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# Foreword

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

## Open Source Software: Making Business Applications accessible

Some may look at the Business Application market as a mature market dominated by a few large key players, with no new business opportunities.

This would be ignoring the market reality. So many customers are frustrated by their experience with existing vendors; so many companies around the world need to have access to business applications, but cannot afford them.

OpenERP believes that business applications should not be a luxury. That any company, anywhere in the world, should be able to afford the best tools to professionally expand business. That is one of the reasons why OpenERP needs to break the existing rules of the ERPs and the Business Applications market.

Customers should use their budget smartly and invest in customizing the application to their specific needs, rather than paying expensive license fees. OpenERP is committed to the Open Source Business Model precisely because Open Source allows for this. Open Source is a disruptive model, as it creates more value for the customers.

For decades, customers have developed applications which remained specific to their own needs, and in the end proved extremely expensive to maintain. Open Source means that customers can benefit from past developments of other companies. Also by contributing to the evolution of the software, the users will enjoy the guarantee that their development will be included in future versions of the software. One of the major advantages is that such a *Community* brings a wealth of new functionality.

Open Source also allows us to engage with our customers differently. Since there is no licensing cost, any potential customer can download, test and use the software. OpenERP has no need for an expensive sales force to promote the product. OpenERP just needs to make the best product and make it available to customers.

Open Source allows for many barriers in this industry to be broken. The software is available to many companies who could otherwise not afford expensive business applications license fees. The OpenERP solution allows customers to use their money smartly and tailor the software to their individual needs. OpenERP leverages from its customer base to enrich the software and finally eradicate any lock-in to allow customers to use and even drop the software freely.

# The OpenERP Solution

OpenERP can build a new breed of business applications, more modular, more customer-friendly, fully web-based, which others cannot due to the heritage of their legacy systems.

OpenERP is a comprehensive suite of business applications including Sales, CRM, Project management, Warehouse management, Manufacturing, Financial management, and Human Resources, just to name a few. More than 1000 OpenERP modules are available from the OpenERP Apps market place (http://apps.openerp.com/).

The key to continued sales success is effective Customer Relationship Management, and that is precisely the main topic of the book you are reading. OpenERP's CRM and Sales features are flexible and highly developed to assist you in managing all aspects of partner relationships.

OpenERP can share information with the most common email clients, calendars and mobile phones, allowing your staff to build on previous productivity and experience by continuing to use familiar email and office systems, now connected to OpenERP. In a few clicks, your sales person can transfer necessary information to the OpenERP software. You can link important emails to the CRM directly from your current mailbox and even reply from your own mailbox and have the answer stored in your CRM automatically.

# Structure of this book

Part One, *First Steps with OpenERP* (page **??**), starts with the basic steps to install OpenERP. You will also be introduced to the main concepts, such as Sales Teams & Stages, and you will be guided through a complete workflow, from Quotation to Sales Order. Part One also presents the OpenERP Online offer (SaaS solution), and the configuration wizards in the *ch-start* chapter. To discover OpenERP's features, you can jump directly to Part Two.

Part Two, *part2-beg* explains you how to manage your customer relationships with OpenERP. You will learn more about how to manage Leads and Opportunities, to integrate existing communication tools with OpenERP, to efficiently manage a sales and channel department, and to monitor performance.

Part Three, *part3-crm-market*, is devoted to Direct Marketing. In a step-by-step tutorial, we will guide you through the process of setting up a marketing campaign in OpenERP.

Part Four, *part4-crm-sales*, guides you from quotation to sales order, explaining several advanced sales features.

Finally part Five, *part5-crm-install*, explains the detailed installation procedures for OpenERP. This chapter also explains how to install the Thunderbird & Outlook plugins, to get the most out of your existing email programs.

# 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 OpenERP S.A., the editor of OpenERP. In a few years time, 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 became 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.

## 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 the trainings & documentation. This was absolutely an opportunity to be qualified, and now Els is the OpenERP Training Program Manager and in this job responsible for the worldwide training and certification program of OpenERP.

Being an author of several Software Manuals, she finds it exciting 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.

# Acknowledgements

*From Els Van Vossel*

Thank you Fabien, for offering me the opportunity to work with OpenERP. I thank all OpenERP team members for their support and understanding. My special thanks to my family who encouraged me to write this book.

*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.

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 with other enterprise-scale systems, and offers unmatched functionality.

# Part I

# Installation and Initial Setup

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 to http://www.openerp.com/online/;
- 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*.

**Some Interesting Websites from OpenERP**

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

**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

# 1

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

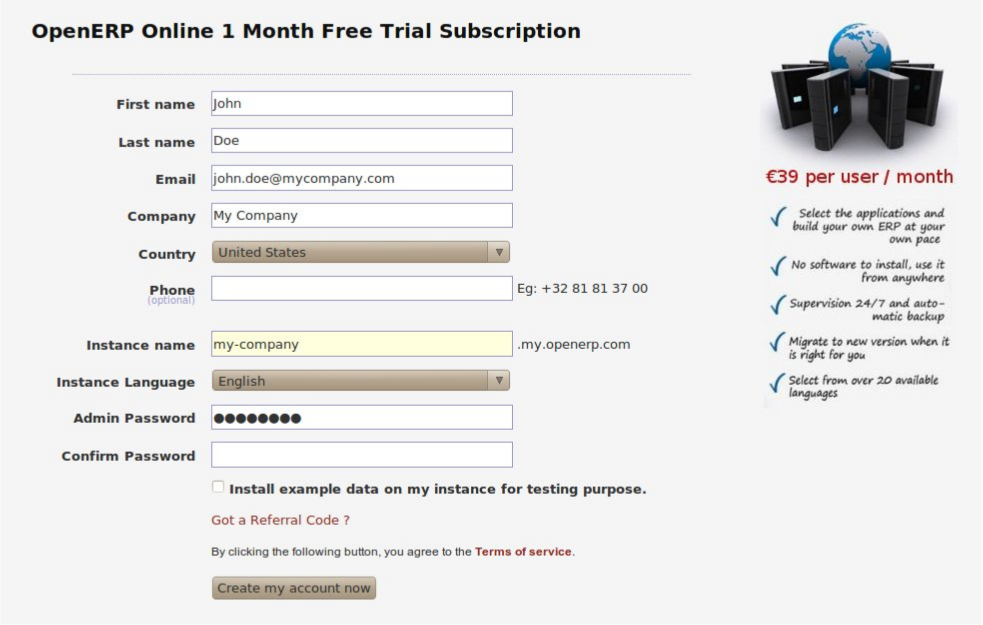
The Online service can be particularly useful to small companies, that just want to get going quickly at low cost. You have immediate access to OpenERP's Integrated Management System built on the type of enterprise architecture used in many organizations.

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.



**OpenERP Online 1 Month Free Trial Subscription**

| | | |
|---|---|---|
| **First name** | John | |
| **Last name** | Doe | |
| **Email** | john.doe@mycompany.com | |
| **Company** | My Company | |
| **Country** | United States ▾ | |
| **Phone** (optional) | | Eg: +32 81 81 37 00 |
| **Instance name** | my-company | .my.openerp.com |
| **Instance Language** | English ▾ | |
| **Admin Password** | ●●●●●●●● | |
| **Confirm Password** | | |

☐ **Install example data on my instance for testing purpose.**

Got a Referral Code ?

By clicking the following button, you agree to the **Terms of service**.

Create my account now
€39 per user / month
✓ Select the applications and build your own ERP at your own pace
✓ No software to install, use it from anywhere
✓ Supervision 24/7 and automatic backup
✓ Migrate to new version when it is right for you
✓ Select from over 20 available languages

Figure 1.1: *Subscribe and Start with OpenERP Online*

If you want to start working with the online platform, you can navigate to http://www.openerp.com/online. 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.

**Free Trial**

For a month's free trial, check out OpenERP's http://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.

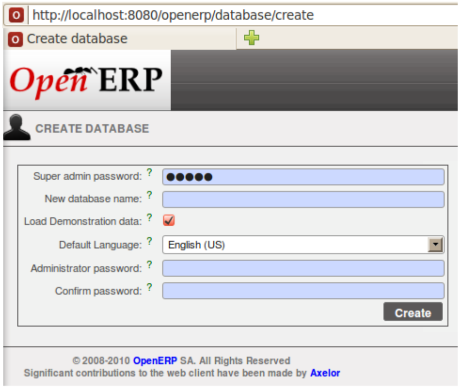
# Getting Started with OpenERP Online

# 2

If you want to focus on your customers, you need tools: to capture all the knowledge you have available; to help you analyze what you know; to make it easy to use all of that knowledge and analysis. OpenERP invites you to discover the CRM & Sales Management Business Application!

In this chapter, you can start exploring OpenERP!

Use a web browser of your choice to connect to OpenERP Web.



http://localhost:8080/openerp/database/create

Super admin password: ●●●●●

New database name:

Load Demonstration data: ☑

Default Language: English (US)

Administrator password:

Confirm password:

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Significant contributions to the web client have been made by Axelor

Figure 2.1: *Web Client at Startup*

OpenERP suggests that you configure your database using a series of questions. In the software, these series of questions are managed through so-called `Configuration Wizards`.

Click the `Start Configuration` button to continue.

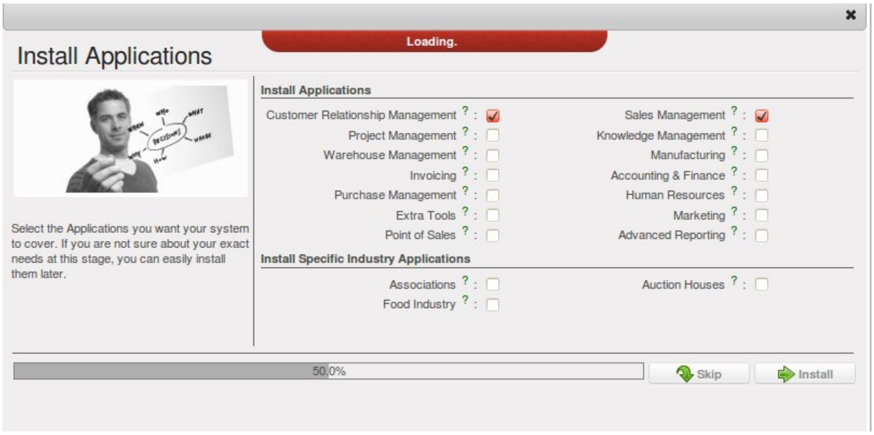
The next configuration wizard will help you to decide what your user interface will look like, whether the screens will only show the most important fields - `Simplified` - or whether you also want to see the fields for the more advanced users, the `Extended` view. Select `Extended` and click *Next* to continue.

**User Preferences**

You can easily switch from Simplified to Extended view by changing your *User Preferences*.

In the next wizard, you can fill your company data, select your company's base currency and add your company logo which can be printed on reports. Click *Next* to continue.

Select the `Customer Relationship Management` and `Sales Management` business applications for installation and click *Install*. Now OpenERP will start to install CRM & Sales, allowing you to do a complete sales cycle, from lead / opportunity to quotation and sales order. You will have to wait for the next configuration wizard to be displayed (*Loading* will appear).



Install Applications

Select the Applications you want your system to cover. If you are not sure about your exact needs at this stage, you can easily install them later.

**Install Applications**

Customer Relationship Management ? : ☑
Project Management ? : ☐
Warehouse Management ? : ☐
Invoicing ? : ☐
Purchase Management ? : ☐
Extra Tools ? : ☐
Point of Sales ? : ☐
Sales Management ? : ☑
Knowledge Management ? : ☐
Manufacturing ? : ☐
Accounting & Finance ? : ☐
Human Resources ? : ☐
Marketing ? : ☐
Advanced Reporting ? : ☐

**Install Specific Industry Applications**

Associations ? : ☐
Food Industry ? : ☐
Auction Houses ? : ☐

Figure 2.2: *Selecting the CRM & Sales Functionality*

OpenERP's modularity enables you to install a single Business Application (such as CRM) if that is all you need. Of course, you can choose to also install Sales Management, to handle quotations, sales orders and sales invoices as well. For now, please install `Customer Relationship Management` and `Sales Management`, as these two Business Applications will be discussed in this book.

**Reconfigure**

Keep in mind that you can change or reconfigure the system any time, for instance through the *Reconfigure* option in the main bar.

When you choose a business application for installation, OpenERP will automatically propose to add or configure related (smaller) applications to enrich your system. When you install CRM, OpenERP will also ask you whether you want to install Fetchmail, or Sales FAQ, for instance.

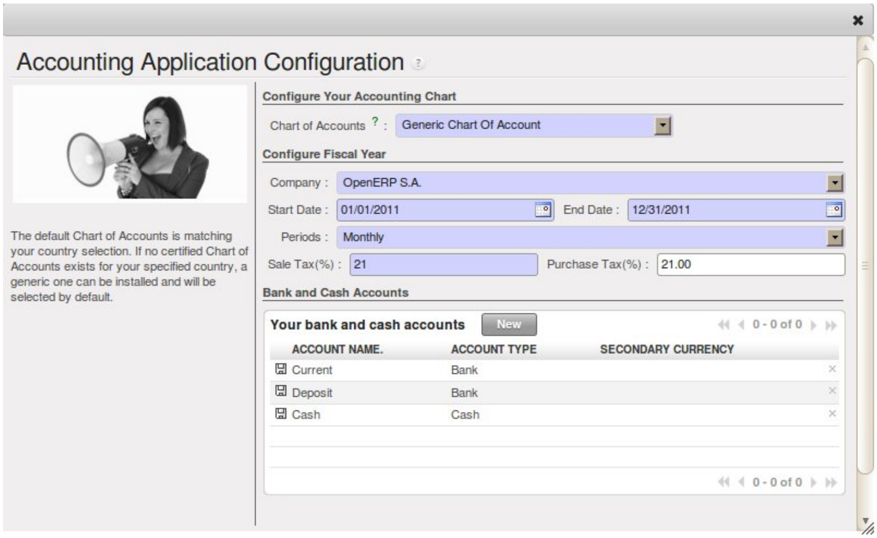
The figure *Selecting Accounting Configuration* (page 9) shows the Accounting Application Configuration screen that appears when you select `Sales Management` to be installed.

Indeed, accounting is required to create sales invoices. Select the *Generic Chart of Account* and fill in the Sale Tax (%) applicable in your country. Click *Configure* to continue the configuration.

**Accounting**

Please note that you can perfectly well use OpenERP's CRM without doing your accounting in OpenERP. When you only install CRM, there is no need to configure accounting.

OpenERP CRM offers lots of features. You can easily manage your address book (prospects, customers,



Accounting Application Configuration

The default Chart of Accounts is matching your country selection. If no certified Chart of Accounts exists for your specified country, a generic one can be installed and will be selected by default.

**Configure Your Accounting Chart**

Chart of Accounts ? : Generic Chart Of Account

**Configure Fiscal Year**

Company : OpenERP S.A.
Start Date : 01/01/2011
End Date : 12/31/2011
Periods : Monthly
Sale Tax(%) : 21
Purchase Tax(%) : 21.00

**Bank and Cash Accounts**

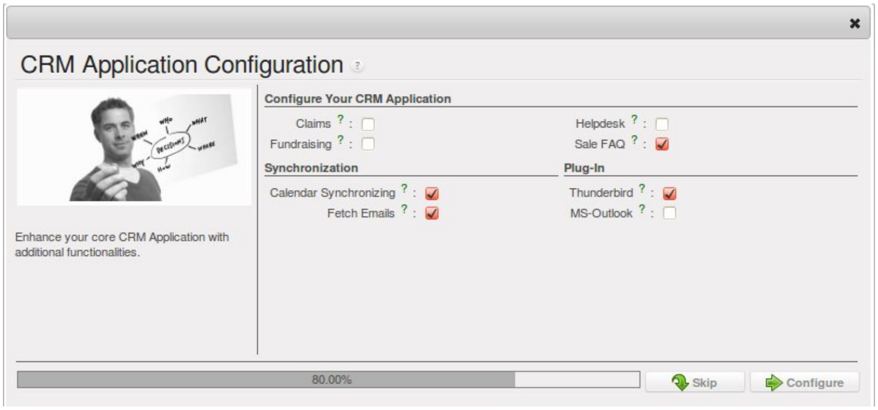
Your bank and cash accounts

| ACCOUNT NAME. | ACCOUNT TYPE | SECONDARY CURRENCY |
|---|---|---|
| Current | Bank | |
| Deposit | Bank | |
| Cash | Cash | |

Figure 2.3: *Selecting Accounting Configuration*

...), keep track of leads and/or opportunities, manage meetings & phone calls, share (sales) knowledge and much more.

The figure *Selecting CRM Configuration* (page 9) shows the CRM Application Configuration screen that appears when you select `Customer Relationship Management` to be installed.



CRM Application Configuration

Enhance your core CRM Application with additional functionalities.

**Configure Your CRM Application**

Claims ? : ☐
Fundraising ? : ☐
Helpdesk ? : ☐
Sale FAQ ? : ☑

**Synchronization**

Calendar Synchronizing ? : ☑
Fetch Emails ? : ☑

**Plug-In**

Thunderbird ? : ☑
MS-Outlook ? : ☐

80.00%

Figure 2.4: *Selecting CRM Configuration*

To stay in line with what will be described later in this book, please install the following options:

- `Opportunity to Quotation` will be checked by default, allowing you to create quotations from an opportunity,
- `Sale FAQ` to install a company wiki to share your sales knowledge,

- `Calendar Synchronizing` to link your OpenERP calendar to your mobile device, for instance,
- `Fetch Emails` to manage incoming and outgoing emails in OpenERP directly,
- `Thunderbird` or `Outlook` according to the email client you are using, to link your current mailbox to OpenERP and to create new leads or partners in OpenERP, directly from your mailbox.

If you have selected all of the above options, the following Configuration Wizards will appear:

- Configure your *Sales* application: click `Configure` to accept the default settings (no options checked).
- Configure your *Knowledge* application: click `Configure` to accept the default settings.
- *Thunderbird / Outlook* Plug-in Configuration: for now, you only have to click the `Save as` button to save the plug-in to your disk (or desktop). Then you can click `Configure` to continue the installation.
- Configure your *Accounting* application: click `Configure` to accept the default settings.
- Configure your *Sales* application: click `Configure` to accept the default settings.
- *Knowledge* application configuration: click `Next` to accept the default settings for the server address.

**Plug-ins**

For the configuration of the plug-in, please refer to the settings in chapter *thunder* or *outl*.

OpenERP's menu will be displayed, because your system is now ready for actual configuration. To get started, you click the Sales button in OpenERP's main screen. In the next chapter *ch-team* you will start working in the CRM application by telling OpenERP how your company's sales teams are organized.

As your business is growing and evolving all the time, your requirements as to the use of OpenERP are likely to change. To sustain your growth, you can easily extend your CRM with other OpenERP business applications, such as logistics or HR, to name some. OpenERP offers this flexibility; you can start with one business application, such as Customer Relationship Management, and gradually complete OpenERP to suit your ever changing needs!

# Part II

# Complete Example: from Lead to Sales Order

In this chapter, we will show you a complete sales flow, from lead to opportunity to quotation to sales order in a step-by-step scenario.

First you will get an explanation about the use case (what Thomas or one of his colleagues is supposed to do). Then the *Notes* will learn you how Thomas (or a colleague of his) enters the information in OpenERP CRM. For the simplicity of the use case, we will do all of the steps under the Admin user.

**Simplified or Extended View**

In OpenERP your user interface will look slightly different according to the User Preferences. In `Simplified` view, the screens will only show the most important fields / tab pages. To see also the fields for the more advanced users, you should switch to the `Extended` view. You can easily switch from *Simplified* to *Extended* view by changing your *User Preferences* through the ‘Edit Preferences´ button. For this use case, please switch to ´Extended´ view.

1. Create a new campaign

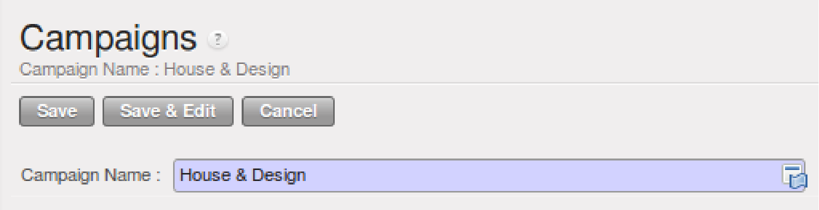
Your company is exhibiting at the “House & Design” Fair in Paris and Thomas, a salesman of your company, meets lots of prospects during this event. Because Luc, the Sales Manager, would like to know the return on investment from hiring a stand at this fair, he asks Thomas, who will be hosting this event, to make a “House & Design” campaign.

**Campaign**

To create a new campaign, Thomas goes to *Sales* → *Configuration* → *Sales* → *Campaigns* and clicks the *New* button. In the *Campaign Name* field, he types *House & Design*.

2. Create and qualify a new lead

Thomas has to enter all contacts he met at the House & Design Fair as a new lead (contacts, prospects), assigning each individual lead to the “House & Design” campaign. He will start by adding a lead for Mr. John Doe of the *The Interior Design Company* who is interested in redecorating his office.


Campaigns
Save
Save & Edit
Cancel

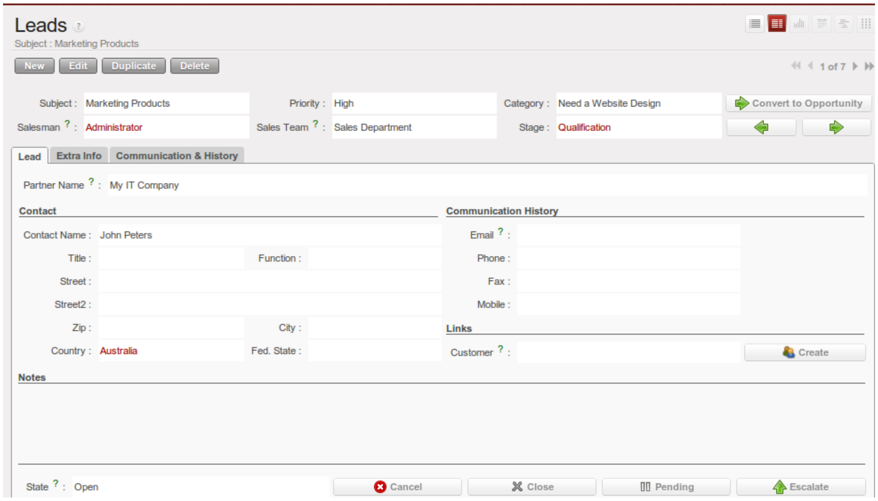
Campaign Name : House & Design

Campaign Name : House & Design

Figure 2.5: *Campaign*

**Leads**

To create a new lead, Thomas goes to *Sales* → *Leads* and clicks the *New* button. The subject of a lead is in blue, because it is a mandatory field, so Thomas enters *Potential interior design customer* in that field. He uses the *Notes* field to add more information about the lead. When saving the lead, it will be in Draft state. Thomas opens it for further follow-up. In the chapter *part2-crm-leads* you will find more details about lead creation.


Leads
New
Edit
Duplicate
Delete
1 of 7
Convert to Opportunity
Lead
Extra Info
Communication & History
Contact
Communication History
Links
Create
Notes
Cancel
Close
Pending
Escalate

Subject : Marketing Products

Subject : Marketing Products

Priority : High

Category : Need a Website Design

Salesman ? : Administrator

Sales Team ? : Sales Department

Stage : Qualification

Partner Name ? : My IT Company

Contact Name : John Peters

Title :

Function :

Street :

Street2 :

Zip :

City :

Country : Australia

Fed. State :

Email ? :

Phone :

Fax :

Mobile :

Customer ? :

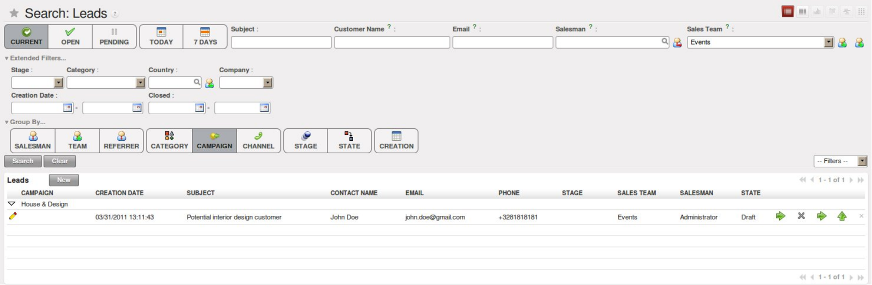
State ? : Open

Figure 2.6: *Example of a Lead*

To contact his leads after the Fair and check if any of them can be qualified as a business opportunity, Thomas would like to group his leads by the “House & Design” Campaign, to have an overview of all the leads generated through this campaign.

