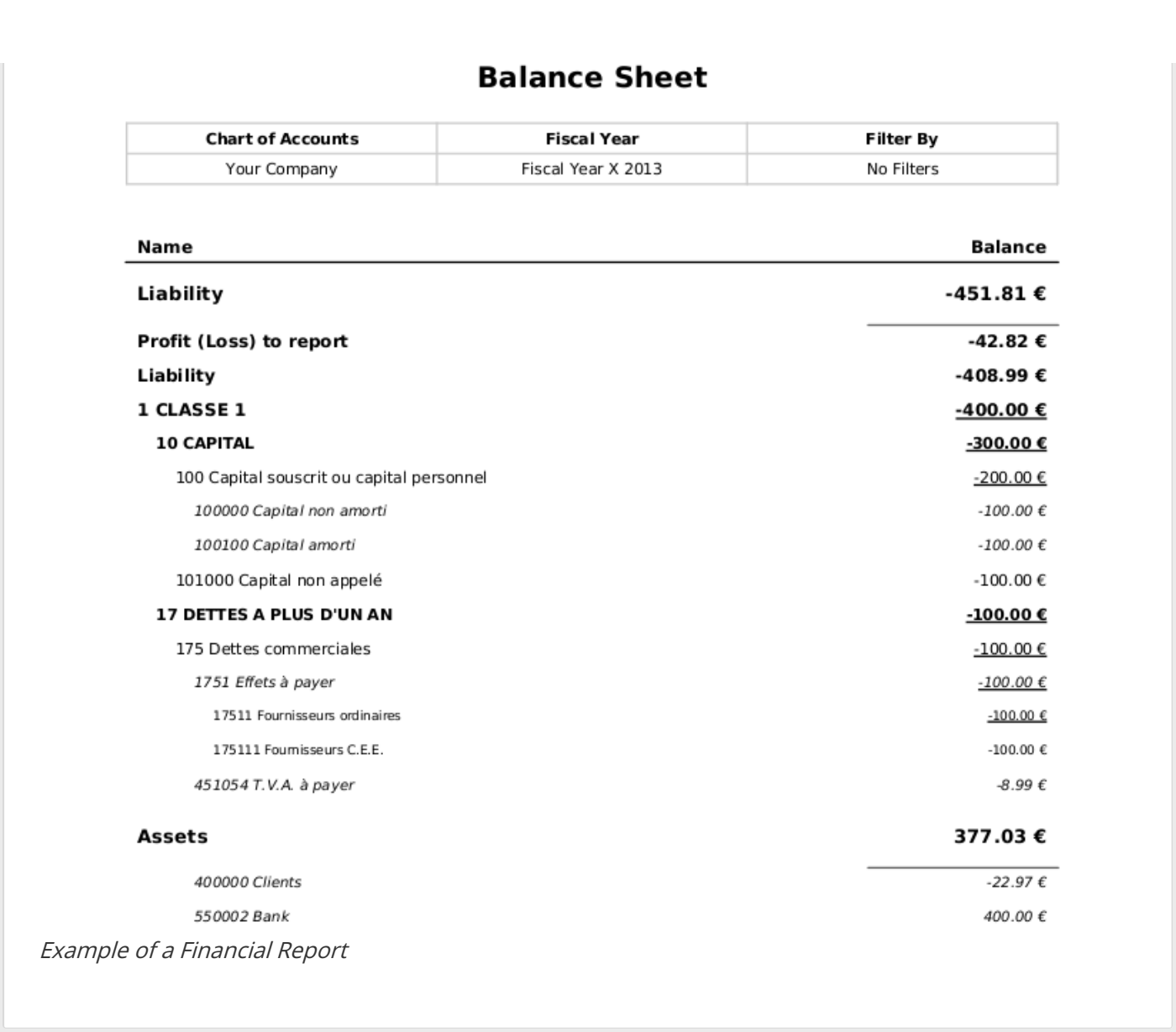
Report Name	Type	Report Value
Assets	Account Type	
Balance Sheet	View	
Expense	Account Type	
Income	Account Type	
Liability	Account Type	
Liability	View	
Profit and Loss	View	
Profit (Loss) to report	Report Value	Profit and Loss

Financial Reports

Create a report to print the Asset accounts (class 2 from the Belgian ledger) on the Assets side of the report. As a Parent, define the Assets report; sequence 3, type Accounts. If you want to use all accounts of class 2, just select the class (view account). You can also select various asset accounts. You could also have set this report to Account Type, with type Immo.

If you just want the sum of the selected accounts to appear, you leave the settings as they are. Should you wish to print the account details as well, you can select the **Display details** checkbox. The report will then also print the selected account numbers.

To print the results, go to ***Accounting*** ▸ ***Reporting*** ▸ ***Legal Reports*** ▸ ***Accounting Reports*** ▸ ***Financial Report***. Select the report you want to print (only reports of the View type will be displayed in the list). You can also print a report for specific periods or dates. If you select the **Enable Comparison** checkbox, an extra **Comparison** tab will appear in which you can, for instance, select periods from a previous financial year. You have to give the comparison column a name through the **Column Label** field.



Balance Sheet

Chart of Accounts	Fiscal Year	Filter By
Your Company	Fiscal Year X 2013	No Filters

Name	Balance
Liability	**-451.81 €**
Profit (Loss) to report	**-42.82 €**
Liability	**-408.99 €**
1 CLASSE 1	**-400.00 €**
10 CAPITAL	**-300.00 €**
100 Capital souscrit ou capital personnel	-200.00 €
100000 Capital non amorti	*-100.00 €*
100100 Capital amorti	*-100.00 €*
101000 Capital non appelé	-100.00 €
17 DETTES A PLUS D'UN AN	**-100.00 €**
175 Dettes commerciales	-100.00 €
1751 Effets à payer	*-100.00 €*
17511 Fournisseurs ordinaires	-100.00 €
175111 Fournisseurs C.E.E.	-100.00 €
451054 T.V.A. à payer	*-8.99 €*
Assets	**377.03 €**
400000 Clients	*-22.97 €*
550002 Bank	*400.00 €*

Example of a Financial Report

About

This is a demonstration server for Booktype. This server is reset on a regular basis, and any books created here will be deleted at that time. You can read the Booktype user manual at http://sourcefabric.booktype.pro/booktype-20-for-authors-and-publishers/.

How to use

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