**Group by**

To group his leads by campaign, Thomas goes to *Sales* → *Leads* and clicks the *Group by* list to show the buttons he can use. He clicks the *Campaign* button and notices that no lead is visible, but only the various campaigns. Each campaign has an arrow in front; he clicks the arrow to display all the leads for that campaign.


Search: Leads
CURRENT
OPEN
PENDING
TODAY
7 DAYS
Subject :
Customer Name ? :
Email ? :
Salesman ? :
Extended Filters...
Stage :
Category :
Country :
Company :
Creation Date :
Closed :
Group By...
SALESMAN
TEAM
REFERRER
CATEGORY
CAMPAIGN
CHANNEL
STAGE
STATE
CREATION
Search
Clear
-- Filters --
Leads
New
1 - 1 of 1

Sales Team ? : Events

| CAMPAIGN | CREATION DATE | SUBJECT | CONTACT NAME | EMAIL | PHONE | STAGE | SALES TEAM | SALESMAN | STATE |
|---|---|---|---|---|---|---|---|---|---|
| House & Design | | | | | | | | | |
| | 03/31/2011 13:11:43 | Potential interior design customer | John Doe | john.doe@gmail.com | +3281818181 | | Events | Administrator | Draft |

Figure 2.7: *Leads grouped by Campaign*

3. Convert the lead into an opportunity and create a new customer

Because the lead for John Doe from *The Interior Design Company* looks promising, Thomas decides to convert it into an opportunity and at the same time add a new Customer to the company's address book.

On the business opportunity, the salesman should provide more information, such as the estimated income. Thomas indicates that the expected revenue would be 5,000.00€, and that the success rate of the opportunity at this stage is 20%.

Thomas sets Luc, the sales manager, as the person responsible to follow up the opportunity. He also sets the date for the next action and describes that he has to call the potential customer to plan a meeting with Luc, the sales manager.

**Convert to Opportunity**

To convert the lead into an opportunity, Thomas goes to *Sales* → *Sales* → *Leads* and opens the lead concerned (there are various possibilities to quickly find the lead he needs). Thomas opens the lead and clicks the *Convert to Opportunity* button (he can also do this from the list of leads by clicking the Convert to Opportunity arrow of the lead concerned). OpenERP asks Thomas whether he wants to create a new partner. He confirms by clicking *Continue* to add the new potential customer to your company's address book. Then he clicks *Next* to convert the promising lead into an opportunity. In the *Expected Revenue* field, Thomas types 5,000.00€, and he enters a success rate of 20%. Thomas clicks the *Create Opportunity* button. As a *Next Action Date*, he sets tomorrow's date and in the *Next Action* field he types *Phone customer to plan meeting*.

**Filters**

The *Advanced Search View* provides a very user-friendly filtering mechanism to easily look up desired records from the list.

Usually, a filter view 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.

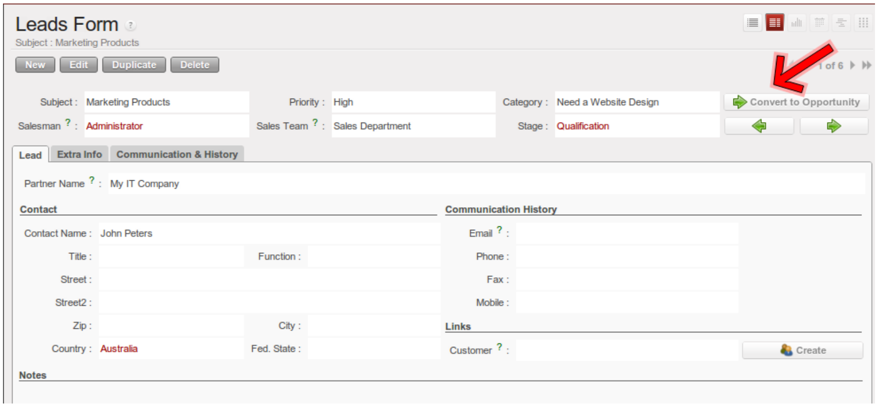
You can also easily combine filters; an arrow will be displayed and you will get a structure according to the order in which you clicked the *Filter* buttons.

> Simply by changing the order in which you select your buttons, you will get a completely different filtered view. E.g. select Salesman first, then Campaign or vice versa.

4. Plan a meeting

One day later, Thomas contacts the prospect and convinces him to meet Luc so that the sales manager can give more information about the product range in view of a quotation.

Thomas plans a meeting for Luc. This meeting is organized next week with the customer and is related to the opportunity. He sets a reminder for Luc.



Leads Form

Subject : Marketing Products

Subject : Marketing Products

Priority : High

Category : Need a Website Design

Salesman ? : Administrator

Sales Team ? : Sales Department

Stage : Qualification

Partner Name ? : My IT Company

Contact

Contact Name : John Peters

Title :

Function :

Street :

Street2 :

Zip :

City :

Country : Australia

Fed. State :

Communication History

Email ? :

Phone :

Fax :

Mobile :

Links

Customer ? :

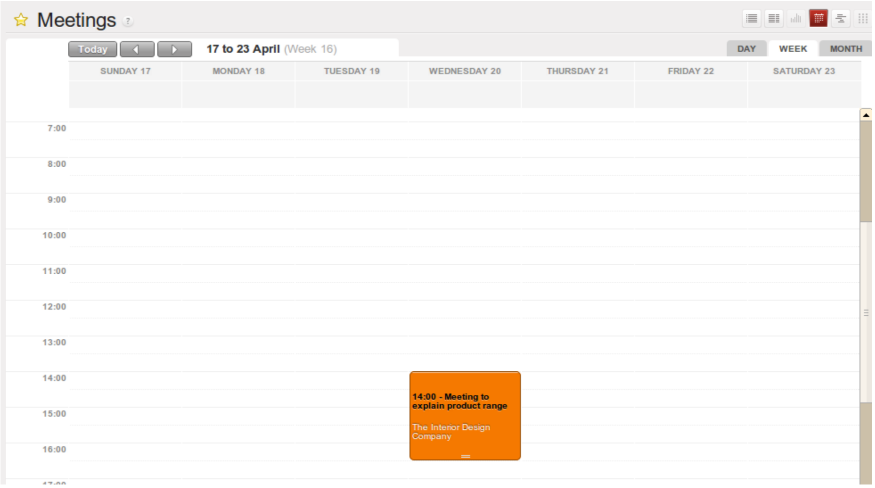
Notes

New
Edit
Duplicate
Delete
1 of 6
Convert to Opportunity
Lead
Extra Info
Communication & History
Create

Figure 2.8: *Convert Lead to Opportunity*

**Meeting**

Thomas goes to the list of opportunities through *Sales* → *Sales* → *Opportunities* to check his next actions. He opens the opportunity and contacts John Doe. He enters the key elements of his phone call in the `Details` field. To plan the meeting, Thomas clicks the *Schedule Meeting* button 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 week from 2 pm to 3 pm. He sets Luc as the person responsible and sets a reminder to be send 2 hours before the start of the meeting. He also changes the `Next Action Date` in the opportunity to the meeting date.



Meetings

17 to 23 April (Week 16)

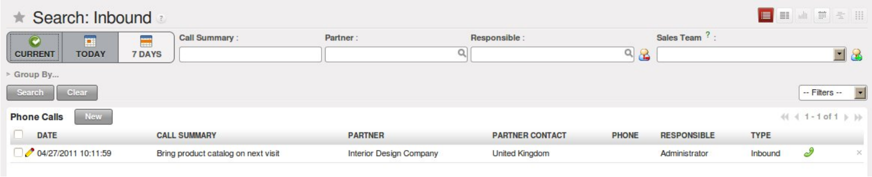
14:00 - Meeting to explain product range

The Interior Design Company

Today
DAY
WEEK
MONTH
SUNDAY 17
MONDAY 18
TUESDAY 19
WEDNESDAY 20
THURSDAY 21
FRIDAY 22
SATURDAY 23
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00

Figure 2.9: *Meeting Calendar*

5. Log an incoming phone call from the customer



| ☐ | DATE | CALL SUMMARY | PARTNER | PARTNER CONTACT | PHONE | RESPONSIBLE | TYPE |
|---|---|---|---|---|---|---|---|
| ☐ | 04/27/2011 10:11:59 | Bring product catalog on next visit | Interior Design Company | United Kingdom | | Administrator | Inbound |

Figure 2.10: *Incoming (Inbound) Call*

A few days later, John Doe calls and Eric, the Product Manager, answers the phone. The customer asks Eric if Luc, the Sales Manager, can bring a product catalog when he comes to see him.

Eric enters a summary of the phone call as an inbound call, and links it to *The Interior Design Company*.

**Phone Calls**

Eric goes to *Sales* → *Sales* → *Phone Calls* and clicks *Inbound*, then *New* to start entering the call. The call can be entered in the line. In the `Call Summary`, he enters *Bring product catalog on next visit* and assigns the call to *The Interior Design Company*. He enters a summary of the phone call in the `Description` field so that Luc knows exactly what has been discussed.

**Call Summary**

Eric can also click the Form view button to open the call form, so that he can add a summary of the phone call in the `Description` field to make sure that Luc knows exactly what has been discussed.

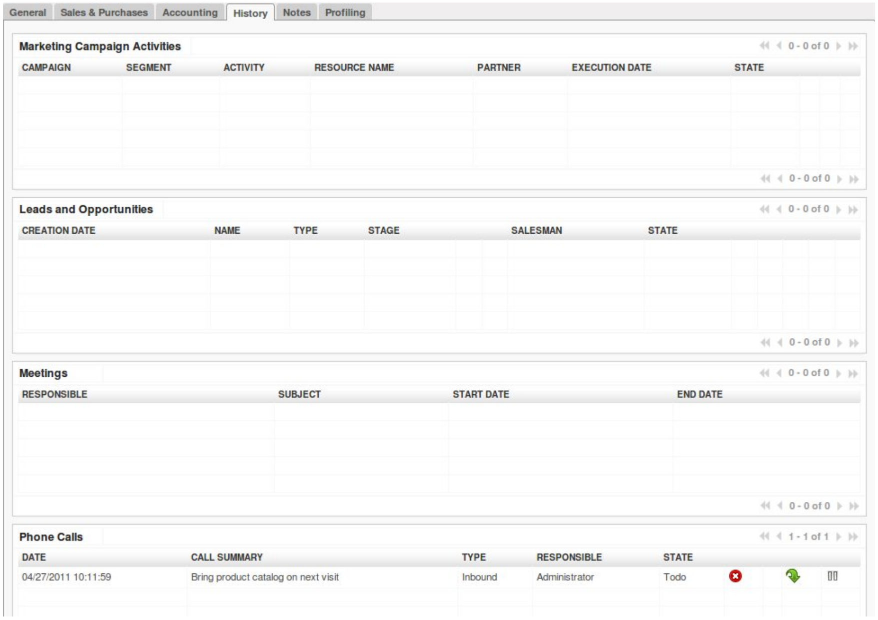
6. Check the history of the customer

To prepare his meeting with *The Interior Design Company*, Luc checks the related customer form to get the history of all related events.

**History**

Luc goes to *Sales* → *Address Book* → *Customers* and types *Interior* in the `Name` field and clicks *Search*. He clicks the customer to open the form. On the *History* tab, Luc gets an overview of all the events, such as meetings and phone calls. So he notices that he has to bring a product catalog to the meeting.

7. Convert the opportunity into a sales quotation


General
Sales & Purchases
Accounting
History
Notes
Profiling
0 - 0 of 0

**Marketing Campaign Activities**

| CAMPAIGN | SEGMENT | ACTIVITY | RESOURCE NAME | PARTNER | EXECUTION DATE | STATE |
|---|---|---|---|---|---|---|

**Leads and Opportunities**

| CREATION DATE | NAME | TYPE | STAGE | SALESMAN | STATE |
|---|---|---|---|---|---|

**Meetings**

| RESPONSIBLE | SUBJECT | START DATE | END DATE |
|---|---|---|---|

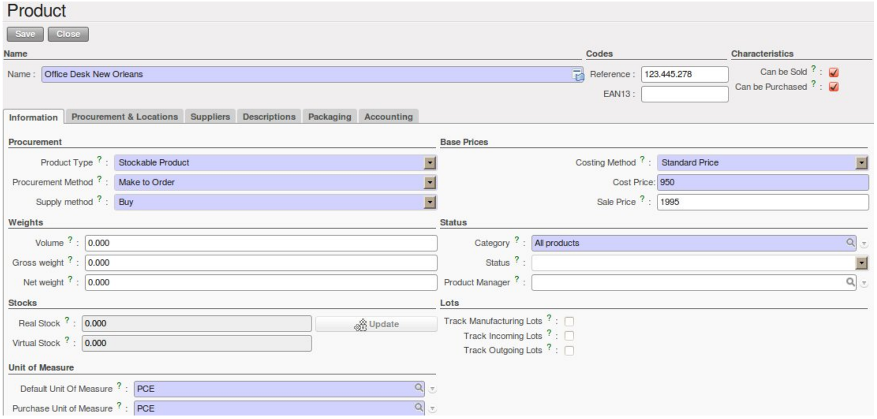
**Phone Calls**

1 - 1 of 1

| DATE | CALL SUMMARY | TYPE | RESPONSIBLE | STATE |
|---|---|---|---|---|
| 04/27/2011 10:11:59 | Bring product catalog on next visit | Inbound | Administrator | Todo |

Figure 2.11: *Customer History*

During the meeting, the customer *The Interior Design Company* finally asks to receive a quotation for an Office Desk and Chair. Luc generates the quotation directly from the business opportunity.


Save
Close
Information
Procurement & Locations
Suppliers
Descriptions
Packaging
Accounting
Update

Product

**Name**

Name : Office Desk New Orleans

**Codes**

Reference : 123.445.278

EAN13 :

**Characteristics**

Can be Sold ? : ☑

Can be Purchased ? : ☑

**Procurement**

Product Type ? : Stockable Product

Procurement Method ? : Make to Order

Supply method ? : Buy

**Base Prices**

Costing Method ? : Standard Price

Cost Price: 950

Sale Price ? : 1995

**Weights**

Volume ? : 0.000

Gross weight ? : 0.000

Net weight ? : 0.000

**Status**

Category ? : All products

Status ? :

Product Manager ? :

**Stocks**

Real Stock ? : 0.000

Virtual Stock ? : 0.000

**Lots**

Track Manufacturing Lots ? : ☐

Track Incoming Lots ? : ☐

Track Outgoing Lots ? : ☐

**Unit of Measure**

Default Unit Of Measure ? : PCE

Purchase Unit of Measure ? : PCE

Figure 2.12: *Product*

**Quotation & Products**

Luc opens the opportunity concerned from *Sales* → *Sales* → *Opportunities*. He clicks the *Convert to Quote* button, then *Create* to make a quotation that is automatically linked to the opportunity. Now he can enter the products he will be selling. Luc has to create a new product, because the desk ordered is a brand new product. From the sales order line, Luc presses the F1 button in the `Product` field to create a new product. He enters the data as specified in the screenshot. To print the quotation, he clicks *Quotation / Order* in the *Reports* section at the right side of the screen.

8. Check the pipeline of revenues for the next months

Luc, the Sales Manager, would also like to check the quality of his sales team, and he would like to know the delay to close the opportunity. He would like to see the average closing time for the House & Design campaign.

**Average Closing Time**

From the *Sales* → *Reporting* → *Opportunities Analysis*, Luc finds the average time taken to successfully respond to a request from a customer in the *Delay to Close* field. Instead of using the default grouping by salesman, Luc clicks the Salesman button in the Group by list to no longer group by salesman, and then he clicks the *Campaign* button to group by campaign.

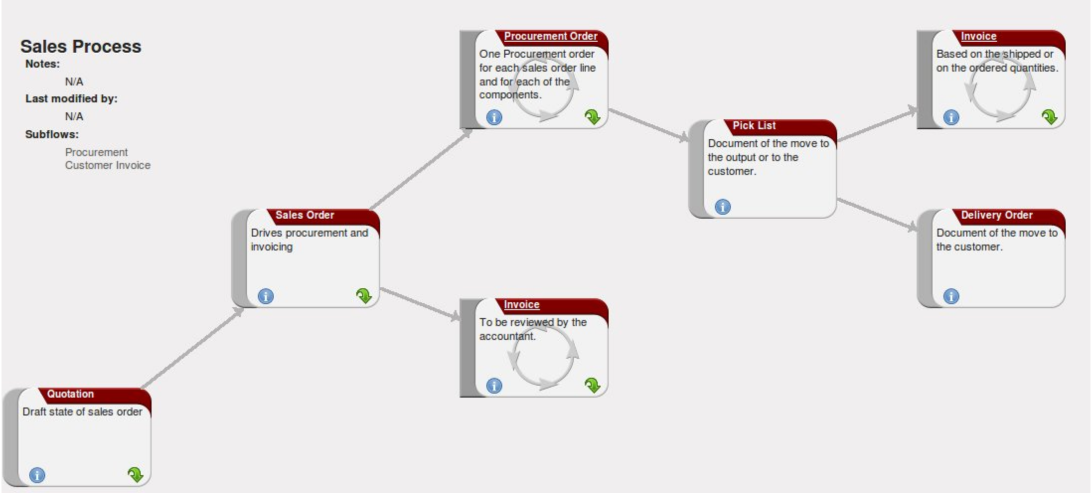
9. Convert the quotation into a sales order

After some discussion about the prices, the customer decides to sign a contract. Luc confirms the quotation to turn it into a sales order.

**Sales Orders**

Luc opens the quotation concerned from *Sales* → *Sales Orders*. He clicks the *Quotation* button to see no confirmed sales orders. He opens the quotation by clicking the pencil in front of it, and changes the prices. Then he clicks the *Confirm Order* button to turn the quotation into a sales order. To print the sales order, he clicks *Quotation / Order* in the *Reports* section at the right side of the screen.

Below you find a graphical representation of the sales flow we explained before; the part from quotation to sales order. This view is available in OpenERP. You can open this *Process view* by clicking the question mark next to the *Sales Order* title.



Sales Process

Notes:
N/A

Last modified by:
N/A

Subflows:
Procurement
Customer Invoice

**Quotation**
Draft state of sales order

**Sales Order**
Drives procurement and invoicing

**Procurement Order**
One Procurement order for each sales order line and for each of the components.

**Invoice**
To be reviewed by the accountant.

**Pick List**
Document of the move to the output or to the customer.

**Invoice**
Based on the shipped or on the ordered quantities.

**Delivery Order**
Document of the move to the customer.

Figure 2.13: *From Quotation to Invoice*

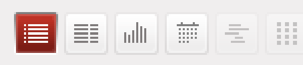


Figure 2.14: *View Buttons*

Before going to the next chapter, just a quick word about the different View buttons in OpenERP. The screenshot below shows the kinds of buttons available. Each button represents a different way of looking at data.

From the opportunities screen, Thomas will click the first *List* view button to get an overview of several opportunities at a time. When Thomas wants more information about a specific opportunity, he will switch to *Form* view. Then Thomas decides he wants to see the opportunities in a graphical representation, so he clicks the *Graph* (3rd) button to display a graph with the opportunities expressed according to Category versus Expected Revenue. He could choose to display the opportunities in *Calendar* view. Thomas wants to see his meetings in a bar chart representation, and so he clicks the *Gannt* view button. To see a process representation of his marketing campaign, he clicks the *Diagram* view button.

Please note that this is just an explanation of the different view buttons.

# Part III

# Accounting

# How to Keep Track of your Invoicing & Payments

# 3

## 3.1 Invoicing Workflow

In OpenERP, the invoicing workflow is very simple. You can see it in the following figure:

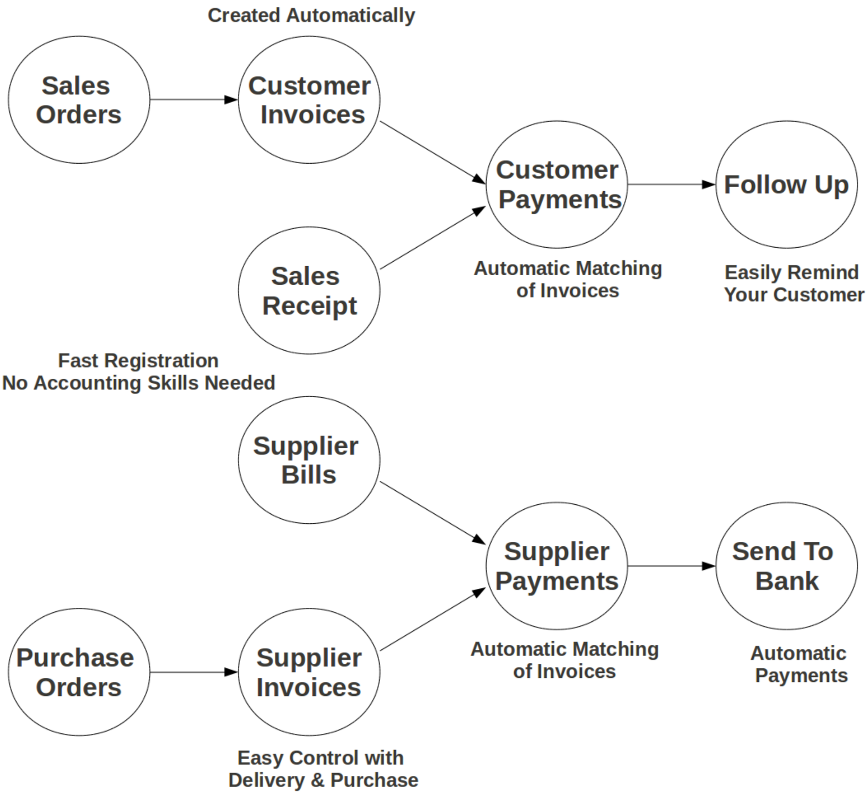

Created Automatically
Sales Orders
Customer Invoices
Customer Payments
Follow Up
Sales Receipt
Automatic Matching of Invoices
Easily Remind Your Customer
Fast Registration
No Accounting Skills Needed
Supplier Bills
Supplier Payments
Send To Bank
Purchase Orders
Supplier Invoices
Automatic Matching of Invoices
Automatic Payments
Easy Control with Delivery & Purchase

Figure 3.1: *Invoicing workflow*

An invoice can be generated from various documents like a *Sales Order*, a *Purchase Order* and also at the time of confirmation of a shipment.

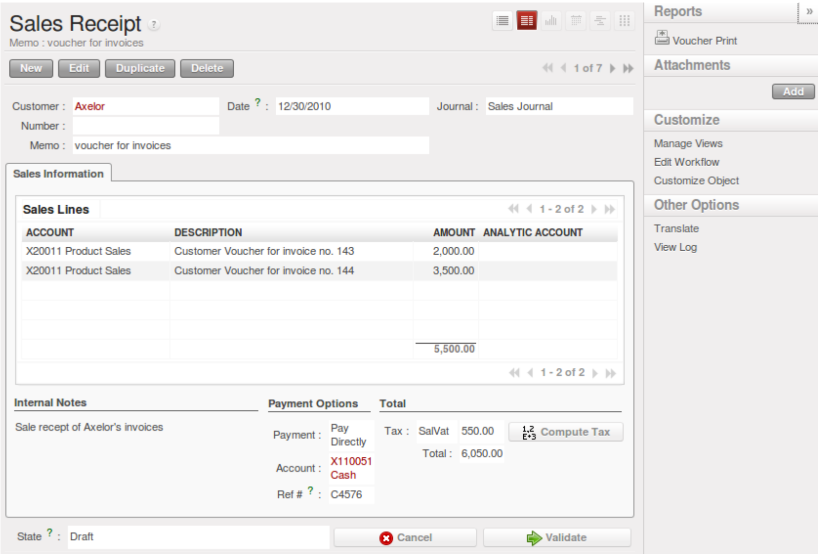
The invoicing system in OpenERP allows you to keep track of your accounting, even when you are not an accountant. It provides an easy way to follow up your suppliers and customers.

### 3.1.1 Customer Receipts / Supplier Vouchers

When you sell products to a customer, you can give him an 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, it creates journal items automatically and you can record the customer payment related to this sales receipt.

You can create and modify the sales receipt using the menu *Accounting* → *Customers* → *Sales Receipt*.



Memo : voucher for invoices

Customer : Axelor
Date : 12/30/2010
Journal : Sales Journal
Number :
Memo : voucher for invoices

| ACCOUNT | DESCRIPTION | AMOUNT | ANALYTIC ACCOUNT |
|---|---|---|---|
| X20011 Product Sales | Customer Voucher for invoice no. 143 | 2,000.00 | |
| X20011 Product Sales | Customer Voucher for invoice no. 144 | 3,500.00 | |
| | | 5,500.00 | |

**Internal Notes**

Sale recept of Axelor's invoices

**Payment Options**

Payment : Pay Directly
Account : X110051 Cash
Ref # : C4576

**Total**

Tax : SalVat 550.00
Total : 6,050.00

State : Draft

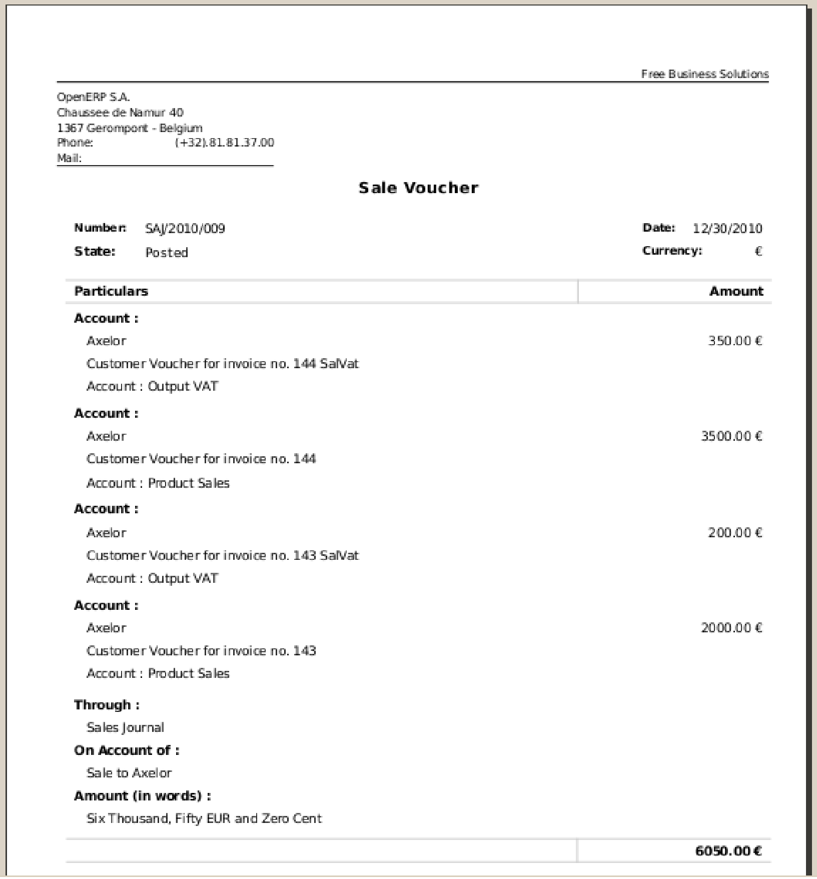
Figure 3.2: *Defining a Customer Receipt*

When you create a new *Sales Receipt*, you have to enter the *Customer* for which 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 can have two options for *Payment*: one is *Pay Directly* and another is *Pay Later or Group Funds*. You have to enter *Account* in the case of the *Pay Directly* option. The *Total* amount displays automatically with calculation of tax when you click the *Compute Tax* button.

After validating the sales receipt, you can print the voucher by clicking the *Voucher Print* action at the upper right side. The voucher will be printed as follows.

When you purchase products from a supplier, a *Supplier Voucher* (a ticket) is given to you which is also called *Notes Payable* in accounting terminology. When a supplier voucher is confirmed, it creates journal items automatically and you can record the supplier payment related to this purchase receipt.

You can create and modify the supplier voucher through the menu *Accounting* → *Suppliers* → *Supplier Vouchers*.



Free Business Solutions

OpenERP S.A.
Chaussee de Namur 40
1367 Gerompont - Belgium
Phone: (+32).81.81.37.00
Mail:

**Sale Voucher**

**Number:** SAJ/2010/009
**State:** Posted
**Date:** 12/30/2010
**Currency:** €

| Particulars | Amount |
|---|---|
| **Account :** | |
| Axelor | 350.00 € |
| Customer Voucher for invoice no. 144 SalVat | |
| Account : Output VAT | |
| **Account :** | |
| Axelor | 3500.00 € |
| Customer Voucher for invoice no. 144 | |
| Account : Product Sales | |
| **Account :** | |
| Axelor | 200.00 € |
| Customer Voucher for invoice no. 143 SalVat | |
| Account : Output VAT | |
| **Account :** | |
| Axelor | 2000.00 € |
| Customer Voucher for invoice no. 143 | |
| Account : Product Sales | |
| **Through :** | |
| Sales Journal | |
| **On Account of :** | |
| Sale to Axelor | |
| **Amount (in words) :** | |
| Six Thousand, Fifty EUR and Zero Cent | |
| | **6050.00 €** |

Figure 3.3: *Sales Voucher*

The *Supplier Voucher* form looks like the *Sales Receipt* form. In this form, carefully select the journal. After validating the *Supplier Voucher*, you can print it using the *Voucher Print* action.

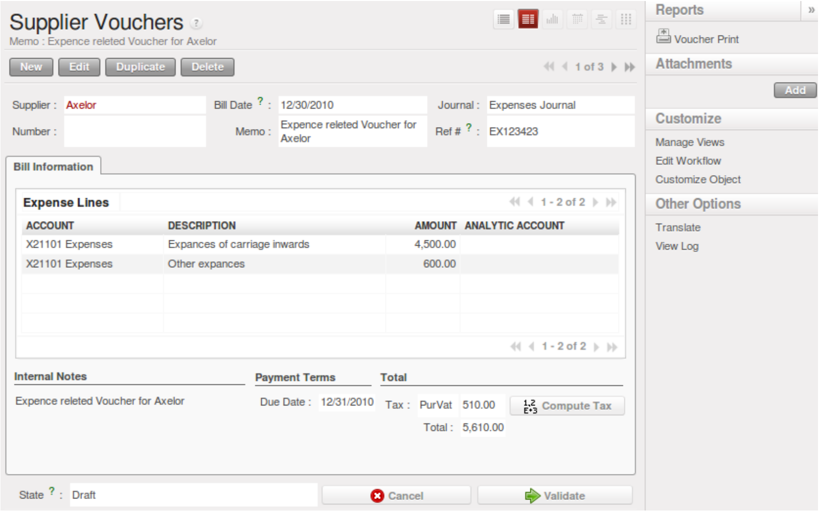
### 3.1.2 Keep Track of your Payments

You should efficiently keep track of payments of your customers and suppliers.

*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 open invoices or sales receipts.

You can do this in OpenERP using the menu *Accounting* → *Customers* → *Customer Payment*.

To create a new *Customer Payment*, select the customer and *Payment Method*. You can add invoices and other transactions in the *Payment Information* tab. Now select the proper *Payment Difference*, i.e. *Keep Open* and *Reconcile with Write-Off*. In the case of *Reconcile with Write-Off*, the write-off amount


New
Edit
Duplicate
Delete
1 of 3
Reports
Voucher Print
Attachments
Add
Customize
Manage Views
Edit Workflow
Customize Object
Other Options
Translate
View Log
Bill Information
1 - 2 of 2
Compute Tax
Cancel
Validate

Supplier Vouchers

Memo : Expence releted Voucher for Axelor

| | | | | | |
|---|---|---|---|---|---|
| Supplier : | Axelor | Bill Date ? : | 12/30/2010 | Journal : | Expenses Journal |
| Number : | | Memo : | Expence releted Voucher for Axelor | Ref # ? : | EX123423 |

Expense Lines

| ACCOUNT | DESCRIPTION | AMOUNT | ANALYTIC ACCOUNT |
|---|---|---|---|
| X21101 Expenses | Expances of carriage inwards | 4,500.00 | |
| X21101 Expenses | Other expances | 600.00 | |

Internal Notes

Expence releted Voucher for Axelor

Payment Terms

Due Date : 12/31/2010

Total

Tax : PurVat 510.00

Total : 5,610.00

State ? : Draft

Figure 3.4: *Definition of Supplier Voucher*

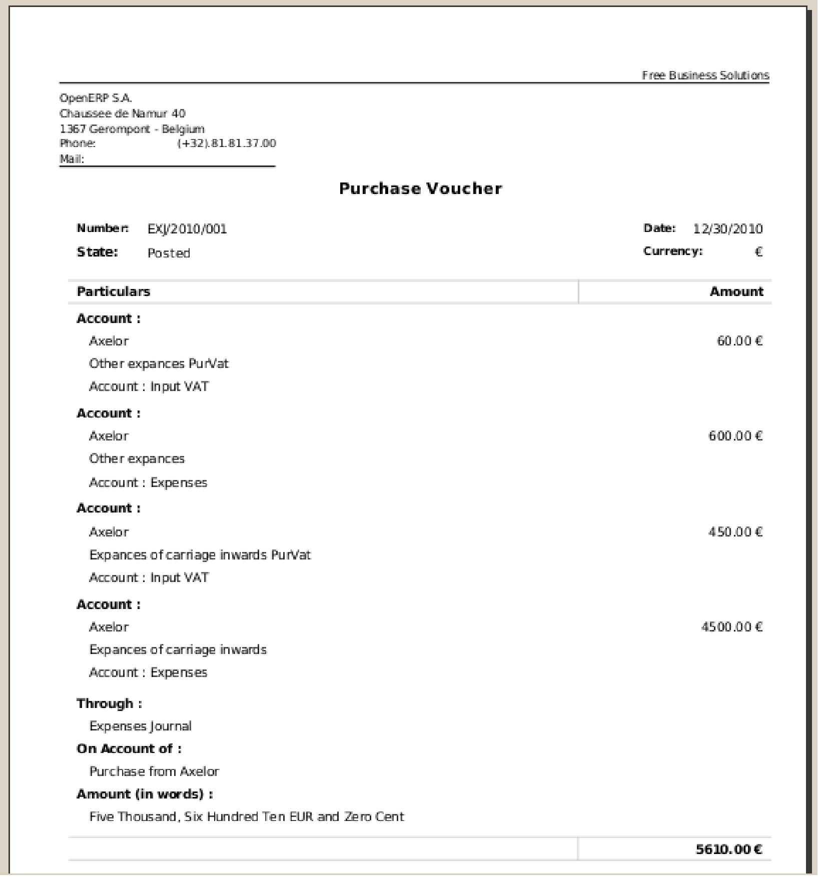
will come automatically but you have to enter the *Write-Off account* so that accounting entries can be generated by OpenERP.

The supplier payment form allows you to track the payment you do to your suppliers. When you select a supplier, the payment method and an amount for the payment, OpenERP will propose to reconcile your payment with the open supplier invoices or bills.

Through the menu *Accounting* → *Suppliers* → *Supplier Payment*, click the *New* button to create a new *Supplier Payment*.

To create a new *Supplier Payment*, select the supplier and *Payment Method*. You can create the *Supplier Invoices and Outstanding transactions* lines by selecting the invoice lines as well outstanding expenses. Now select the proper *Payment Difference*, i.e. *Keep Open* and *Reconcile with Write-Off*.

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 customer and supplier, makes OpenERP more adoptable. In this section, we discuss *Customer Receipt* and *Supplier Voucher*, as well as *Customer Payment* and *Supplier Payment* process.



Free Business Solutions

OpenERP S.A.
Chaussee de Namur 40
1367 Gerompont - Belgium
Phone: (+32).81.81.37.00
Mail:

**Purchase Voucher**

**Number:** EXJ/2010/001
**State:** Posted
**Date:** 12/30/2010
**Currency:** €

| **Particulars** | **Amount** |
|---|---|
| **Account :** | |
| Axelor | 60.00 € |
| Other expances PurVat | |
| Account : Input VAT | |
| **Account :** | |
| Axelor | 600.00 € |
| Other expances | |
| Account : Expenses | |
| **Account :** | |
| Axelor | 450.00 € |
| Expances of carriage inwards PurVat | |
| Account : Input VAT | |
| **Account :** | |
| Axelor | 4500.00 € |
| Expances of carriage inwards | |
| Account : Expenses | |
| **Through :** | |
| Expenses Journal | |
| **On Account of :** | |
| Purchase from Axelor | |
| **Amount (in words) :** | |
| Five Thousand, Six Hundred Ten EUR and Zero Cent | |
| | **5610.00 €** |

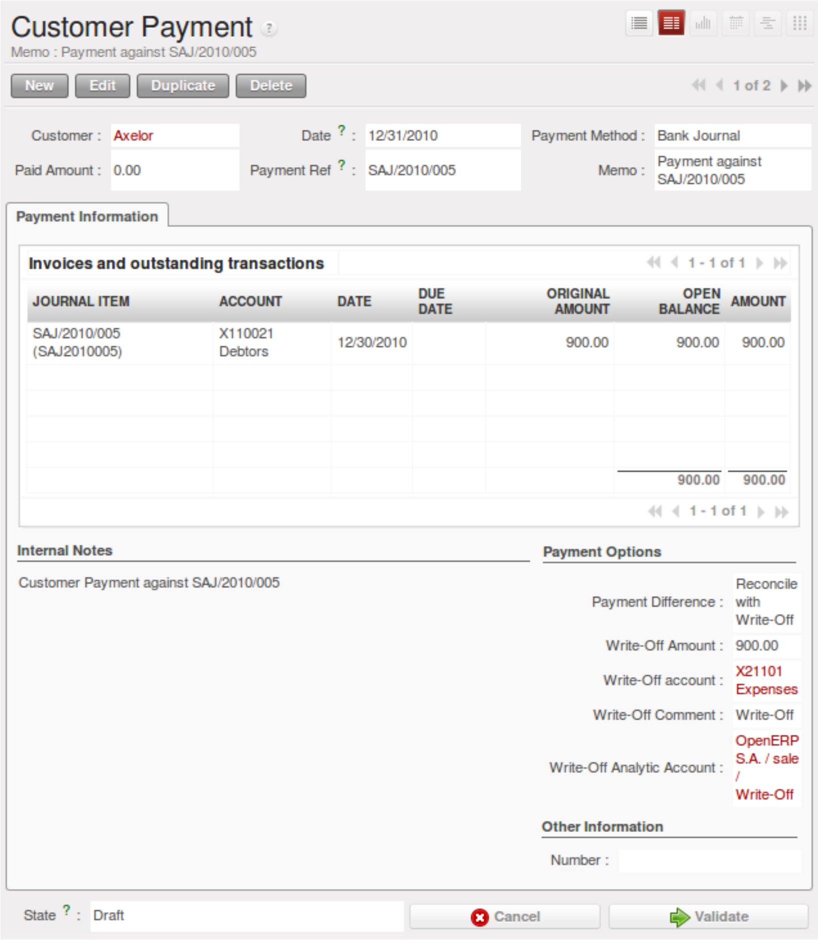
Figure 3.5: *Supplier Voucher*

# Accounting Workflow and Automatic Invoice Creation

# 4

The chart *Accounting workflow for invoicing and payment* (page 29) shows the financial workflow followed by each invoice.

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.



Customer Payment

Memo : Payment against SAJ/2010/005

Customer : Axelor

Date : 12/31/2010

Payment Method : Bank Journal

Paid Amount : 0.00

Payment Ref : SAJ/2010/005

Memo : Payment against SAJ/2010/005

Payment Information

Invoices and outstanding transactions

| JOURNAL ITEM | ACCOUNT | DATE | DUE DATE | ORIGINAL AMOUNT | OPEN BALANCE | AMOUNT |
|---|---|---|---|---|---|---|
| SAJ/2010/005 (SAJ2010005) | X110021 Debtors | 12/30/2010 |  | 900.00 | 900.00 | 900.00 |
|  |  |  |  |  | 900.00 | 900.00 |

1 - 1 of 1

Internal Notes

Customer Payment against SAJ/2010/005

Payment Options

Payment Difference : Reconcile with Write-Off

Write-Off Amount : 900.00

Write-Off account : X21101 Expenses

Write-Off Comment : Write-Off

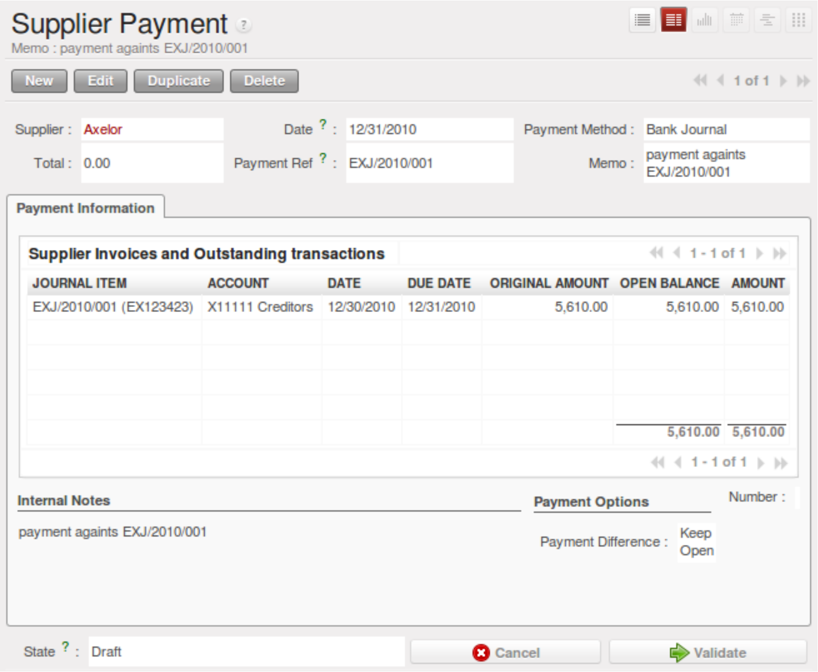
Write-Off Analytic Account : OpenERP S.A. / sale / Write-Off

Other Information

Number :

State : Draft

Figure 3.6: *Customer Payment Form*


New
Edit
Duplicate
Delete
1 of 1
Cancel
Validate

Supplier Payment

Memo : payment againts EXJ/2010/001

| | | | | | |
|---|---|---|---|---|---|
| Supplier : | Axelor | Date ? : | 12/31/2010 | Payment Method : | Bank Journal |
| Total : | 0.00 | Payment Ref ? : | EXJ/2010/001 | Memo : | payment againts EXJ/2010/001 |

Payment Information

Supplier Invoices and Outstanding transactions

1 - 1 of 1

| JOURNAL ITEM | ACCOUNT | DATE | DUE DATE | ORIGINAL AMOUNT | OPEN BALANCE | AMOUNT |
|---|---|---|---|---|---|---|
| EXJ/2010/001 (EX123423) | X11111 Creditors | 12/30/2010 | 12/31/2010 | 5,610.00 | 5,610.00 | 5,610.00 |
| | | | | | 5,610.00 | 5,610.00 |

1 - 1 of 1

Internal Notes

payment againts EXJ/2010/001

Payment Options

Number :

Payment Difference : Keep Open

State ? : Draft

Figure 3.7: *Supplier Payment Form*

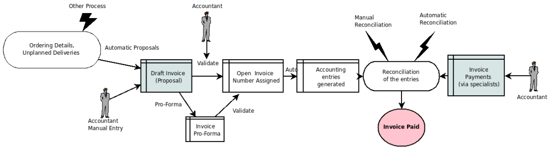

Other Process
Ordering Details, Unplanned Deliveries
Automatic Proposals
Accountant
Validate
Draft Invoice (Proposal)
Accountant Manual Entry
Pro-Forma
Invoice Pro-Forma
Validate
Open Invoice Number Assigned
Auto
Accounting entries generated
Manual Reconciliation
Automatic Reconciliation
Reconciliation of the entries
Invoice Paid
Invoice Payments (via specialists)
Accountant

Figure 4.1: *Accounting workflow for invoicing and payment*

## 4.1 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).

**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.

## 4.2 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.

An open invoice has a unique invoice number. The invoice is sent to the customer and is marked on the system as awaiting payment.

## 4.3 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.

**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.

**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.

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.

**Treatment in Lots**

Usually, different transactions are grouped together and handled at the same time rather than invoice by invoice. This is called batch work or lot handling.

You can select several documents in the list of invoices: check the checkboxes of the interesting lines using the web client and click the appropriate shortcut button at the right; or shift-click the lines using the mouse in the GTK client and use the action or print button at the top – these give you the option of a number of possible actions on the selected objects.

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.

## 4.4 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

## 5

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.

> **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.

> **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 *ch-hr*),
- from closed tasks (see *ch-projects*),
- from fee charges or other rechargeable expenses (see *ch-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.

## 5.1 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 *New* button for this.

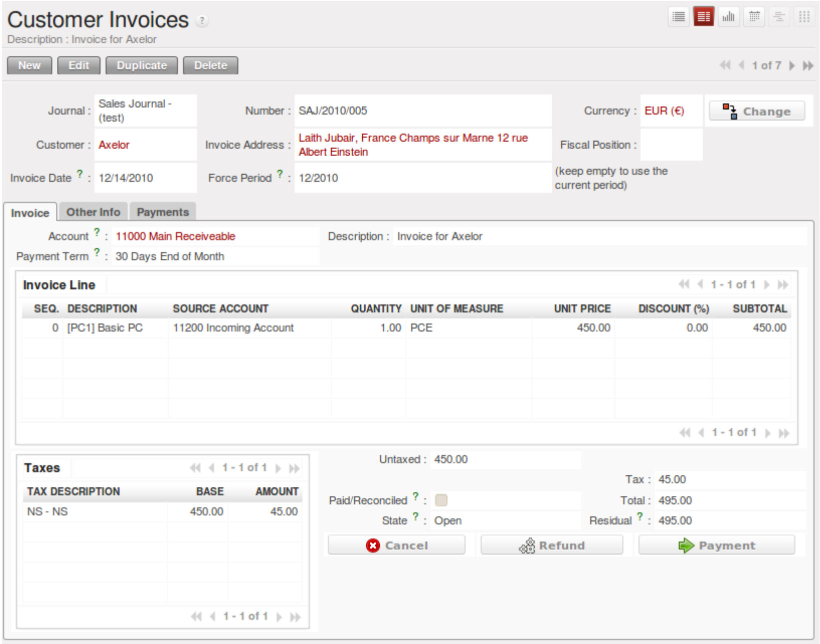
A new invoice form opens for entering information.

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 detail about the 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 partner form (or otherwise the address type of *Default*),



Description : Invoice for Axelor

Journal : Sales Journal - (test)
Number : SAJ/2010/005
Currency : EUR (€)
Customer : Axelor
Invoice Address : Laith Jubair, France Champs sur Marne 12 rue Albert Einstein
Fiscal Position :
Invoice Date ? : 12/14/2010
Force Period ? : 12/2010
(keep empty to use the current period)

Account ? : 11000 Main Receiveable
Description : Invoice for Axelor
Payment Term ? : 30 Days End of Month

**Invoice Line** 1 - 1 of 1

| SEQ. | DESCRIPTION | SOURCE ACCOUNT | QUANTITY | UNIT OF MEASURE | UNIT PRICE | DISCOUNT (%) | SUBTOTAL |
|---|---|---|---|---|---|---|---|
| 0 | [PC1] Basic PC | 11200 Incoming Account | 1.00 | PCE | 450.00 | 0.00 | 450.00 |

**Taxes** 1 - 1 of 1

| TAX DESCRIPTION | BASE | AMOUNT |
|---|---|---|
| NS - NS | 450.00 | 45.00 |

Untaxed : 450.00
Tax : 45.00
Paid/Reconciled ? : ☐
Total : 495.00
State ? : Open
Residual ? : 495.00

Figure 5.1: *Entering a New Invoice*

- the partner account corresponds to the account given in the *Accounting* which is found in a tab of the partner form,
- a specific or a default payment condition can be defined for this partner in the *Accounting* tab of the partner 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.

**Properties Fields**

The Properties fields on the Partner 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 partner depend on the company that the user works for.

**Seeing Partner Relationships**

You can reach more information from certain relation fields in OpenERP.

- In the web client in read-only mode, a relation is commonly a hyperlink - it takes you to the main form for that entity, with all of the actions and links.
- In the web client in edit mode you can right-click in the field to get a context menu with links and other options.
- And in the GTK client you can right-click the field to get that same context menu.

So one way or another you can rapidly reach the partner'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.

**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 in the second tab *Notes*.

So select the product `Basic PC` 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 and is expressed without taxes,
- *Taxes* : provided by the product form and the partner form.

**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.

**Information about the Product**

When you are entering invoice data, it can sometimes be useful to get hold of more information about the product you are invoicing. Since you are already in edit mode, you would use a right mouse-click on the *Product* field (in both the web and the GTK clients). Then select the available reports. OpenERP provides three standard reports about the product:

- forecasts of future stock,
- product cost structure,
- location of the product in your warehouses.

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 *Compute Taxes* on the invoice to get the following information:

- details of tax calculated,
- tax rate,
- total taxes,
- total price.

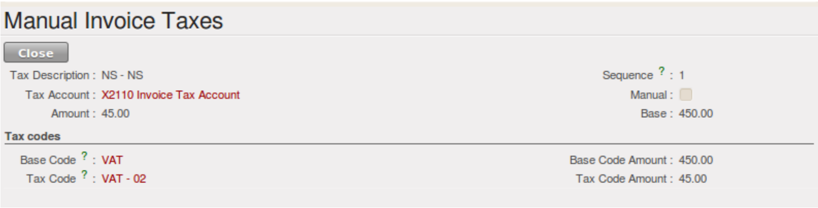
In the *Taxes* area at the bottom left of the invoice you will find the details of the totals calculated for different tax rates used in the invoice.

**Tax Calculations**

You can double-click one of the lines in the tax summary areas in the invoice.

OpenERP then shows you the detail of the tax charges which will form your tax declaration at the end of the period.

It shows you the total that will be computed in the different parts of the legal declaration. This enables you to manage the declaration in OpenERP automatically.



Tax Description : NS - NS
Tax Account : X2110 Invoice Tax Account
Amount : 45.00
Sequence ? : 1
Manual : ☐
Base : 450.00

Tax codes

Base Code ? : VAT
Tax Code ? : VAT - 02
Base Code Amount : 450.00
Tax Code Amount : 45.00

Figure 5.2: *Detail of tax charges on an invoice*

Before approving the invoice you can modify the date and the accounting period, which are entered by default as today's date. These fields are found on the second tab *Other Info*.

**Invoice Layout**

If you want to make your invoice layout more elaborate you can install the module `account_invoice_layout`. This enables you to add various elements between the lines such as subtotals, sections, separators and notes.

Click *Validate* when you want to approve the invoice. It moves from the `Draft` state to the `Open` state.

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 *Administration* → *Configuration* → *Sequences* → *Sequences*.

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.

## 5.2 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

**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.

**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:

- sales price,
- applicable taxes,
- account,
- product description.

## 5.3 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.

When the invoice has been cancelled you could then put it back into the `Draft` state. So you could modify it and approve it again later.

**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 *Administration* → *Configuration* → *Sequences* → *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.

**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.

**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 one. In the web client, show the invoice in read-only (non-editable) form view, then click *Duplicate*. In the GTK client, select *Form* → *Duplicate* from the top menu.

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.

**Saving Partner Preferences**

OpenERP has many functions to help you enter data quickly. If you invoice the same products frequently for the same partner you can save the last invoice preferences using conditional default values.

To test this functionality, create an invoice for a partner and add some lines (from the GTK client). Then right-click on the *Invoice Line* field and select *Set Default*. Check the box that indicates this default should apply only to you.

Then the next time you create an invoice, these invoice lines will be automatically created and you will only have to modify the quantities before confirming the invoice.

For taxes, you could put the default amount in the invoice lines (in France it would be 19.6%, in Belgium 21%, in the UK 17.5% or 15%). Doing this, you will not forget to add tax when you are manually entering invoices.

(The capabilities of the GTK client are more extensive than those of the web client. You can set defaults for multiple lines in the GTK client but only a single line in the web client, so you need to be quite sure what is possible before you use this functionality routinely.)

**Getting Information by Navigating to it**

As you are creating an invoice you will often find you need extra information about the partner to help you complete the invoice. As described earlier, you can navigate to other information linked to this partner by right-clicking, such as:

- Monthly Turnover
- Benefit Details,
- Most Recent Invoices,
- Latest Orders - Sales Order, Purchase Order.

Do the same to get information about the products you are invoicing. For example: is there enough stock? When will you be getting more stocks in? What are the costs and normal list prices for this product?

By making this information easily accessible while you are invoicing, OpenERP greatly simplifies your work in creating the invoice.

## 5.4 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.

**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

- *Invoice Address*,

- 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*.

You must also enter the invoice *Total* with taxes included. OpenERP uses this amount to check whether all invoice lines have been entered correctly before it will let you validate the invoice.

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,
- set the *Unit Price* from the total price you are quoted after deducting all the different applicable taxes,

Click *Compute Taxes* to ensure that the totals correspond to those indicated on the paper invoice from the supplier. When you approve the invoice, OpenERP verifies that the total amount indicated in the header corresponds to the sum of the amounts without tax on the invoice lines and the different applicable taxes.

OpenERP automatically completes the *Date Invoiced* and the accounting period.

**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.

**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 modify a value in the lines that the total is based on, or the total amount of taxes at the bottom left of the form: both are editable so that you can modify them to adjust the 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.

## 5.5 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 `Open` or `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.

**Crediting Several Invoices**

You can credit more than one customer invoice using the menu *Accounting → Customers → Customer Payment*. You can find the *Invoices and outstanding transactions* and *Credits* for the particular customers. Enter the amount in the field *Paid Amount* and validate it.

## 5.6 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.

> **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 *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

# 6

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

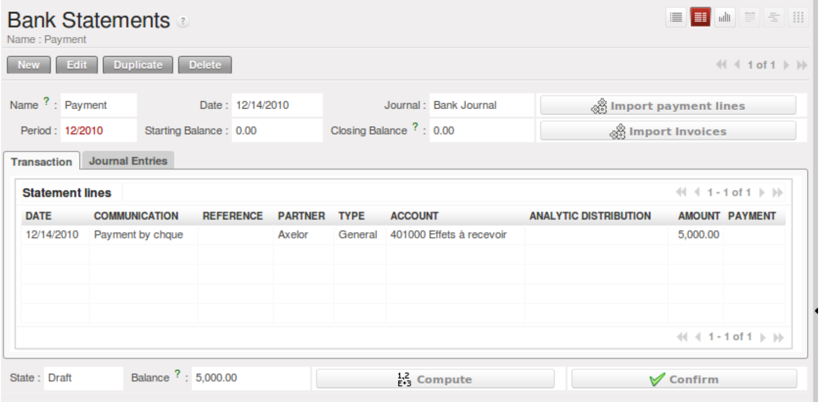
- managing bank statements,
- managing cash,
- manual journal entries,

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.

## 6.1 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* (page 47).



Name ? : Payment
Date : 12/14/2010
Journal : Bank Journal
Period : 12/2010
Starting Balance : 0.00
Closing Balance ? : 0.00

| DATE | COMMUNICATION | REFERENCE | PARTNER | TYPE | ACCOUNT | ANALYTIC DISTRIBUTION | AMOUNT | PAYMENT |
|---|---|---|---|---|---|---|---|---|
| 12/14/2010 | Payment by chque | | Axelor | General | 401000 Effets à recevoir | | 5,000.00 | |

State : Draft
Balance ? : 5,000.00

Figure 6.1: *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 *Administration → Configuration → 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.

## 6.2 Manual Entry

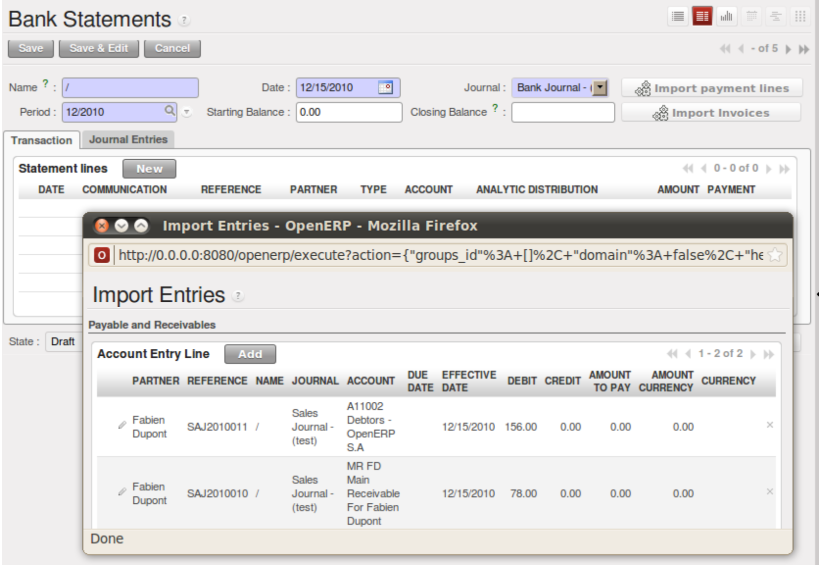
When you type the Partner name, OpenERP automatically proposes the corresponding centralisation account. The total amount due for the customer or supplier is pre-completed (*Amount*). This gives you a simple indication of the effective payment. You must then enter the amount that appears on your statement line: a negative sign for a withdrawal and a positive sign for a cash payment or deposit.

In the *Payment* press `F1` to reconcile your payment directly with the corresponding accounting entry or entries to be paid.

## 6.3 Import Invoices

Click the *Import Invoices* button, then click Add to select the invoices for which your payment will have to be reconciled. Click OK to confirm your selection; the statement line will automatically be added with the corresponding reconciliation.

> **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.


Bank Statements
Save
Save & Edit
Cancel
- of 5
Import payment lines
Import Invoices
Transaction
Journal Entries
Statement lines
New
0 - 0 of 0
Import Entries - OpenERP - Mozilla Firefox
Import Entries
Payable and Receivables
Account Entry Line
Add
1 - 2 of 2
Done

Name : /
Date : 12/15/2010
Journal : Bank Journal -
Period : 12/2010
Starting Balance : 0.00
Closing Balance :
State : Draft

| DATE | COMMUNICATION | REFERENCE | PARTNER | TYPE | ACCOUNT | ANALYTIC DISTRIBUTION | AMOUNT | PAYMENT |
|---|---|---|---|---|---|---|---|---|

http://0.0.0.0:8080/openerp/execute?action={"groups_id"%3A+[]%2C+"domain"%3A+false%2C+"he

| PARTNER | REFERENCE | NAME | JOURNAL | ACCOUNT | DUE DATE | EFFECTIVE DATE | DEBIT | CREDIT | AMOUNT TO PAY | AMOUNT CURRENCY | CURRENCY |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fabien Dupont | SAJ2010011 | / | Sales Journal - (test) | A11002 Debtors - OpenERP S.A |  | 12/15/2010 | 156.00 | 0.00 | 0.00 | 0.00 |  |
| Fabien Dupont | SAJ2010010 | / | Sales Journal - (test) | MR FD Main Receivable For Fabien Dupont |  | 12/15/2010 | 78.00 | 0.00 | 0.00 | 0.00 |  |

Figure 6.2: *Reconciliation from Data Entry of the Bank Statement*

If you see a difference between the payment and the invoices to reconcile, you can enter the 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).

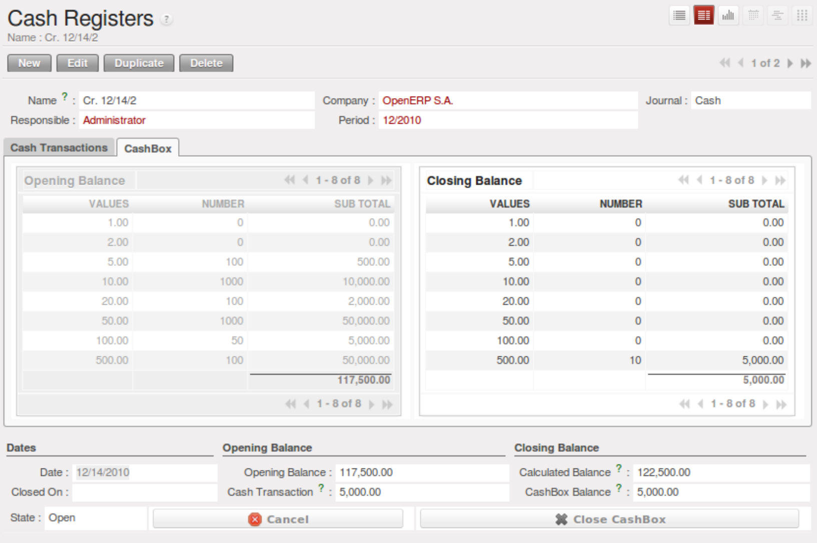
Finally, once you have entered the complete bank statement, you can validate it. OpenERP then automatically generates the corresponding accounting entries if the calculated balance equals the final balance, indicated in the Closing Balance field. The reconciled invoices are marked as paid at that point.

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.

## 6.4 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 open the cashbox to start making entries from the *Cash Transactions* tab.



Name : Cr. 12/14/2

| | | | | | |
|---|---|---|---|---|---|
| Name : | Cr. 12/14/2 | Company : | OpenERP S.A. | Journal : | Cash |
| Responsible : | Administrator | Period : | 12/2010 | | |

**Opening Balance**

| VALUES | NUMBER | SUB TOTAL |
|---|---|---|
| 1.00 | 0 | 0.00 |
| 2.00 | 0 | 0.00 |
| 5.00 | 100 | 500.00 |
| 10.00 | 1000 | 10,000.00 |
| 20.00 | 100 | 2,000.00 |
| 50.00 | 1000 | 50,000.00 |
| 100.00 | 50 | 5,000.00 |
| 500.00 | 100 | 50,000.00 |
| | | 117,500.00 |

**Closing Balance**

| VALUES | NUMBER | SUB TOTAL |
|---|---|---|
| 1.00 | 0 | 0.00 |
| 2.00 | 0 | 0.00 |
| 5.00 | 0 | 0.00 |
| 10.00 | 0 | 0.00 |
| 20.00 | 0 | 0.00 |
| 50.00 | 0 | 0.00 |
| 100.00 | 0 | 0.00 |
| 500.00 | 10 | 5,000.00 |
| | | 5,000.00 |

| Dates | | Opening Balance | | Closing Balance | |
|---|---|---|---|---|---|
| Date : | 12/14/2010 | Opening Balance : | 117,500.00 | Calculated Balance ? : | 122,500.00 |
| Closed On : | | Cash Transaction ? : | 5,000.00 | CashBox Balance ? : | 5,000.00 |
| State : | Open | | | | |

Figure 6.3: *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 *CashBox* 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.

**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.

## 6.5 Manual Entry in a Journal

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, then click *Find*. 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 *New* 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.

**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.

## 6.6 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).

**Do not confuse account reconciliation and bank statement reconciliation**

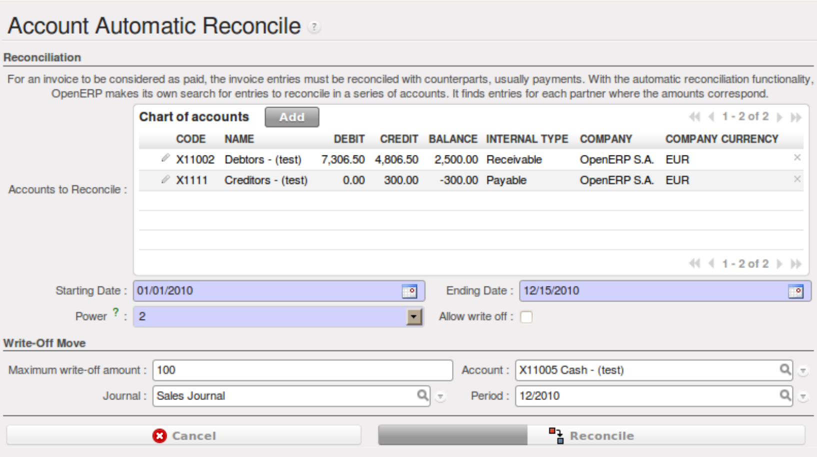
It is important not to confuse the reconciliation of accounting entries with bank statement reconciliation. Account reconciliation consists of linking account entries with each other, while statement reconciliation consists of verifying that your bank statement corresponds to the entries of that account in your accounting system. You can perform statement reconciliation using the menu *Accounting* → *Periodical Processing* → *Statements* → *Statements Reconciliation*.

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.

### 6.6.1 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.



Account Automatic Reconcile

**Reconciliation**

For an invoice to be considered as paid, the invoice entries must be reconciled with counterparts, usually payments. With the automatic reconciliation functionality, OpenERP makes its own search for entries to reconcile in a series of accounts. It finds entries for each partner where the amounts correspond.

Accounts to Reconcile :

**Chart of accounts** 1 - 2 of 2

| CODE | NAME | DEBIT | CREDIT | BALANCE | INTERNAL TYPE | COMPANY | COMPANY CURRENCY |
|---|---|---|---|---|---|---|---|
| X11002 | Debtors - (test) | 7,306.50 | 4,806.50 | 2,500.00 | Receivable | OpenERP S.A. | EUR |
| X1111 | Creditors - (test) | 0.00 | 300.00 | -300.00 | Payable | OpenERP S.A. | EUR |

1 - 2 of 2

Starting Date : 01/01/2010

Ending Date : 12/15/2010

Power ? : 2

Allow write off : ☐

**Write-Off Move**

Maximum write-off amount : 100

Account : X11005 Cash - (test)

Journal : Sales Journal

Period : 12/2010

Figure 6.4: *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:

- *Accounts to Reconcile* : you can select one, several or all reconcilable accounts,
- the dates to take into consideration (*Starting Date* / *Ending Date*),
- the Reconciliation *Power* (from `2` to `9` ),
- checkbox *Allow write off* to determine whether you will allow for payment differences.
- information needed for the adjustment (details for the *Write-Off Move*).

**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.

**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!

**Default Values**

If you run the automatic reconciliation tool regularly, you should set default values for each field by using the right-click mouse button in the web client (in edit mode) or the GTK client. The resulting context menu enables you to set default values. This means that you will not have to retype all the fields each time.

## 6.6.2 Manual Reconciliation

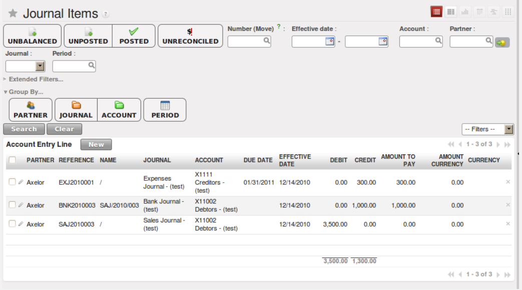
For manual reconciliation, open the entries for reconciling an account through the menu *Accounting* → *Periodical Processing* → *Reconciliation* → *Manual Reconciliation*.

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.

### *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.


Journal Items
UNBALANCED
UNPOSTED
POSTED
UNRECONCILED
Number (Move) :
Effective date :
Account :
Partner :
Journal :
Period :
Extended Filters...
Group By...
PARTNER
JOURNAL
ACCOUNT
PERIOD
Search
Clear
-- Filters --
Account Entry Line
New
1 - 3 of 3

| PARTNER | REFERENCE | NAME | JOURNAL | ACCOUNT | DUE DATE | EFFECTIVE DATE | DEBIT | CREDIT | AMOUNT TO PAY | AMOUNT CURRENCY | CURRENCY |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Axelor | EXJ2010001 | / | Expenses Journal - (test) | X1111 Creditors - (test) | 01/31/2011 | 12/14/2010 | 0.00 | 300.00 | 300.00 | 0.00 | |
| Axelor | BNK2010003 | SAJ/2010/003 | Bank Journal - (test) | X11002 Debtors - (test) | | 12/14/2010 | 0.00 | 1,000.00 | 1,000.00 | 0.00 | |
| Axelor | SAJ2010003 | / | Sales Journal - (test) | X11002 Debtors - (test) | | 12/14/2010 | 3,500.00 | 0.00 | 0.00 | 0.00 | |
| | | | | | | | 3,500.00 | 1,300.00 | | | |

Figure 6.5: *Unreconciled Accounting Entries*

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:

Table 6.1: 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:

Table 6.2: Write-off account

| Date | Ref. | Description | Account | Debit | Credit |
|---|---|---|---|---|---|
| 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.

# 7 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.

## 7.1 How to Manage your Payment Orders?

To use the tool for managing payments you must first install the module `account_payment`, or install `Supplier Payments` from the Configuration Wizard. It is 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.

**Payment Workflow**

An OpenERP workflow is associated with each payment order. Select a payment order, and if you are in the GTK client click *Plugins* → *Print workflow* from the top menu.

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.

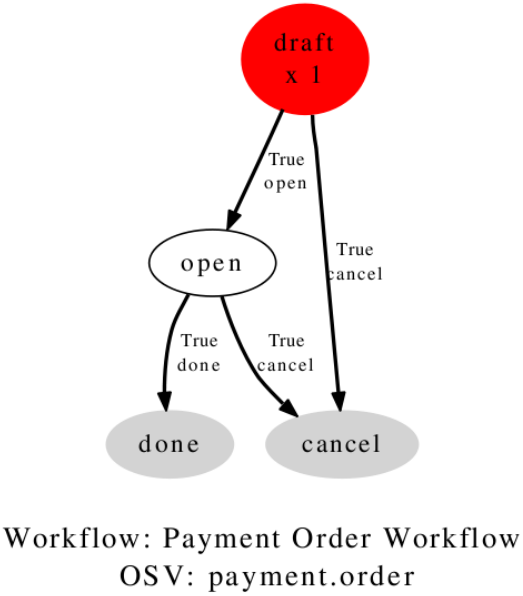

draft
x 1
True
open
open
True
cancel
True
done
True
cancel
done
cancel
Workflow: Payment Order Workflow
OSV: payment.order

Figure 7.1: *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.

## 7.2 Prepare and Transfer Orders

To enter a payment order, use the menu *Accounting* → *Payment* → *Payment Orders*.

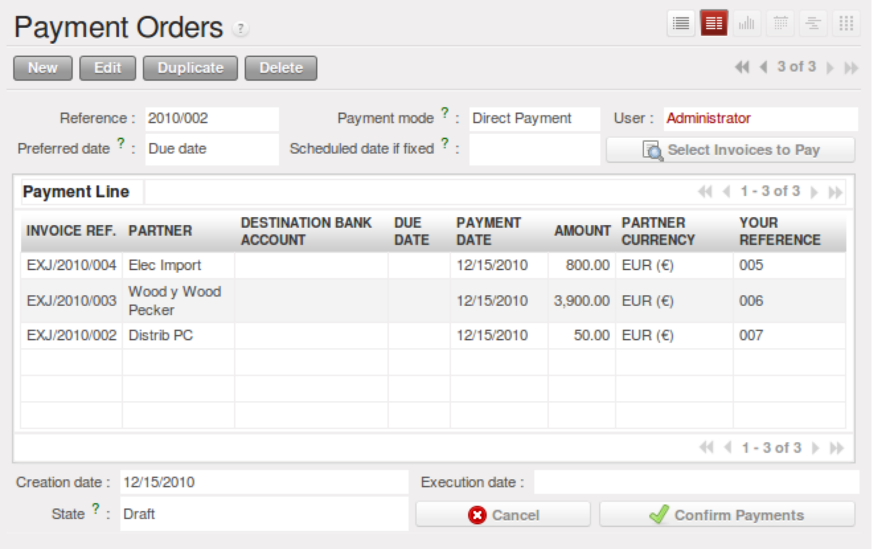
OpenERP then proposes a reference number for your payment order.

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,



Reference : 2010/002
Payment mode ? : Direct Payment
User : Administrator
Preferred date ? : Due date
Scheduled date if fixed ? :

**Payment Line**

| INVOICE REF. | PARTNER | DESTINATION BANK ACCOUNT | DUE DATE | PAYMENT DATE | AMOUNT | PARTNER CURRENCY | YOUR REFERENCE |
|---|---|---|---|---|---|---|---|
| EXJ/2010/004 | Elec Import | | | 12/15/2010 | 800.00 | EUR (€) | 005 |
| EXJ/2010/003 | Wood y Wood Pecker | | | 12/15/2010 | 3,900.00 | EUR (€) | 006 |
| EXJ/2010/002 | Distrib PC | | | 12/15/2010 | 50.00 | EUR (€) | 007 |

Creation date : 12/15/2010
Execution date :
State ? : Draft

Figure 7.2: *Entering a Payment Order*

- `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.

In future versions of OpenERP, it is expected that the system will be able to prepare and print cheques.

As usual, you can change the start point for the payment workflow from the *Administration* → *Customization* → *Workflow* menus.

# From Invoice to Payment

# 8

*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.

**Valuing 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.

**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.

**Multi-company**

There is a choice of methods for integrating OpenERP in a multi-company environment:

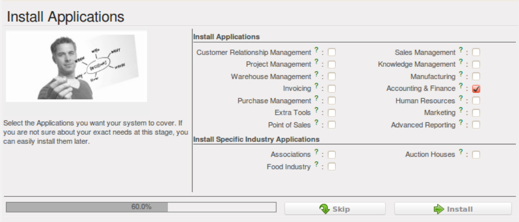
- if the companies hold few documents in common (such as products, or partners - any OpenERP resource), you could install separate databases,
- if the companies share many documents, you can register them in the same database and install OpenERP's multi-company documents to finely manage access rights,
- you can synchronize specified document types in several databases using the `base_synchro` module, which is a shared-funding module rather than a module in the standard open repositories.

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.

**For Accountants**

You can configure the Accounting application using the information given in the configuration wizard.



Install Applications

Select the Applications you want your system to cover. If you are not sure about your exact needs at this stage, you can easily install them later.

**Install Applications**

Customer Relationship Management ? : ☐
Project Management ? : ☐
Warehouse Management ? : ☐
Invoicing ? : ☐
Purchase Management ? : ☐
Extra Tools ? : ☐
Point of Sales ? : ☐
Sales Management ? : ☐
Knowledge Management ? : ☐
Manufacturing ? : ☐
Accounting & Finance ? : ☑
Human Resources ? : ☐
Marketing ? : ☐
Advanced Reporting ? : ☐

**Install Specific Industry Applications**

Associations ? : ☐
Food Industry ? : ☐
Auction Houses ? : ☐

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.

# Financial Analysis 9

*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.

## 9.1 Reporting

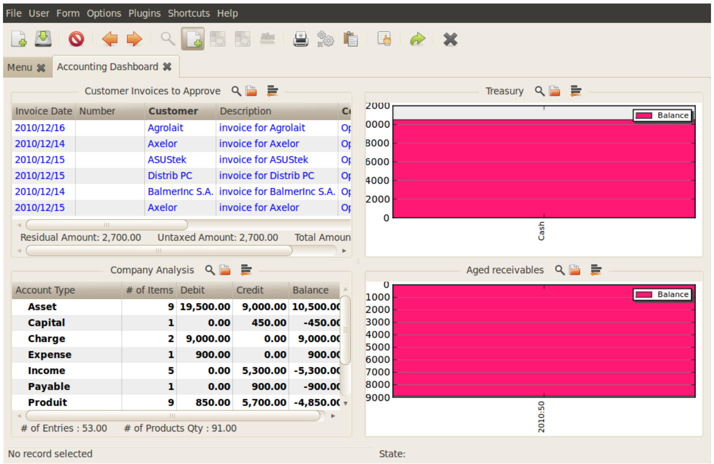
OpenERP provides many tools for managing customer and supplier accounts. You will see here:

- 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.

### 9.1.1 Financial Analysis of Partners

When members of your accounts department sign on to the OpenERP system, they can immediately be presented with the *Accounting Dashboard*. By default, it contains a useful graph for analyzing receivables. Then look at it using the menu *Accounting → Reporting → Dashboard → Accounting Dashboard*.

In the dashboard, the graph at the right entitled *Aged Receivables* represents your receivables week by week. That shows you at a glance the cumulative amount of your customer debtors by week.



Customer Invoices to Approve

| Invoice Date | Number | Customer | Description | C |
|---|---|---|---|---|
| 2010/12/16 | | Agrolait | invoice for Agrolait | Op |
| 2010/12/14 | | Axelor | invoice for Axelor | Op |
| 2010/12/15 | | ASUStek | invoice for ASUStek | Op |
| 2010/12/15 | | Distrib PC | invoice for Distrib PC | Op |
| 2010/12/14 | | BalmerInc S.A. | invoice for BalmerInc S.A. | Op |
| 2010/12/15 | | Axelor | invoice for Axelor | Op |

Residual Amount: 2,700.00 Untaxed Amount: 2,700.00 Total Amoun

Company Analysis

| Account Type | # of Items | Debit | Credit | Balance |
|---|---|---|---|---|
| **Asset** | **9** | **19,500.00** | **9,000.00** | **10,500.0** |
| **Capital** | **1** | **0.00** | **450.00** | **-450.0** |
| **Charge** | **2** | **9,000.00** | **0.00** | **9,000.0** |
| **Expense** | **1** | **900.00** | **0.00** | **900.0** |
| **Income** | **5** | **0.00** | **5,300.00** | **-5,300.0** |
| **Payable** | **1** | **0.00** | **900.00** | **-900.0** |
| **Produit** | **9** | **850.00** | **5,700.00** | **-4,850.0** |

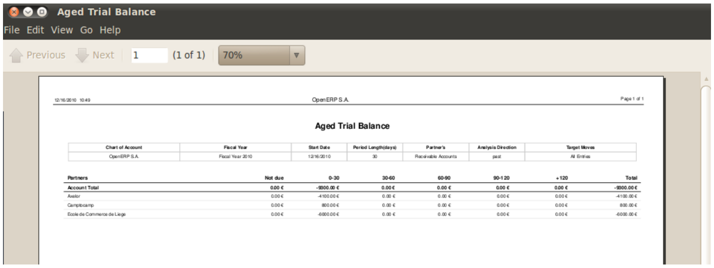
# of Entries : 53.00 # of Products Qty : 91.00

No record selected

Figure 9.1: *Accounting Dashboard*

All of OpenERP's graphs are dynamic. So you can, for example, filter the data by clicking *Zoom* and then *Filter* on the Search form. Or just click on *Zoom* to open in a larger window for a graph, then click *Search* to display this in a list view.

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*.



12/16/2010 10:49 OpenERP S.A. Page 1 of 1

Aged Trial Balance

| Chart of Account | Fiscal Year | Start Date | Period Length(days) | Partner's | Analysis Direction | Target Moves |
|---|---|---|---|---|---|---|
| OpenERP S.A. | Fiscal Year 2010 | 12/16/2010 | 30 | Receivable Accounts | past | All Entries |

| Partners | Not due | 0-30 | 30-60 | 60-90 | 90-120 | +120 | Total |
|---|---|---|---|---|---|---|---|
| **Account Total** | **0.00 €** | **-9300.00 €** | **0.00 €** | **0.00 €** | **0.00 €** | **0.00 €** | **-9300.00 €** |
| Axelor | 0.00 € | -4100.00 € | 0.00 € | 0.00 € | 0.00 € | 0.00 € | -4100.00 € |
| Camptocamp | 0.00 € | 800.00 € | 0.00 € | 0.00 € | 0.00 € | 0.00 € | 800.00 € |
| Ecole de Commerce de Liege | 0.00 € | -6000.00 € | 0.00 € | 0.00 € | 0.00 € | 0.00 € | -6000.00 € |

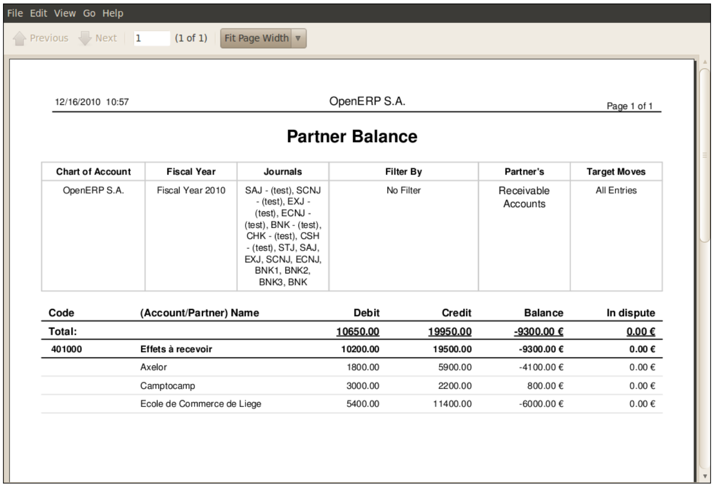
Figure 9.2: *Aged balance using a 30 day period*

When opening that report, OpenERP asks for the name of the company, the fiscal period and the size of the interval to be analyzed (in days). 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.

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 the cumulative credit balance.

If you want detailed information about a partner, you can use the partner ledgers that you reach through the menu *Accounting* → *Reporting* → *Generic Reporting* → *Partners* → *Partner Ledger*.

Finally, you can look up individual account entries by searching for useful information. To search



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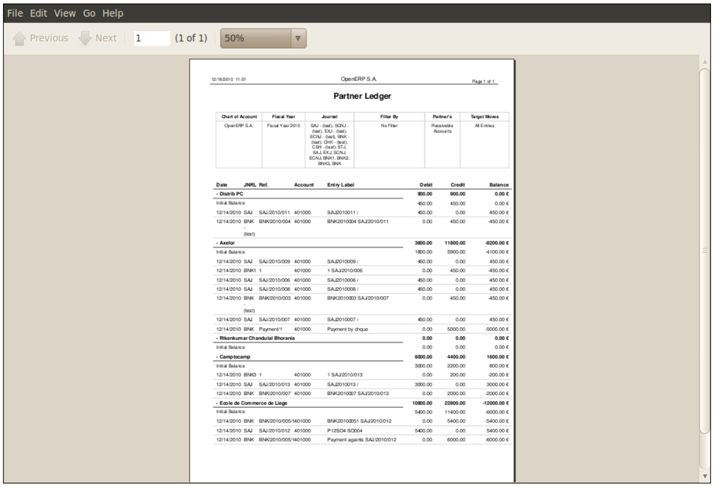
**Partner Balance**

| Chart of Account | Fiscal Year | Journals | Filter By | Partner's | Target Moves |
|---|---|---|---|---|---|
| OpenERP S.A. | Fiscal Year 2010 | SAJ - (test), SCNJ - (test), EXJ - (test), ECNJ - (test), BNK - (test), CHK - (test), CSH - (test), STJ, SAJ, EXJ, SCNJ, ECNJ, BNK1, BNK2, BNK3, BNK | No Filter | Receivable Accounts | All Entries |

| Code | (Account/Partner) Name | Debit | Credit | Balance | In dispute |
|---|---|---|---|---|---|
| **Total:** | | **10650.00** | **19950.00** | **-9300.00 €** | **0.00 €** |
| **401000** | **Effets à recevoir** | **10200.00** | **19500.00** | **-9300.00 €** | **0.00 €** |
| | Axelor | 1800.00 | 5900.00 | -4100.00 € | 0.00 € |
| | Camptocamp | 3000.00 | 2200.00 | 800.00 € | 0.00 € |
| | Ecole de Commerce de Liege | 5400.00 | 11400.00 | -6000.00 € | 0.00 € |

Figure 9.3: *Partner balances*



12/16/2010 11:01 OpenERP S.A. Page 1 of 1

**Partner Ledger**

| Chart of Account | Fiscal Year | Journal | Filter By | Partner's | Target Moves |
|---|---|---|---|---|---|
| OpenERP S.A. | Fiscal Year 2010 | SAJ - (test), SCNJ - (test), EXJ - (test), ECNJ - (test), BNK - (test), CHK - (test), CSH - (test), STJ, SAJ, EXJ, SCNJ, ECNJ, BNK1, BNK2, BNK3, BNK | No Filter | Receivable Accounts | All Entries |

| Date | JNRL | Ref. | Account | Entry Label | Debit | Credit | Balance |
|---|---|---|---|---|---|---|---|
| **- Distrib PC** | | | | | **900.00** | **900.00** | **0.00 €** |
| Initial Balance | | | | | 450.00 | 450.00 | 0.00 € |
| 12/14/2010 | SAJ | SAJ/2010/011 | 401000 | SAJ2010011 / | 450.00 | 0.00 | 450.00 € |
| 12/14/2010 | BNK - (test) | BNK/2010/004 | 401000 | BNK2010004 SAJ/2010/011 | 0.00 | 450.00 | -450.00 € |
| **- Axelor** | | | | | **3600.00** | **11800.00** | **-8200.00 €** |
| Initial Balance | | | | | 1800.00 | 5900.00 | -4100.00 € |
| 12/14/2010 | SAJ | SAJ/2010/009 | 401000 | SAJ2010009 / | 450.00 | 0.00 | 450.00 € |
| 12/14/2010 | BNK1 | 1 | 401000 | 1 SAJ/2010/006 | 0.00 | 450.00 | -450.00 € |
| 12/14/2010 | SAJ | SAJ/2010/006 | 401000 | SAJ2010006 / | 450.00 | 0.00 | 450.00 € |
| 12/14/2010 | SAJ | SAJ/2010/008 | 401000 | SAJ2010008 / | 450.00 | 0.00 | 450.00 € |
| 12/14/2010 | BNK - (test) | BNK/2010/003 | 401000 | BNK2010003 SAJ/2010/007 | 0.00 | 450.00 | -450.00 € |
| 12/14/2010 | SAJ | SAJ/2010/007 | 401000 | SAJ2010007 / | 450.00 | 0.00 | 450.00 € |
| 12/14/2010 | BNK | Payment/1 | 401000 | Payment by chque | 0.00 | 5000.00 | -5000.00 € |
| **- Rikenkumar Chandulal Bhorania** | | | | | **0.00** | **0.00** | **0.00 €** |
| Initial Balance | | | | | 0.00 | 0.00 | 0.00 € |
| **- Camptocamp** | | | | | **6000.00** | **4400.00** | **1600.00 €** |
| Initial Balance | | | | | 3000.00 | 2200.00 | 800.00 € |
| 12/14/2010 | BNK3 | 1 | 401000 | 1 SAJ/2010/013 | 0.00 | 200.00 | -200.00 € |
| 12/14/2010 | SAJ | SAJ/2010/013 | 401000 | SAJ2010013 / | 3000.00 | 0.00 | 3000.00 € |
| 12/14/2010 | BNK | BNK/2010/007 | 401000 | BNK2010007 SAJ/2010/013 | 0.00 | 2000.00 | -2000.00 € |
| **- Ecole de Commerce de Liege** | | | | | **10800.00** | **22800.00** | **-12000.00 €** |
| Initial Balance | | | | | 5400.00 | 11400.00 | -6000.00 € |
| 12/14/2010 | BNK | BNK/2010/005/1 | 401000 | BNK20100051 SAJ/2010/012 | 0.00 | 5400.00 | -5400.00 € |
| 12/14/2010 | SAJ | SAJ/2010/012 | 401000 | P12SO4 SO004 | 5400.00 | 0.00 | 5400.00 € |
| 12/14/2010 | BNK | BNK/2010/005/1 | 401000 | Payment againts SAJ/2010/012 | 0.00 | 6000.00 | -6000.00 € |

Figure 9.4: *Partner ledger*

for account entries, you can use the menu *Accounting → Reporting → Statistic Reports → Entries Analysis*.

**Exporting Entries**

It is helpful to remember that you can export all types of resources in OpenERP. From the web client, you need to navigate to a search list for the resource, then click the *Export* link at the bottom left of the list. From the GTK client, you would use the menu *Form → Export data*. This enables you to easily make your own analysis in Microsoft Excel or OpenOffice.org Calc, by exporting accounting entries.

### 9.1.2 Multi-step Reminders

To automate the management of follow-ups (reminders) you must install the module `account_followup`.

Once the module is installed, configure your levels of follow-up using the menu *Accounting → Configuration → Miscellaneous → Follow-Ups*.

The levels of follow-up are relative to the date of creation of an invoice, and not the due date. This enables you to put payment conditions such as ‘payable in 21 days’ and send a reminder in 30 days, or the converse.

For each level, you should define the number of days and create a note which will automatically be added into the reminder letter. The sequence determines the order of the level in ascending order.

Table 9.1: Example of configuring follow-up levels

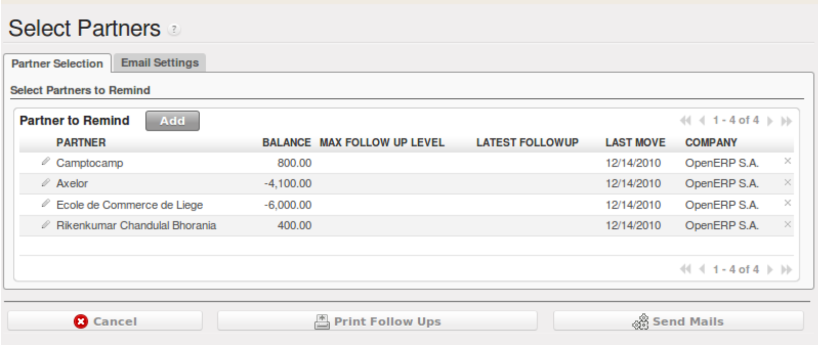
| Sequence | Level | Days | Description |
|---|---|---|---|
| 1 | Level 1 | 15 days net | First payment reminder |
| 2 | Level 2 | 30 days net | Second reminder |
| 3 | Level 3 | 45 days from end of month | Put on notice |

You can send your reminders by mail and/or email with the menu *Accounting → Periodical Processing → Billing → Send followups*.

OpenERP presents you with a list of partners who are due to be reminded, which you can modify before starting the procedure. On the second tab of the form, you can supply the information you will send in the email reminder.

The system then gives you a PDF report with all of the reminder letters for each partner. Each letter is produced in the language of the partner (if that is available), and you can therefore get letters in several languages in the same PDF on several pages.

You should check the due date of customers and/or suppliers before starting the reminder procedure. You get a list of unreconciled entries’ accounts. You can then modify the date, the last follow-up and the level of reminder for each entry.


Select Partners
Partner Selection
Email Settings
Add
1 - 4 of 4
Cancel
Print Follow Ups
Send Mails

Select Partners to Remind

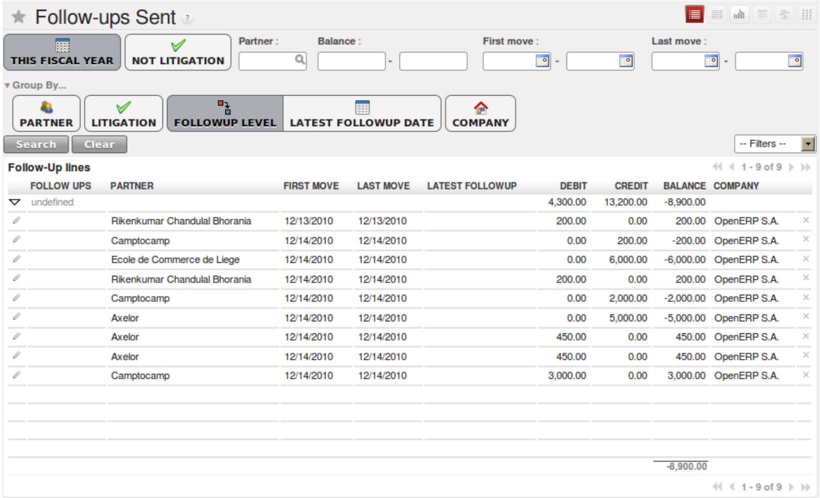
Partner to Remind

| PARTNER | BALANCE | MAX FOLLOW UP LEVEL | LATEST FOLLOWUP | LAST MOVE | COMPANY |
|---|---|---|---|---|---|
| Camptocamp | 800.00 | | | 12/14/2010 | OpenERP S.A. |
| Axelor | -4,100.00 | | | 12/14/2010 | OpenERP S.A. |
| Ecole de Commerce de Liege | -6,000.00 | | | 12/14/2010 | OpenERP S.A. |
| Rikenkumar Chandulal Bhorania | 400.00 | | | 12/14/2010 | OpenERP S.A. |

Figure 9.5: *Form for preparing follow-up letters*

To obtain a detailed statistical report of sent follow-ups use the menus in *Accounting* → *Reporting* → *Generic Reporting* → *Partners* → *Follow-ups Sent*.

The different reports are standard OpenERP screens, so you can filter them and explore the elements in detail.


Follow-ups Sent
THIS FISCAL YEAR
NOT LITIGATION
Partner :
Balance :
First move :
Last move :
Group By...
PARTNER
LITIGATION
FOLLOWUP LEVEL
LATEST FOLLOWUP DATE
COMPANY
Search
Clear
-- Filters --
1 - 9 of 9

Follow-Up lines

| FOLLOW UPS | PARTNER | FIRST MOVE | LAST MOVE | LATEST FOLLOWUP | DEBIT | CREDIT | BALANCE | COMPANY |
|---|---|---|---|---|---|---|---|---|
| undefined | | | | | 4,300.00 | 13,200.00 | -8,900.00 | |
| | Rikenkumar Chandulal Bhorania | 12/13/2010 | 12/13/2010 | | 200.00 | 0.00 | 200.00 | OpenERP S.A. |
| | Camptocamp | 12/14/2010 | 12/14/2010 | | 0.00 | 200.00 | -200.00 | OpenERP S.A. |
| | Ecole de Commerce de Liege | 12/14/2010 | 12/14/2010 | | 0.00 | 6,000.00 | -6,000.00 | OpenERP S.A. |
| | Rikenkumar Chandulal Bhorania | 12/14/2010 | 12/14/2010 | | 200.00 | 0.00 | 200.00 | OpenERP S.A. |
| | Camptocamp | 12/14/2010 | 12/14/2010 | | 0.00 | 2,000.00 | -2,000.00 | OpenERP S.A. |
| | Axelor | 12/14/2010 | 12/14/2010 | | 0.00 | 5,000.00 | -5,000.00 | OpenERP S.A. |
| | Axelor | 12/14/2010 | 12/14/2010 | | 450.00 | 0.00 | 450.00 | OpenERP S.A. |
| | Axelor | 12/14/2010 | 12/14/2010 | | 450.00 | 0.00 | 450.00 | OpenERP S.A. |
| | Camptocamp | 12/14/2010 | 12/14/2010 | | 3,000.00 | 0.00 | 3,000.00 | OpenERP S.A. |
| | | | | | | | -8,900.00 | |

Figure 9.6: *Summary screen for follow-ups*

### 9.1.3 Partner Information

In daily use of OpenERP, a manager will often need to search quickly for financial information amongst partner data. For this, she can use the links to the right of the partner form when she opens it, to go directly to:

- a follow-up letter from the *Overdue payments* Report button,

- the list of open *Invoices*,
- a shortcut to *Journal Items*,
- the unclosed CRM requests from *Open cases*,
- a shortcut to the unreconciled *Receivables and Payables*.

The exact links depend on the modules that are installed in OpenERP.

These links are also available to her using the navigation features, such as right-clicking partner fields in the web and GTK client.

The *Overdue payments* report produces a PDF document which is used for follow-up but it does not modify any of the partner's accounting entries. Its use does not increase the follow-up level so you can run this report repeatedly without any problem.

In OpenERP you can search for a partner on the basis of the value of his trade receivables. So search for partners with a credit amount between 1 and 99999999 and you will get a list of partners that owe you payment. You can then select the whole list and print follow-up letters for them all.

To the right of the partner form there is a shortcut to *Invoices*. This link includes all of the invoices defined in the systems, namely:

- customer invoices,
- supplier invoices,
- credit notes,
- supplier credit notes.

**Reminders from Accounting Entries**

Companies that do not have computerized records tend to keep track of payments from invoices and paperwork and not from a formal partner account.

It is better to create reminder letters from a partner's account receivable than from unpaid bills, however. By using the OpenERP system, you can easily take account of all advances, unreconciled payments, credit notes and credit payments.

So it is better to send a letter based on the accounting entries of invoices and unreconciled payments than just on a list of unpaid invoices.

In the links appearing on the partner form, two buttons enable the opening of partner accounting entries:

- *Journal Items*,
- *Receivables & Payables*.

The first button is useful for obtaining a historical analysis of the customer or supplier. You can get information about such significant items as sales volume and payment delays. The second button is a filter which shows only the open trade credits and debits for the partner.

## 9.2 Statutory Taxes and Chart of Accounts

This section deals with statutory taxes and accounts which are legally required from the company:

- the taxation structure provided by OpenERP,
- the accounts ledgers,
- account balance (used to produce the income statement and balance sheet),
- the different journals (general, centralized and detailed),
- the tax declaration.

> **Other Declarations**
>
> In addition to the legal declarations available in the accounts modules, OpenERP supplies declarations based on the functionality in other modules. You can, for example, install the `report_intrastat` module for intra-stat declarations about sending goods to and receiving goods from other countries.

### 9.2.1 Taxation

You can attach taxes to financial transactions so that you can:

- add taxes to the amount that you pay or get paid,
- report on the taxes in various categories that you should pay the tax authorities,
- track taxes in your general accounts,
- manage the payment and refund of taxes using the same mechanisms that OpenERP uses for other monetary transactions.

Since the detailed tax structure is a mechanism for carrying out governments' policies, and the collecting of taxes so critical to their authorities, tax requirements and reporting can be complex. OpenERP has a flexible mechanism for handling taxation that can be configured through its GUI or through data import mechanisms to meet the requirements of many various tax jurisdictions.

The taxation mechanism can also be used to handle other tax-like financial transactions, such as royalties to authors based on the value of transactions through an account.

#### Setting up a Tax Structure

Setup taxation using *Accounting* → *Configuration* → *Financial Accounting* → *Taxes* → *Taxes*.

Three main objects are involved in the tax system in OpenERP:

- a *Tax Case* (or *Tax Code*), used for tax reporting, that can be set up in a hierarchical structure so that multiple codes can be formed into trees in the same way as a Chart of Accounts.

- a *Tax*, the basic tax object that contains the rules for calculating tax on the financial transaction it is attached to, and is linked to the General Accounts and to the Tax Cases. A tax can contain multiple child taxes and base its calculation on those taxes rather than the base transaction, providing considerable flexibility. Each tax belongs to a *Tax Group* (currently just `VAT` or `Other` ).

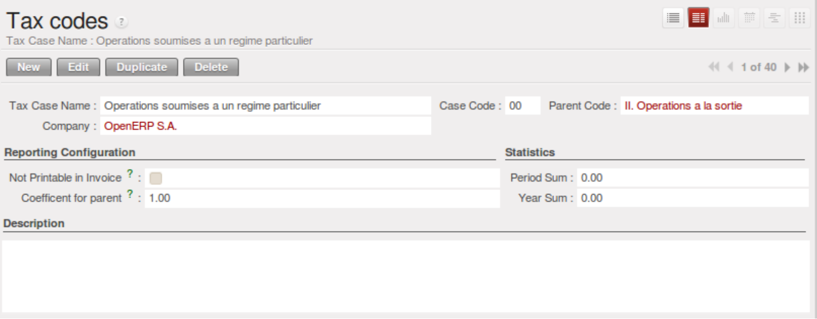
- the *General Accounts*, that record the taxes owing and paid. Since the general accounts are discussed elsewhere in this part of the book and are not tax-specific, they will not be detailed in this section.

You can attach zero or more *Supplier Tax* and *Customer Tax* items to products, so that you can account separately for purchase and sales taxes (or Input and Output VAT – where VAT is Value Added Tax). Because you can attach more than one tax, you can handle a VAT or Sales Tax separately from an Eco Tax on the same product.

### Your Tax Declaration

Tax Cases are also known in OpenERP as Tax Codes. They are used for tax reporting, and can be set up in a hierarchical structure to form trees in the same way as a Chart of Accounts.

To create a new Tax Case, use the menu *Accounting* → *Configuration* → *Financial Accounting* → *Taxes* → *Tax codes*. You define the following fields:



Tax codes

Tax Case Name : Operations soumises a un regime particulier

Tax Case Name : Operations soumises a un regime particulier

Case Code : 00

Parent Code : II. Operations a la sortie

Company : OpenERP S.A.

Reporting Configuration

Not Printable in Invoice ? : ☐

Coefficent for parent ? : 1.00

Statistics

Period Sum : 0.00

Year Sum : 0.00

Description

Figure 9.7: *Definition of Tax Code*

- *Tax Case Name* : a unique name required to identify the Case,

- *Case Code* : an optional short code for the case,

- *Parent Code* : a link to a parent Tax Case that forms the basis of the tree structure like a Chart of Accounts,

- *Coefficent for parent* : choose `1.00` to add the total to the parent account or `-1.00` to subtract it,

- *Description* : a free text field for documentation purposes.

You can also see two read-only fields:

- *Year Sum* : a single figure showing the total accumulated on this case for the financial year.
- *Period Sum* : a single figure showing the total accumulated on this case for the current financial period (perhaps 1 month or 3 months).

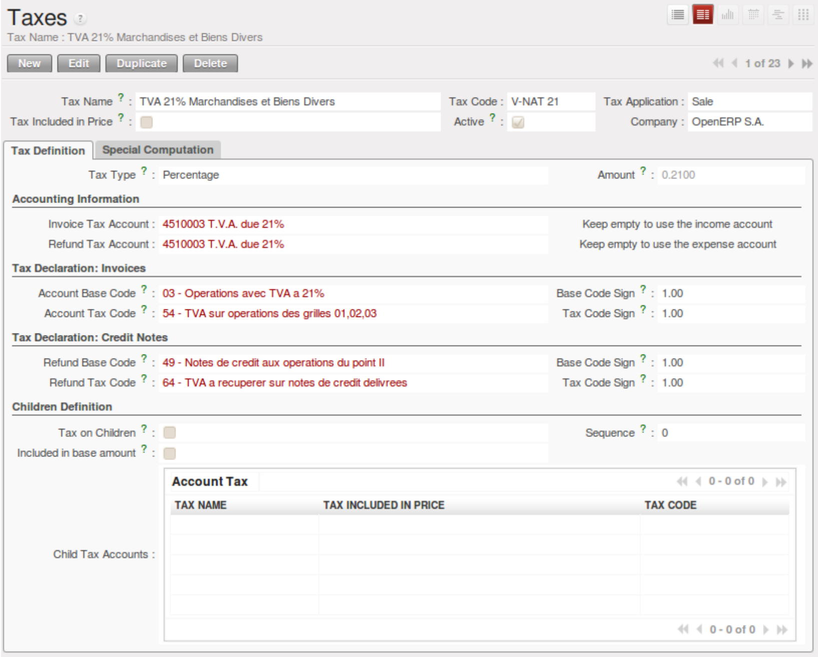
You will probably need to create two tax cases for each different tax rate that you have to define, one for the tax itself and one for the invoice amount that the tax is based on. And you will create tax cases that you will not link to Tax objects (similar to General Account `View` types) just to organize the tree structure.

To view the structure that you have constructed, you can use the menu *Accounting* → *Charts* → *Chart of Taxes*. This tree view reflects the structure of the *Tax Cases* and shows the current tax situation.

### Define Taxes

Tax objects calculate tax on the financial transactions that they are attached to, and are linked to the General Accounts and to the Tax Cases.

To create a new Tax Case, use the menu *Accounting* → *Configuration* → *Financial Accounting* → *Taxes* → *Taxes*.



Tax Name : TVA 21% Marchandises et Biens Divers

Tax Name : TVA 21% Marchandises et Biens Divers
Tax Code : V-NAT 21
Tax Application : Sale
Tax Included in Price : ☐
Active : ☑
Company : OpenERP S.A.

Tax Type : Percentage
Amount : 0.2100

**Accounting Information**

Invoice Tax Account : 4510003 T.V.A. due 21%
Keep empty to use the income account
Refund Tax Account : 4510003 T.V.A. due 21%
Keep empty to use the expense account

**Tax Declaration: Invoices**

Account Base Code : 03 - Operations avec TVA a 21%
Base Code Sign : 1.00
Account Tax Code : 54 - TVA sur operations des grilles 01,02,03
Tax Code Sign : 1.00

**Tax Declaration: Credit Notes**

Refund Base Code : 49 - Notes de credit aux operations du point II
Base Code Sign : 1.00
Refund Tax Code : 64 - TVA a recuperer sur notes de credit delivrees
Tax Code Sign : 1.00

**Children Definition**

Tax on Children : ☐
Sequence : 0
Included in base amount : ☐

Child Tax Accounts :

| TAX NAME | TAX INCLUDED IN PRICE | TAX CODE |
|---|---|---|

Figure 9.8: *Definition of Tax*

You define the following fields:

- *Tax Name* : a unique name required for this tax (such as `12% Sales VAT` ),
- *Tax Type* : a required field directing how to calculate the tax: `Percentage`, `Fixed Amount`, `None`, `Balance` or `Python Code`, (the latter is found in the *Compute Code* field in the *Special Computation* tab),
- *Applicability* : a required field that indicates whether the base amount should be used unchanged (when the value is `Always` ) or whether it should be processed by Python Code in the *Applicable Code* field in the *Special Computation* tab when the value is `Given by Python Code` ),
- *Amount* : a required field whose meaning depends on the Tax Type, being a multiplier on the base amount when the *Tax Type* is `Percentage` , and a fixed amount added to the base amount when the *Tax Type* is `Fixed Amount` ,
- *Include in base amount* : when checked, the tax is added to the base amount and not shown separately,
- *Domain* : is only used in special developments, not in the core OpenERP system,
- *Invoice Tax Account* :a General Account used to record invoiced tax amounts, which may be the same for several taxes or split so that one tax is allocated to one account,
- *Refund Tax Account* : a General Account used to record invoiced tax refunds, which may be the same as the Invoice Tax Account or, in some tax jurisdictions, must be separated,
- *Tax on Children* : when checked, the tax calculation is applied to the output from other tax calculations specified in the *Child Tax Accounts* field (so you can have taxes on taxes), otherwise the calculation is applied to the base amount on the transaction,
- *Tax included in Price* : when checked, the total value shown includes this tax,
- *Tax Application* : selects whether the tax is applicable to `Sale`, `Purchase` or `All` transactions,
- *Child Tax Accounts* : other tax accounts that can be used to supply the figure for taxation.

> **Using Child Taxes**
>
> You can use child taxes when you have a complex tax situation that you want to hide from your end users. For example, you might define a motor mileage expenses product with a composite tax made up of two child taxes – a non-reclaimable private element and a reclaimable business element (which is the case in some European countries).
>
> When your staff come to claim motor mileage, they do not need to know about this taxation, but the accounting impact of their claim will be automatically managed in OpenERP.

The fields above apply the taxes that you specify and record them in the general accounts, but do not provide you with the documentation that your tax authorities might need. For this, use the *Tax Definition* tab to define which Tax Cases should be used for this tax:

- *Account Base Code* : tax case to record the invoiced amount that the tax is based on,
- *Account Tax Code* : tax case to record the invoiced tax amount,
- *Refund Base Code* : tax case to record the refund invoice amount that the tax is based on,
- *Refund Tax Code* : tax case to record the refund invoice tax amount.

### Taxes on Products and Accounts

When you have created a tax structure consisting of Tax Cases and Tax objects, you can use the taxes in your various business objects so that financial transactions can be associated with taxes and tax-like charges.

**Retail Customers**

When you are retailing to end users rather than selling to a business, you may want to (or be required to) show tax-inclusive prices on your invoicing documents rather than a tax-exclusive price plus tax.

You can assign multiple taxes to a Product. Assuming you have set up the appropriate taxes, you would use the menu *Sales* → *Products* → *Products* to open and edit a Product definition, then:

- select one or more *Sale Taxes* for any products that you might sell, which may include a `Sales Tax` or `Output VAT` , and a `Sales Eco Tax` ,
- select one or more *Purchase Taxes* for any products that you might purchase, which may include a `Purchase Tax` or `Input VAT` , and a `Purchase Eco Tax` .

Generally, when you make a purchase or sale, the taxes assigned to the product are used to calculate the taxes owing or owed.

**Tax Regions**

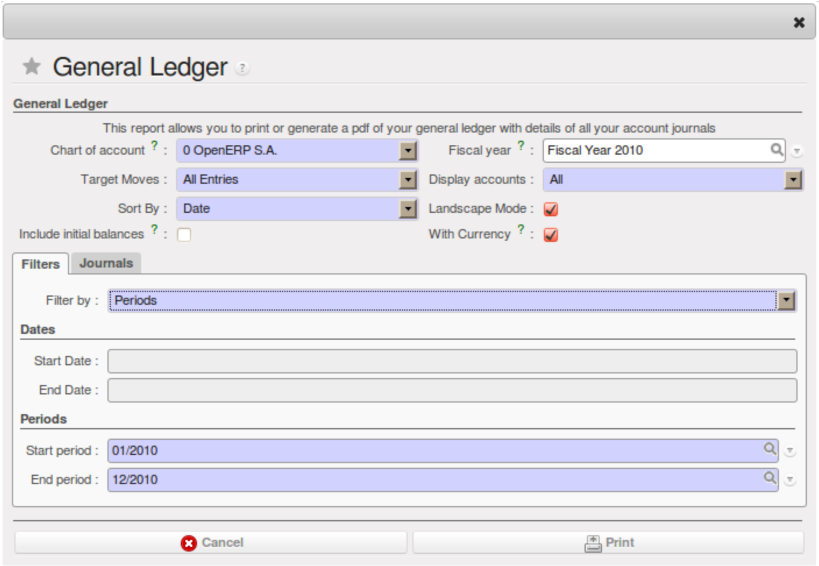
The third-party module `import_export` (currently in `extra-addons`) can be used to extend OpenERP's tax system, so that you can assign taxes to different accounts depending on the location of the Partner. The *Partner* is given a new *Partner Location* field that can be set to `Local`, `Europe` or `Outside`, so that taxes and tax bases can be channelled to different accounts.

This module could be the basis of more ambitious location-based tax accounting.

And you can assign multiple taxes to an account, so that when you transfer money through the account you attract a tax amount. In such a case, this 'tax' may not be legally-required taxation but something tax-like, for example, authors' royalties or sales commission.

## 9.2.2 General Ledger and Trial Balance

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.



General Ledger

**General Ledger**

This report allows you to print or generate a pdf of your general ledger with details of all your account journals

Chart of account ? : 0 OpenERP S.A.

Fiscal year ? : Fiscal Year 2010

Target Moves : All Entries

Display accounts : All

Sort By : Date

Landscape Mode : ☑

Include initial balances ? : ☐

With Currency ? : ☑

Filter by : Periods

**Dates**

Start Date :

End Date :

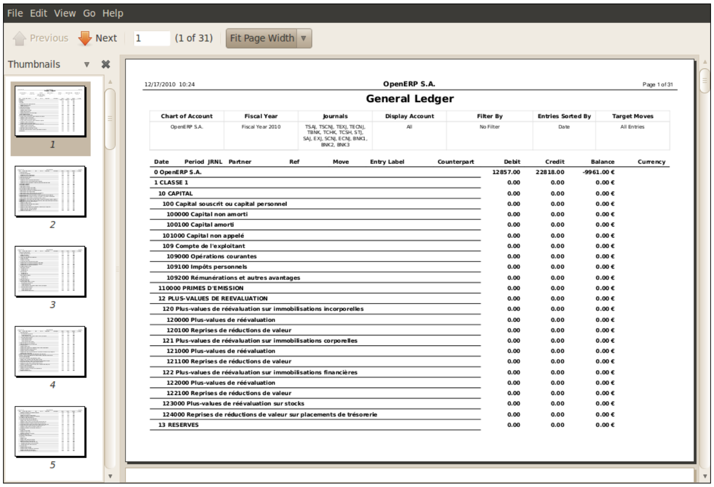
**Periods**

Start period : 01/2010

End period : 12/2010

Figure 9.9: *Wizard for selecting the specific entries in report*

Select the proper options and journal(s) from the above wizard to print the *General Ledger*.



12/17/2010 10:24 OpenERP S.A. Page 1 of 31

**General Ledger**

| Chart of Account | Fiscal Year | Journals | Display Account | Filter By | Entries Sorted By | Target Moves |
|---|---|---|---|---|---|---|
| OpenERP S.A. | Fiscal Year 2010 | TSAJ, TSCNJ, TEXJ, TECNJ, TBNK, TCHK, TCSH, STJ, SAJ, EXJ, SCNJ, ECNJ, BNK1, BNK2, BNK3 | All | No Filter | Date | All Entries |

| Date | Period | JRNL | Partner | Ref | Move | Entry Label | Counterpart | Debit | Credit | Balance | Currency |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 OpenERP S.A. | | | | | | | | 12857.00 | 22818.00 | -9961.00 € | |
| 1 CLASSE 1 | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 10 CAPITAL | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 100 Capital souscrit ou capital personnel | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 100000 Capital non amorti | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 100100 Capital amorti | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 101000 Capital non appelé | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 109 Compte de l'exploitant | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 109000 Opérations courantes | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 109100 Impôts personnels | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 109200 Rémunérations et autres avantages | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 110000 PRIMES D'EMISSION | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 12 PLUS-VALUES DE REEVALUATION | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 120 Plus-values de réévaluation sur immobilisations incorporelles | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 120000 Plus-values de réévaluation | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 120100 Reprises de réductions de valeur | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 121 Plus-values de réévaluation sur immobilisations corporelles | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 121000 Plus-values de réévaluation | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 121100 Reprises de réductions de valeur | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 122 Plus-values de réévaluation sur immobilisations financières | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 122000 Plus-values de réévaluation | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 122100 Reprises de réductions de valeur | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 123000 Plus-values de réévaluation sur stocks | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 124000 Reprises de réductions de valeur sur placements de trésorerie | | | | | | | | 0.00 | 0.00 | 0.00 € | |
| 13 RESERVES | | | | | | | | 0.00 | 0.00 | 0.00 € | |

Figure 9.10: *General Ledger*

**Simulated Balance**

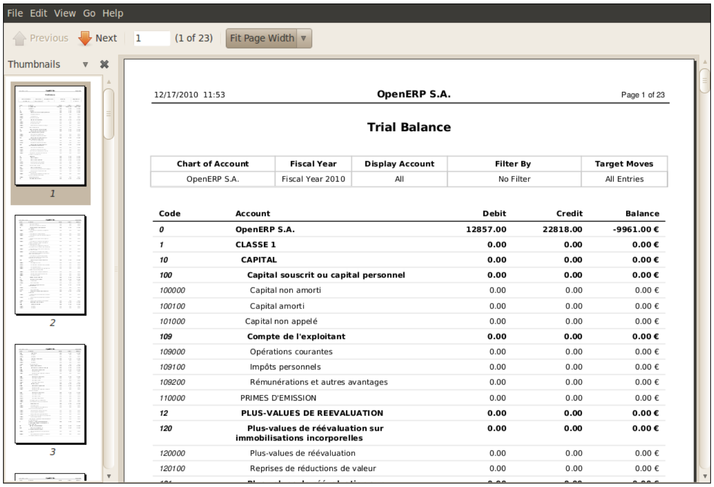
While you are printing account balances, if you have installed the `account_simulation` module from `extra-addons`, OpenERP asks you which level of simulation to execute.

Results will vary depending on the level selected. You could, for example, print the balance depending on various methods of amortization:

- the normal IFRS method,
- the French method.

More generally, it enables you to make analyses using other simulation levels that you could expect.

To print the *Trial Balance*, you can use this 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.



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**Trial Balance**

| Chart of Account | Fiscal Year | Display Account | Filter By | Target Moves |
|---|---|---|---|---|
| OpenERP S.A. | Fiscal Year 2010 | All | No Filter | All Entries |

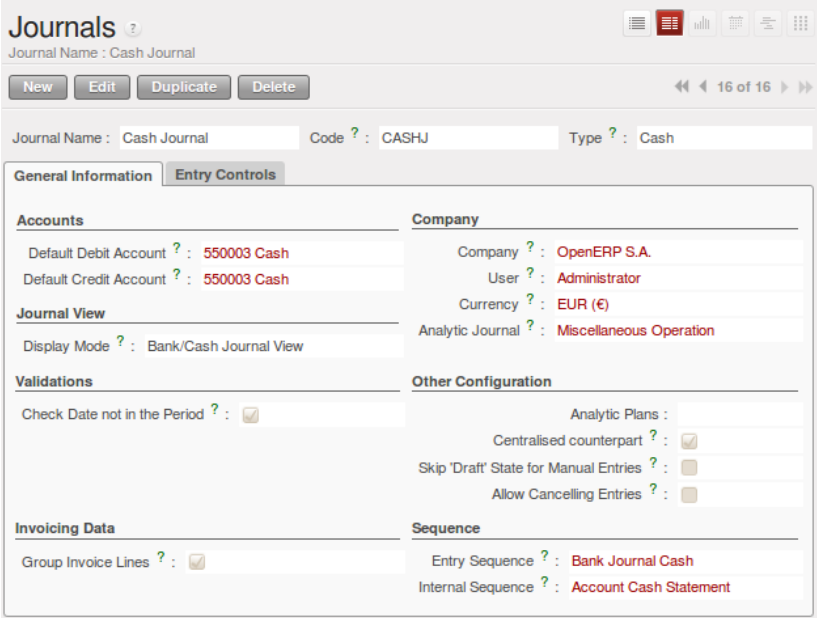
| Code | Account | Debit | Credit | Balance |
|---|---|---|---|---|
| **0** | **OpenERP S.A.** | **12857.00** | **22818.00** | **-9961.00 €** |
| **1** | **CLASSE 1** | **0.00** | **0.00** | **0.00 €** |
| **10** | **CAPITAL** | **0.00** | **0.00** | **0.00 €** |
| **100** | **Capital souscrit ou capital personnel** | **0.00** | **0.00** | **0.00 €** |
| 100000 | Capital non amorti | 0.00 | 0.00 | 0.00 € |
| 100100 | Capital amorti | 0.00 | 0.00 | 0.00 € |
| 101000 | Capital non appelé | 0.00 | 0.00 | 0.00 € |
| **109** | **Compte de l'exploitant** | **0.00** | **0.00** | **0.00 €** |
| 109000 | Opérations courantes | 0.00 | 0.00 | 0.00 € |
| 109100 | Impôts personnels | 0.00 | 0.00 | 0.00 € |
| 109200 | Rémunérations et autres avantages | 0.00 | 0.00 | 0.00 € |
| 110000 | PRIMES D'EMISSION | 0.00 | 0.00 | 0.00 € |
| **12** | **PLUS-VALUES DE REEVALUATION** | **0.00** | **0.00** | **0.00 €** |
| **120** | **Plus-values de réévaluation sur immobilisations incorporelles** | **0.00** | **0.00** | **0.00 €** |
| 120000 | Plus-values de réévaluation | 0.00 | 0.00 | 0.00 € |
| 120100 | Reprises de réductions de valeur | 0.00 | 0.00 | 0.00 € |

Figure 9.11: *Trial Balance*

You can print the *General Ledger* and *Trial Balance* report directly from the *Account* form also.

## 9.2.3 The Accounting Journals

To configure the different journals use the menu *Accounting* → *Configuration* → *Financial Accounting* → *Journals* → *Journals*.



**Journals**

Journal Name : Cash Journal

Journal Name : Cash Journal
Code : CASHJ
Type : Cash

**General Information** | Entry Controls

**Accounts**

Default Debit Account : 550003 Cash
Default Credit Account : 550003 Cash

**Journal View**

Display Mode : Bank/Cash Journal View

**Validations**

Check Date not in the Period : ☑

**Invoicing Data**

Group Invoice Lines : ☑

**Company**

Company : OpenERP S.A.
User : Administrator
Currency : EUR (€)
Analytic Journal : Miscellaneous Operation

**Other Configuration**

Analytic Plans :
Centralised counterpart : ☑
Skip 'Draft' State for Manual Entries : ☐
Allow Cancelling Entries : ☐

**Sequence**

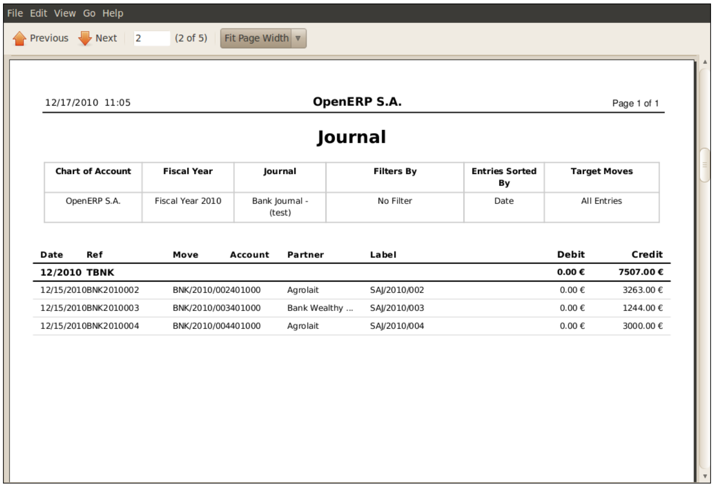
Entry Sequence : Bank Journal Cash
Internal Sequence : Account Cash Statement

Figure 9.12: *Definition of the journal*

> **Journals**
>
> Note that there are different types of journals in OpenERP:
>
> - accounting journals (detailed in this chapter),
> - purchase journals (for distributing supplies provided on certain dates),
> - sales journals (for example, classifying sales by their type of trade),
> - the invoice journals (to classify sales by mode of invoicing - daily / weekly / monthly - and automating the tasks.
>
> To get access to these different journals install the modules `sale_journal` (found at the time of writing in `addons`, so available in a standard installation) and `purchase_journal` (found in `extra-addons` at the time of writing, so needing special installation).

OpenERP provide three main reports regarding the journals:

- To print *Journals*, use the menu *Accounting* → *Reporting* → *Legal Reports* → *Journals* → *Journals*.



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**Journal**

| Chart of Account | Fiscal Year | Journal | Filters By | Entries Sorted By | Target Moves |
|---|---|---|---|---|---|
| OpenERP S.A. | Fiscal Year 2010 | Bank Journal - (test) | No Filter | Date | All Entries |

| Date | Ref | Move | Account | Partner | Label | Debit | Credit |
|---|---|---|---|---|---|---|---|
| **12/2010** | **TBNK** | | | | | **0.00 €** | **7507.00 €** |
| 12/15/2010 | BNK2010002 | BNK/2010/002 | 401000 | Agrolait | SAJ/2010/002 | 0.00 € | 3263.00 € |
| 12/15/2010 | BNK2010003 | BNK/2010/003 | 401000 | Bank Wealthy ... | SAJ/2010/003 | 0.00 € | 1244.00 € |
| 12/15/2010 | BNK2010004 | BNK/2010/004 | 401000 | Agrolait | SAJ/2010/004 | 0.00 € | 3000.00 € |

Figure 9.13: *Printing a journal*

- To print *General Journals*, use the menu *Accounting* → *Reporting* → *Legal Reports* → *Journals* → *General Journals*.
- To print *Centralizing Journal*, use the menu *Accounting* → *Reporting* → *Legal Reports* → *Journals* → *Centralizing Journal*.

### 9.2.4 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 information from the accounting entries in the columns to the right.

OpenERP keeps a tax chart that you can reach from the menu *Accounting* → *Charts* → *Chart of Accounts*. The structure of the chart is for calculating the tax declaration, but all the other taxes can be calculated also(such as the French DEEE).

The tax chart represents the amount of each area of the tax 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.

Each accounting entry can then be linked to one of the tax accounts. This association is done automatically by the taxes which had previously been configured in the invoice lines.

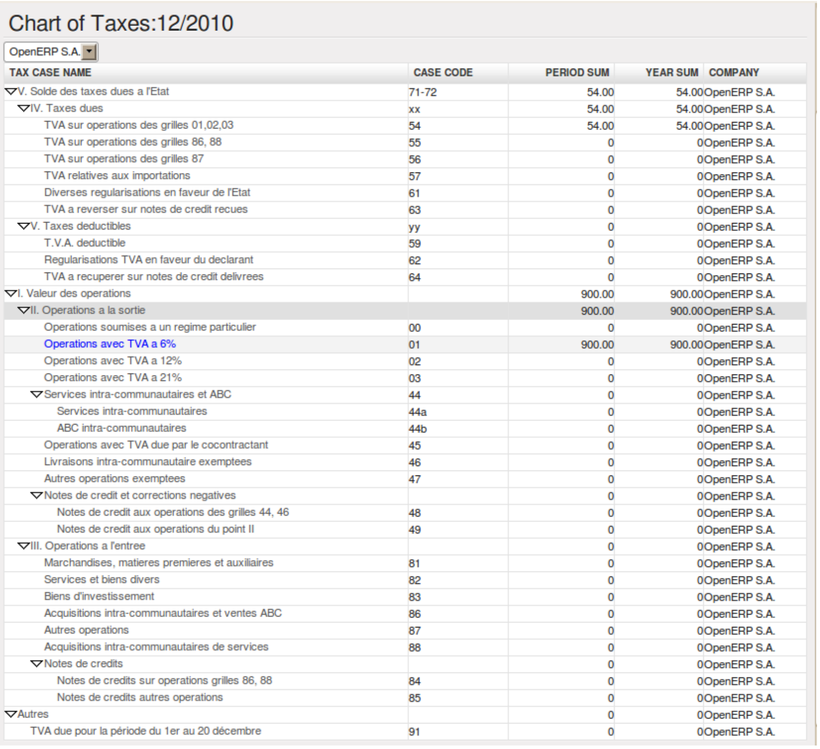


Chart of Taxes:12/2010

OpenERP S.A.

| TAX CASE NAME | CASE CODE | PERIOD SUM | YEAR SUM | COMPANY |
|---|---|---|---|---|
| ▽V. Solde des taxes dues a l'Etat | 71-72 | 54.00 | 54.00 | OpenERP S.A. |
| ▽IV. Taxes dues | xx | 54.00 | 54.00 | OpenERP S.A. |
| TVA sur operations des grilles 01,02,03 | 54 | 54.00 | 54.00 | OpenERP S.A. |
| TVA sur operations des grilles 86, 88 | 55 | 0 | 0 | OpenERP S.A. |
| TVA sur operations des grilles 87 | 56 | 0 | 0 | OpenERP S.A. |
| TVA relatives aux importations | 57 | 0 | 0 | OpenERP S.A. |
| Diverses regularisations en faveur de l'Etat | 61 | 0 | 0 | OpenERP S.A. |
| TVA a reverser sur notes de credit recues | 63 | 0 | 0 | OpenERP S.A. |
| ▽V. Taxes deductibles | yy | 0 | 0 | OpenERP S.A. |
| T.V.A. deductible | 59 | 0 | 0 | OpenERP S.A. |
| Regularisations TVA en faveur du declarant | 62 | 0 | 0 | OpenERP S.A. |
| TVA a recuperer sur notes de credit delivrees | 64 | 0 | 0 | OpenERP S.A. |
| ▽I. Valeur des operations | | 900.00 | 900.00 | OpenERP S.A. |
| ▽II. Operations a la sortie | | 900.00 | 900.00 | OpenERP S.A. |
| Operations soumises a un regime particulier | 00 | 0 | 0 | OpenERP S.A. |
| Operations avec TVA a 6% | 01 | 900.00 | 900.00 | OpenERP S.A. |
| Operations avec TVA a 12% | 02 | 0 | 0 | OpenERP S.A. |
| Operations avec TVA a 21% | 03 | 0 | 0 | OpenERP S.A. |
| ▽Services intra-communautaires et ABC | 44 | 0 | 0 | OpenERP S.A. |
| Services intra-communautaires | 44a | 0 | 0 | OpenERP S.A. |
| ABC intra-communautaires | 44b | 0 | 0 | OpenERP S.A. |
| Operations avec TVA due par le cocontractant | 45 | 0 | 0 | OpenERP S.A. |
| Livraisons intra-communautaire exemptees | 46 | 0 | 0 | OpenERP S.A. |
| Autres operations exemptees | 47 | 0 | 0 | OpenERP S.A. |
| ▽Notes de credit et corrections negatives | | 0 | 0 | OpenERP S.A. |
| Notes de credit aux operations des grilles 44, 46 | 48 | 0 | 0 | OpenERP S.A. |
| Notes de credit aux operations du point II | 49 | 0 | 0 | OpenERP S.A. |
| ▽III. Operations a l'entree | | 0 | 0 | OpenERP S.A. |
| Marchandises, matieres premieres et auxiliaires | 81 | 0 | 0 | OpenERP S.A. |
| Services et biens divers | 82 | 0 | 0 | OpenERP S.A. |
| Biens d'investissement | 83 | 0 | 0 | OpenERP S.A. |
| Acquisitions intra-communautaires et ventes ABC | 86 | 0 | 0 | OpenERP S.A. |
| Autres operations | 87 | 0 | 0 | OpenERP S.A. |
| Acquisitions intra-communautaires de services | 88 | 0 | 0 | OpenERP S.A. |
| ▽Notes de credits | | 0 | 0 | OpenERP S.A. |
| Notes de credits sur operations grilles 86, 88 | 84 | 0 | 0 | OpenERP S.A. |
| Notes de credits autres operations | 85 | 0 | 0 | OpenERP S.A. |
| ▽Autres | | 0 | 0 | OpenERP S.A. |
| TVA due pour la période du 1er au 20 décembre | 91 | 0 | 0 | OpenERP S.A. |

Figure 9.14: *Example of a Belgian TVA (VAT) declaration*

**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 different general accounts depending on the type of sale and type of tax,
- you can restructure your chart of taxes as you need.

At any time, you can check your chart of taxes for a given period using the report *Accounting* → *Reporting* → *Generic Reporting* → *Taxes* → *Taxes Report*.

This 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 on 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 inter-community trade or for a charity.

In some countries, tax can be calculated on the basis of payments received rather than invoices sent. In this instance, choose `Payments` instead of `Invoices` in the *Based On* field. Even if you make your declaration on the basis of invoices sent and received, it can be helpful to compare the two reports to see the amount of tax that you pay but have not yet received from your customers.

## 9.3 Company Financial Analysis

You will see here the analysis tools for your company's financial situation, in particular:

- Management Indicators
- Budgets
- The Accounting Dashboard

### 9.3.1 Management Indicators

> **Financial Indicators**
>
> Indicators, sometimes called financial ratios, are tools for analyzing a company's finances. They enable you to compare two accounts or sets of accounts from the balance sheet or the profit and loss account, in the form of a ratio. They also let you measure the financial health of a company, and make comparisons from one year to the next or against those of other companies.

To define financial indicators in OpenERP, you should install the module `account_report` (from `extra-addons`). When installing the module, the usual financial indicators are registered in OpenERP.

You can consult your indicators, calculated in real time, from the menu *Accounting* → *Reporting* → *Generic Reporting* → *Reporting* → *Custom reporting*.

Indicators defined by default in OpenERP are the following:

- *Indicators of Working Capital* : determines if the company can pay its short term debts in normal conditions. It is calculated from `(Stocks + Cash + Current Assets) / Current Liabilities`.
- *Financial Ratios* : enables you to calculate the company's liquidity. It is defined as follows: `( Current Assets - Stocks) / Current Liabilities`.

- *Fixed Assets* : in a going concern, the value of fixed assets are covered in the first place by owners' capital and in the second place by all of the long term liabilities. Ideally, this indicator will be greater than 1.

**Calculation of Indicators**

Calculating indicators can take quite a while in OpenERP, because you have to analyse the whole company's accounting entries.

So it is best not to calculate all of the indicators at once, but just a small selection to keep calculation time within limits.

### Time Analysis of Indicators

You can analyze the financial indicators along two axes. You must have a figure calculated at a particular instant of time when you compare accounts, balances and the ratios between them. But you can also calculate a time series to follow the change of a given indicator throughout the life of the company. To do a temporal analysis of your indicators, you must install the module `account_report` from the set of modules in `extra-addons`.

Once this module is installed, you can click on a financial indicator to get a graph of its evolution in time.

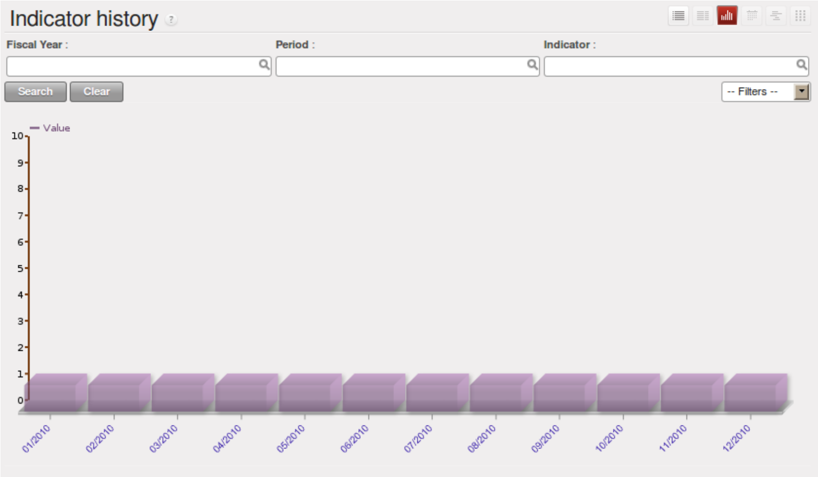
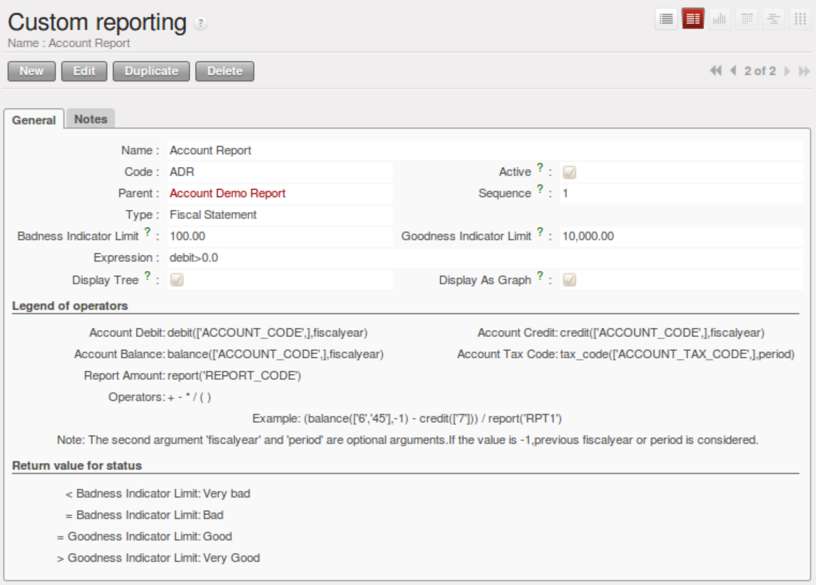

Indicator history
Fiscal Year :
Period :
Indicator :
Search
Clear
-- Filters --
Value
10
9
8
7
6
5
4
3
2
1
0
01/2010
02/2010
03/2010
04/2010
05/2010
06/2010
07/2010
08/2010
09/2010
10/2010
11/2010
12/2010

Figure 9.15: *History of an accounting indicator*

### Defining your Own Indicators

You can define your own indicators in OpenERP using the menu *Accounting → Reporting → Generic Reporting → Reporting → Custom reporting*.



Name : Account Report

Name : Account Report
Code : ADR
Active : ☑
Parent : Account Demo Report
Sequence : 1
Type : Fiscal Statement
Badness Indicator Limit : 100.00
Goodness Indicator Limit : 10,000.00
Expression : debit>0.0
Display Tree : ☑
Display As Graph : ☑

**Legend of operators**

Account Debit: debit(['ACCOUNT_CODE',],fiscalyear)
Account Credit: credit(['ACCOUNT_CODE',],fiscalyear)
Account Balance: balance(['ACCOUNT_CODE',],fiscalyear)
Account Tax Code: tax_code(['ACCOUNT_TAX_CODE',],period)
Report Amount: report('REPORT_CODE')
Operators: + - * / ( )

Example: (balance(['6','45'],-1) - credit(['7'])) / report('RPT1')

Note: The second argument 'fiscalyear' and 'period' are optional arguments.If the value is -1,previous fiscalyear or period is considered.

**Return value for status**

< Badness Indicator Limit: Very bad
= Badness Indicator Limit: Bad
= Goodness Indicator Limit: Good
> Goodness Indicator Limit: Very Good

Figure 9.16: *Defining a new indicator*

You should make sure that the accounts that you base indicators on are given unique account codes, because codes are used in the creation of formulae. Create a formula using the syntax indicated in the instructions at the bottom of the form:

- Sum of debits in a general account: `debit(’12345’)`,
- Sum of credits in a general account: `credit(’12345’)`,
- Balance of a general account: `balance(’12345’)`,
- Value of another indicator: `report (’IND’)`.

where:

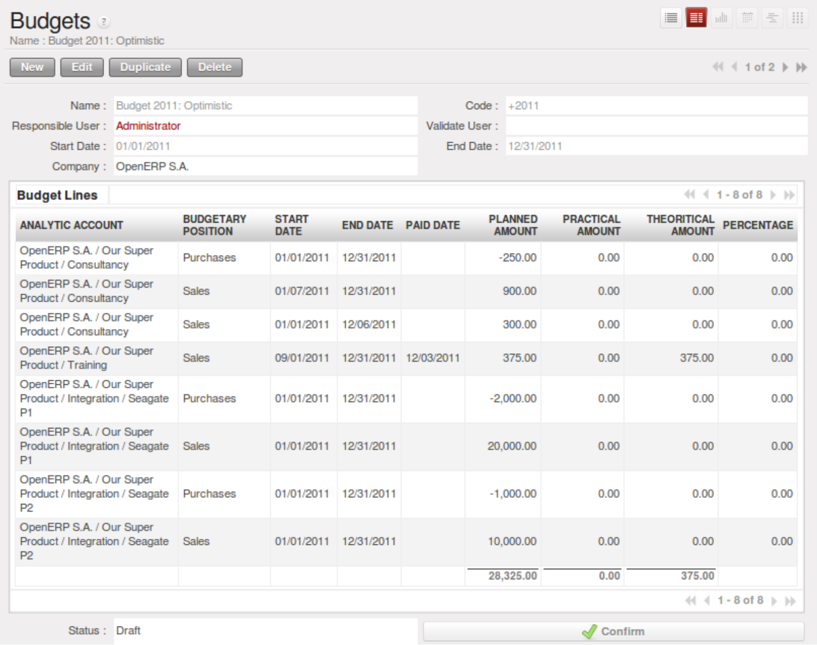
- `12345` represents the code of a general account,
- `IND` represents the code of another indicator.

So, using this notation, the cash ratio is defined by `balance(’4’, ’5’) / balance(’1’)` – that is the balance in accounts 4 and 5 divided by the balance in account 1.

### 9.3.2 Good Management Budgeting

OpenERP manages its budgets using both General and Analytic Accounts. You will see how to do this here for General Accounts and then in *Analytic Accounts* (page 99) for Analytical Accounts. Install `account_budget` to be able to do this.

Use the menu *Accounting* → *Budgets* → *Budgets* to define a new budget by clicking the *New* button.



Name : Budget 2011: Optimistic

| | | | |
|---|---|---|---|
| Name : | Budget 2011: Optimistic | Code : | +2011 |
| Responsible User : | Administrator | Validate User : | |
| Start Date : | 01/01/2011 | End Date : | 12/31/2011 |
| Company : | OpenERP S.A. | | |

| ANALYTIC ACCOUNT | BUDGETARY POSITION | START DATE | END DATE | PAID DATE | PLANNED AMOUNT | PRACTICAL AMOUNT | THEORITICAL AMOUNT | PERCENTAGE |
|---|---|---|---|---|---|---|---|---|
| OpenERP S.A. / Our Super Product / Consultancy | Purchases | 01/01/2011 | 12/31/2011 | | -250.00 | 0.00 | 0.00 | 0.00 |
| OpenERP S.A. / Our Super Product / Consultancy | Sales | 01/07/2011 | 12/31/2011 | | 900.00 | 0.00 | 0.00 | 0.00 |
| OpenERP S.A. / Our Super Product / Consultancy | Sales | 01/01/2011 | 12/06/2011 | | 300.00 | 0.00 | 0.00 | 0.00 |
| OpenERP S.A. / Our Super Product / Training | Sales | 09/01/2011 | 12/31/2011 | 12/03/2011 | 375.00 | 0.00 | 375.00 | 0.00 |
| OpenERP S.A. / Our Super Product / Integration / Seagate P1 | Purchases | 01/01/2011 | 12/31/2011 | | -2,000.00 | 0.00 | 0.00 | 0.00 |
| OpenERP S.A. / Our Super Product / Integration / Seagate P1 | Sales | 01/01/2011 | 12/31/2011 | | 20,000.00 | 0.00 | 0.00 | 0.00 |
| OpenERP S.A. / Our Super Product / Integration / Seagate P2 | Purchases | 01/01/2011 | 12/31/2011 | | -1,000.00 | 0.00 | 0.00 | 0.00 |
| OpenERP S.A. / Our Super Product / Integration / Seagate P2 | Sales | 01/01/2011 | 12/31/2011 | | 10,000.00 | 0.00 | 0.00 | 0.00 |
| | | | | | 28,325.00 | 0.00 | 375.00 | |

Status : Draft

Figure 9.17: *Budget form*

**Budget Revisions**

Even though you *can* modify a budget at any time to make a revision of it, it is best if you do not do that.

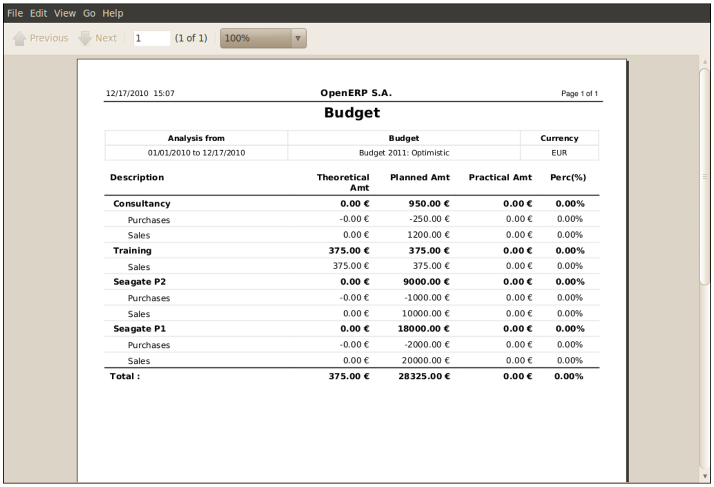
Rather than edit an existing budget document, make a new version so that you can keep your original estimates safe for comparison. This lets you analyze your changing perspectives of the company from revision to revision.

Begin data entry by entering a *Name*, a *Code*, a *Start Date* and an *End Date* in your new budget. Then you can define the budgeted amounts within that period, one by one. For each, you define:

- an *Analytic Account*
- a *Budgetary Position* : for example `Sales` or `Purchases`,
- a *Start Date* and *End Date* for the use of the budget,
- a *Planned Amount* in the default currency of the chart of accounts.

Once it is completed, you can save your budget.

To print a budget and make calculations of expenditure through budget, use the menu *Accounting* → *Budgets* → *Budgets*. OpenERP then gives you a list of available budgets. Select one or more budgets and then click *Print Budgets* to create the report for each, in a date range of your choice. The figure *Printing a budget* (page 85) gives an example of a budget produced by OpenERP.


File Edit View Go Help
Previous
Next
1
(1 of 1)
100%

12/17/2010 15:07 **OpenERP S.A.** Page 1 of 1

**Budget**

| Analysis from | Budget | Currency |
|---|---|---|
| 01/01/2010 to 12/17/2010 | Budget 2011: Optimistic | EUR |

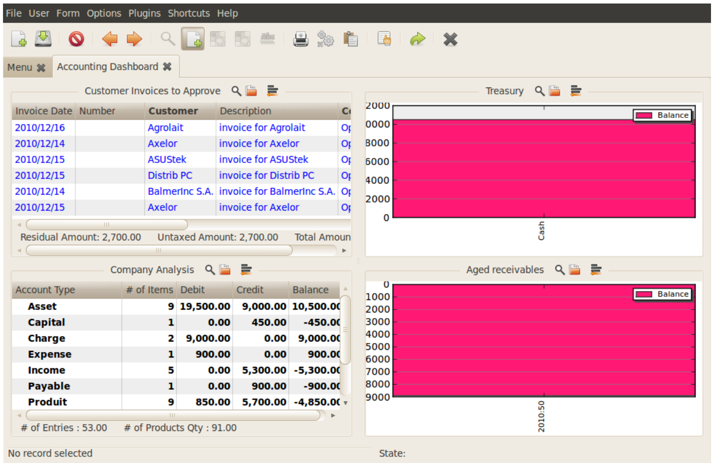
| Description | Theoretical Amt | Planned Amt | Practical Amt | Perc(%) |
|---|---|---|---|---|
| **Consultancy** | **0.00 €** | **950.00 €** | **0.00 €** | **0.00%** |
| Purchases | -0.00 € | -250.00 € | 0.00 € | 0.00% |
| Sales | 0.00 € | 1200.00 € | 0.00 € | 0.00% |
| **Training** | **375.00 €** | **375.00 €** | **0.00 €** | **0.00%** |
| Sales | 375.00 € | 375.00 € | 0.00 € | 0.00% |
| **Seagate P2** | **0.00 €** | **9000.00 €** | **0.00 €** | **0.00%** |
| Purchases | -0.00 € | -1000.00 € | 0.00 € | 0.00% |
| Sales | 0.00 € | 10000.00 € | 0.00 € | 0.00% |
| **Seagate P1** | **0.00 €** | **18000.00 €** | **0.00 €** | **0.00%** |
| Purchases | -0.00 € | -2000.00 € | 0.00 € | 0.00% |
| Sales | 0.00 € | 20000.00 € | 0.00 € | 0.00% |
| **Total :** | **375.00 €** | **28325.00 €** | **0.00 €** | **0.00%** |

Figure 9.18: *Printing a budget*

You could also use the menu *Accounting* → *Reporting* → *Generic Reporting* → *Budgets* → *Budget Lines*. This gives a budgetary analysis report for each budget line.

## 9.3.3 The Accounting Dashboard

You can open the *Accounting Dashboard* using the menu *Accounting* → *Reporting* → *Dashboard* → *Accounting Dashboard*.


File User Form Options Plugins Shortcuts Help
Menu
Accounting Dashboard
Treasury
2000
0000
8000
6000
4000
2000
0
Balance
Cash
Aged receivables
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
Balance
2010:50

Customer Invoices to Approve

| Invoice Date | Number | Customer | Description | C |
|---|---|---|---|---|
| 2010/12/16 | | Agrolait | invoice for Agrolait | Op |
| 2010/12/14 | | Axelor | invoice for Axelor | Op |
| 2010/12/15 | | ASUStek | invoice for ASUStek | Op |
| 2010/12/15 | | Distrib PC | invoice for Distrib PC | Op |
| 2010/12/14 | | BalmerInc S.A. | invoice for BalmerInc S.A. | Op |
| 2010/12/15 | | Axelor | invoice for Axelor | Op |

Residual Amount: 2,700.00 Untaxed Amount: 2,700.00 Total Amoun

Company Analysis

| Account Type | # of Items | Debit | Credit | Balance |
|---|---|---|---|---|
| **Asset** | **9** | **19,500.00** | **9,000.00** | **10,500.0** |
| **Capital** | **1** | **0.00** | **450.00** | **-450.0** |
| **Charge** | **2** | **9,000.00** | **0.00** | **9,000.0** |
| **Expense** | **1** | **900.00** | **0.00** | **900.0** |
| **Income** | **5** | **0.00** | **5,300.00** | **-5,300.0** |
| **Payable** | **1** | **0.00** | **900.00** | **-900.0** |
| **Produit** | **9** | **850.00** | **5,700.00** | **-4,850.0** |

# of Entries : 53.00 # of Products Qty : 91.00

No record selected State:

Figure 9.19: *Accounting Dashboard*

OpenERP gives you an accounting dashboard that can be presented to your accounting staff as they sign into the system (if you have set it as their Home Page). This dashboard provides an analysis of the company's financial health at a glance.

The description of the different parts of the dashboard, from top to bottom, then from left to right, is as follows:

- *Customer Invoices to Approve* : gives the list of invoices waiting to be approved by an accountant.
- *Company Analysis* : gives the credit, debit and balance of all account types.
- *Treasury* : shows balance per Account
- *Aged receivables* : gives a weekly graph of the receivables that have not yet been reconciled.

In each panel of the *Accounting Dashboard*, you can click the *Zoom* button at the top right to investigate the detail of your financial indicators.

The *Accounting Dashboard* is dynamically integrated, which means that you can navigate easily through the data if you want more detail about certain factors, and edit the entries if necessary.

# Configuring Accounts from A to Z

# 10

*Accounts must be configured to meet your company's needs. This chapter explains how to modify your chart of accounts, journals, access rights, initial account balances and default values for the initial configuration of your OpenERP accounts.*

Assuming that it calculates sufficiently accurately, the best accounting software would be marked out by its usability and simplicity of data entry, and flexibility in configuring its different components. You would be able to easily modify the accounting module to meet your own needs, so that you could optimize it for the way you want to use it.

OpenERP lets you adapt and reconfigure many functions to ease the task of data entry:

- adding controls for data entry,
- customizing the screens,
- filling fields automatically during data entry with data that is already known to the system.

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.

## 10.1 Chart of Accounts

You view active charts of accounts using the menu *Accounting* → *Charts* → *Chart of Accounts*, and *Open Charts* for the selected year and account moves.

**Hierarchical Charts**

Most accounting software packages represent their charts of accounts in the form of a list. You can do this in OpenERP as well if you want to, but its tree view offers several advantages:

- it lets you show and calculate only the accounts that interest you,
- it enables you to get a global view of accounts (when you show only summary accounts),
- it simplifies searches semantically,
- it is more intuitive, because you can search for accounts on the basis of their classification,
- it is flexible because you can easily restructure them.

The structure of the chart of accounts is hierarchical, with account subtotals called account views. You can develop a set of account views to contain only those elements that interest you.

To get the detail of the account entries that are important to you, all you need to do is click the account's *Code* (if you have no codes, you can select the line, then click *Switch* to get the account definition, then click the *Entries* in the *LINKS* part of the toolbar).

Displaying the chart of accounts can take several seconds, because OpenERP calculates the debits, credits and balance for each account in real time.

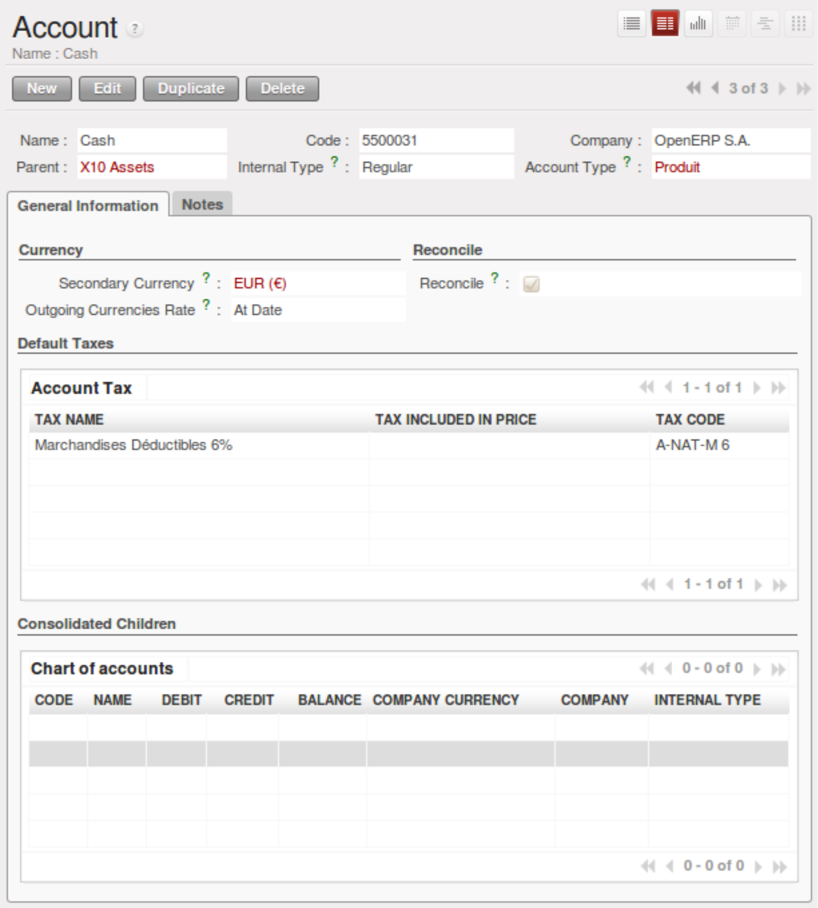
### 10.1.1 Using a Preconfigured Chart of Accounts

On installation, the software is given a default chart of accounts that is the same regardless of your country. To install the chart of accounts and tax definitions for your own country, install the module `l10n_XX` where XX represents your country code in two letters. For example, to get the chart of accounts for France, install the module `l10n_fr`.

Some of these pre-built modules are comprehensive and accurate, others have rather more tentative status and are simply indicators of the possibilities. You can modify these, or build your own accounts onto the default chart, or replace it entirely with a custom chart.

### 10.1.2 Creating a Chart of Accounts

To add, modify or delete existing accounts, use the menu *Accounting* → *Configuration* → *Financial Accounting* → *Accounts* → *Accounts*.



Name : Cash
Code : 5500031
Company : OpenERP S.A.
Parent : X10 Assets
Internal Type ? : Regular
Account Type ? : Produit

**Currency**

Secondary Currency ? : EUR (€)
Outgoing Currencies Rate ? : At Date

**Reconcile**

Reconcile ? : ☑

**Default Taxes**

**Account Tax** 1 - 1 of 1

| TAX NAME | TAX INCLUDED IN PRICE | TAX CODE |
|---|---|---|
| Marchandises Déductibles 6% | | A-NAT-M 6 |

**Consolidated Children**

**Chart of accounts** 0 - 0 of 0

| CODE | NAME | DEBIT | CREDIT | BALANCE | COMPANY CURRENCY | COMPANY | INTERNAL TYPE |
|---|---|---|---|---|---|---|---|

Figure 10.1: *Definition of an account*

**Multi-lingual Fields**

In OpenERP, multi-lingual fields are marked by a small flag to their right. Click on the flag to get a translation of the value of the field in the different installed languages. You can also edit the translation.

This enables you to efficiently manage other languages as you need them. The field's value appears in the language of the logged-in user or, in the case of reports printed for a partner, that of the partner.

The main account fields are:

- *Name* : gives the account a name.
- *Account Type* : account types determine an account's use in each journal. By default, the following types are available: `View`, `Receivable`, `Payable`, `Income`, `Expense`, `Tax`,

`Cash`, `Asset`, `Equity`. You can add new types through the menu *Accounting* → *Configuration* → *Financial Accounting* → *Accounts* → *Account Types*. Use the *View* type for accounts that make up the structure of the charts and have no account data inputs of their own.

- *Internal Type* : internal types have special effects in OpenERP. By default, the following types are available: `View`, `Regular`, `Receivable`, `Payable`, `Liquidity`, `Consolidation`, `Closed`.

> **Type of Account**
>
> Account types are mainly used as informative titles. The only two types that have any particular effect are `Receivable` and `Payable`.
>
> These two types are used by reports on partner credits and debits. They are calculated from the list of unreconciled entries in the accounts of one of these two types.

- *Code* : the code length is not limited to a specific number of digits. Use code 0 for all root accounts.
- *Secondary Currency* : forces all the moves for this account to have this secondary currency.
- *Reconcile* : determines if you can reconcile the entries in this account. Activate this field for partner accounts and for chequeing (checking) accounts.
- *Parent* : determines which account is the parent of this one, to create the tree structure of the chart of accounts.
- *Default Taxes* : this is the default tax applied to purchases or sales using this account. It enables the system to generate tax entries automatically when entering data in a journal manually.

The tree structure of the accounts can be altered as often and as much as you wish without recalculating any of the individual entries. So you can easily restructure your account during the year to reflect the reality of the company better.

### 10.1.3 Virtual Charts of Accounts

The structure of a chart of accounts is imposed by the legislation in effect in the country of concern. Unfortunately, that structure does not always correspond to the view that a company's CEO needs.

In OpenERP, you can use the concept of virtual charts of accounts to manage several different representations of the same accounts simultaneously. These representations can be shown in real time with no additional data entry.

So your general chart of accounts can be the one imposed by the statutes of your country, and your CEO can then have other virtual charts as necessary, based on the accounts in the general chart. For example, the CEO can create a view per department, a cash-flow and liquidity view, or consolidated accounts for different companies.

The most interesting thing about virtual charts of accounts is that they can be used in the same way as the default chart of accounts for the whole organization. For example, you can establish budgets from your consolidated accounts or from the accounts from one of your companies.

**Virtual Accounts**

Virtual accounts enable you to provide different representations of one or several existing charts of accounts. Creating and restructuring virtual accounts has no impact on the accounting entries. You can then use the virtual charts with no risk of altering the general chart of accounts or future accounting entries.

Because they are used only to get different representation of the same entries, they are very useful for:

- consolidating several companies in real time,
- depreciation calculations,
- cash-flow views,
- getting more useful views than those imposed by statute,
- presenting summary charts to other users that are appropriate to their general system rights.

So there are good reasons for viewing the execution of financial transactions through virtual charts, such as budgets and financial indicators based on special views of the company.

To create a new chart of accounts you should create a root account using the menu *Accounting* → *Configuration* → *Financial Accounting* → *Accounts* → *Accounts*. Your top level account should have *Code* `0` and *Type* `View` . Then you can choose your structure by creating other accounts of *Type* `View` as necessary. Check your virtual structure using the menu *Financial Management* → *Charts* → *Charts of Accounts*.

You have to set *Internal Type* as `Consolidation` and set *Consolidated Children* accounts to make accounts consolidate.

Finally, when you have got your structure, you must make the general accounts and virtual accounts match. For that, search the general accounts and ensure that each non-`View` account there also has a virtual account in the field *Parent*.

You can then check through your general chart of accounts as well as your virtual charts which give you another representation of the company. All the actions and states in your general account are also available in the virtual accounts.

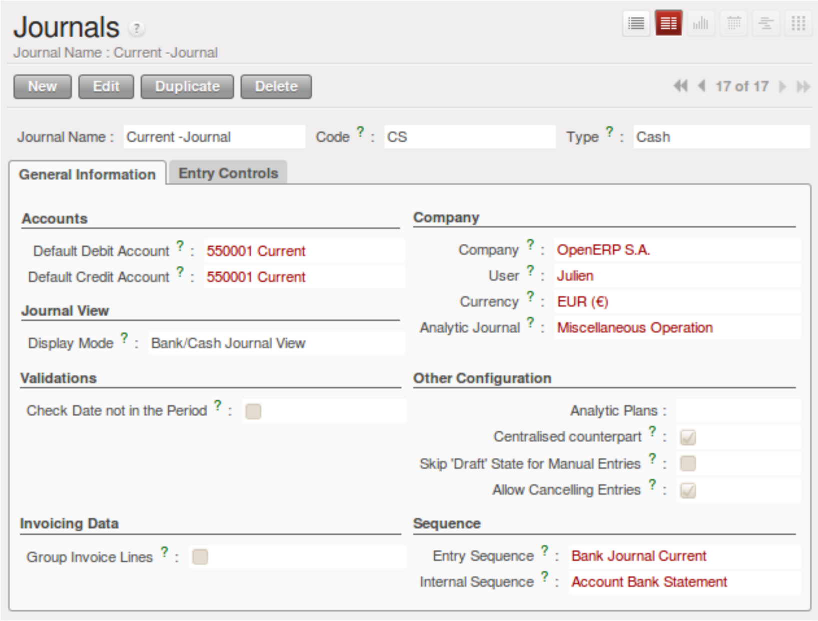
Finally, you can also make virtual charts of accounts from other virtual charts. That can give an additional dimension for financial analysis.

## 10.2 Journals

All your accounting entries must appear in an accounting journal. So you must, at a minimum, create a Sales Journal for customer invoices, a Purchase Journal for supplier invoices and a Cash Journal for cash and bank transactions.

### 10.2.1 Configuring a Journal

To view, edit or create new journals use the menu *Accounting* → *Configuration* → *Financial Accounting* → *Journals* → *Journals*.



Journal Name : Current -Journal

Journal Name : Current -Journal
Code ? : CS
Type ? : Cash

**Accounts**

Default Debit Account ? : 550001 Current
Default Credit Account ? : 550001 Current

**Journal View**

Display Mode ? : Bank/Cash Journal View

**Validations**

Check Date not in the Period ? : ☐

**Invoicing Data**

Group Invoice Lines ? : ☐

**Company**

Company ? : OpenERP S.A.
User ? : Julien
Currency ? : EUR (€)
Analytic Journal ? : Miscellaneous Operation

**Other Configuration**

Analytic Plans :
Centralised counterpart ? : ☑
Skip 'Draft' State for Manual Entries ? : ☐
Allow Cancelling Entries ? : ☑

**Sequence**

Entry Sequence ? : Bank Journal Current
Internal Sequence ? : Account Bank Statement

Figure 10.2: *Definition of an accounting journal*

You have to associate a view with each journal. The journal view indicates the fields that must be visible and required to enter accounting data in that journal. The view determines both the order of the fields and the properties of each field. For example, the field *Account Number* must appear when entering data in the bank journal but not in the other journals.

Before creating a new view for a journal, check that there is nothing similar already defined for another journal. You should only create a new view for new types of journals.

**Customizing Views**

You will often have to edit a journal view. For example, for a journal in a foreign currency you add a field for the currency, and this currency must be in the journal view.

Conversely, to simplify data entry, the journal view for the bank is quite different from one of the invoicing journals.

You can create a sequence for each journal. This sequence gives the automatic numbering for accounting entries. Or several journals can use the same sequence if you want to define one for them all.

The credit and debit account by default permit the automatic generation of counterpart entries when you are entering data in the journal quickly. For example, in a bank journal you should put an associated bank account for default matching credits and debits, so that you do not have to create counterparts for each transaction manually.

A journal can be marked as being centralized. When you do this, the counterpart entries will not be owned by each entry, but globally for the given journal and period. You will then have a credit line and a debit line centralized for each entry in one of these journals, meaning that both credit and debit appear on the same line.

### 10.2.2 Controls and Tips for Data Entry

You can carry out two types of control on journals in OpenERP – controls over the financial accounts and access controls for groups of users. In addition to these controls, you can also apply all of the rights management detailed in *ch-config*.

To avoid mistakes while entering accounts data, you can place conditions in the general accounts about who can use a given account. To do this, you must list all the accounts or valid account types in the second tab, *Entry Controls*. If you have not added any accounts there, OpenERP applies no restriction on data entry in the accounts or journals. If you list accounts and the types of accounts that can be used in a journal, OpenERP prevents you from using any account not in that list. This verification step starts from the moment you save the entry.

This functionality is useful for limiting possible data entry errors. Also, in a bank journal, it is possible to restrict the accounts that can be linked to a bank to classes 1 to 5. Using this, you would help prevent the user from making any false entries in the journal.

**Control of Data Entry**

In accounting it is not a good idea to allow a data entry directly from bank account A to bank account B. If you enter a transaction from bank A to bank B, the transaction will be accounted for twice.

To prevent this problem, pass the transaction through intermediate account C. At the time of data entry, the system checks the type of account that is accepted in the bank journal: only accounts that are not of type `Bank` are accepted.

If your accountant defines this control properly, non-accounting users are prevented from transferring payment from one bank to another, reducing your risks.

## 10.3 Periods and Financial Years

**Periods and Fiscal Years**

A fiscal year (or financial year) corresponds to twelve months for a company. In many countries, the fiscal year corresponds to a calendar year. That is not the case in others.

The fiscal year is divided into monthly or three-monthly accounting periods.

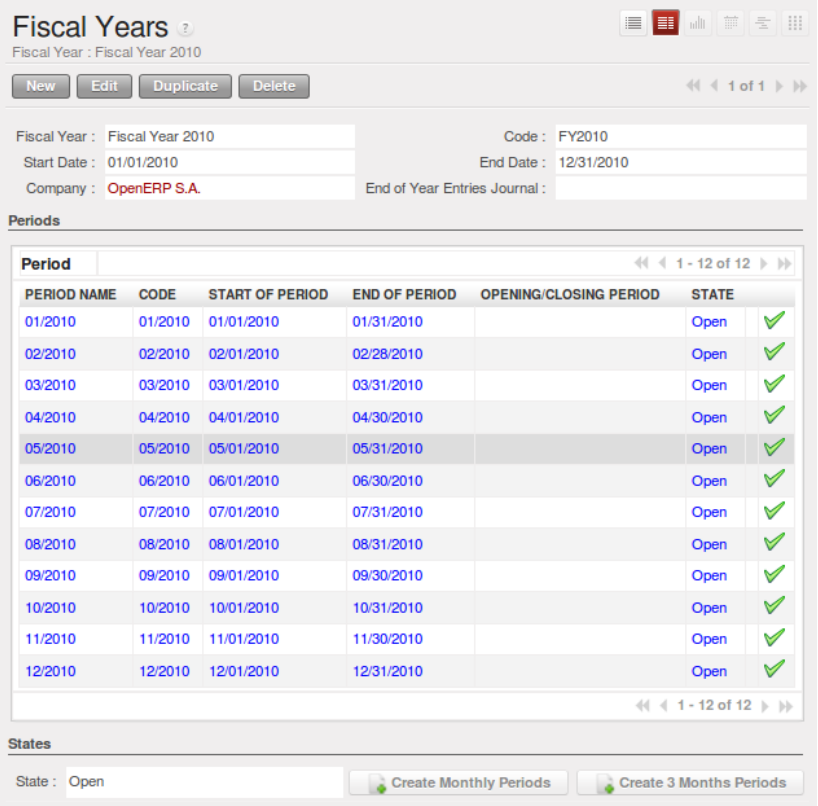
OpenERP's management of the fiscal year is flexible enough to enable you to work on several years at the same time. This gives you several advantages, such as creating three-year budgets, and statements straddling several calendar years.

### 10.3.1 Defining a Period or a Financial Year

To define your fiscal year, use the menu *Accounting* → *Configuration* → *Financial Accounting* → *Periods* → *Fiscal Year*. You can create several years in advance to define long-term budgets.

First enter the date of the first day of your fiscal year and the last day. Then to create the periods, click one of the two buttons at the bottom depending on whether you want to create twelve 1-month or four 3-month periods:

- *Create Monthly Periods* ,
- *Create 3 Months Periods* .



Fiscal Years

Fiscal Year : Fiscal Year 2010

Fiscal Year : Fiscal Year 2010

Start Date : 01/01/2010

Company : OpenERP S.A.

Code : FY2010

End Date : 12/31/2010

End of Year Entries Journal :

Periods

Period 1 - 12 of 12

| PERIOD NAME | CODE | START OF PERIOD | END OF PERIOD | OPENING/CLOSING PERIOD | STATE | |
|---|---|---|---|---|---|---|
| 01/2010 | 01/2010 | 01/01/2010 | 01/31/2010 | | Open | ✓ |
| 02/2010 | 02/2010 | 02/01/2010 | 02/28/2010 | | Open | ✓ |
| 03/2010 | 03/2010 | 03/01/2010 | 03/31/2010 | | Open | ✓ |
| 04/2010 | 04/2010 | 04/01/2010 | 04/30/2010 | | Open | ✓ |
| 05/2010 | 05/2010 | 05/01/2010 | 05/31/2010 | | Open | ✓ |
| 06/2010 | 06/2010 | 06/01/2010 | 06/30/2010 | | Open | ✓ |
| 07/2010 | 07/2010 | 07/01/2010 | 07/31/2010 | | Open | ✓ |
| 08/2010 | 08/2010 | 08/01/2010 | 08/31/2010 | | Open | ✓ |
| 09/2010 | 09/2010 | 09/01/2010 | 09/30/2010 | | Open | ✓ |
| 10/2010 | 10/2010 | 10/01/2010 | 10/31/2010 | | Open | ✓ |
| 11/2010 | 11/2010 | 11/01/2010 | 11/30/2010 | | Open | ✓ |
| 12/2010 | 12/2010 | 12/01/2010 | 12/31/2010 | | Open | ✓ |

1 - 12 of 12

States

State : Open

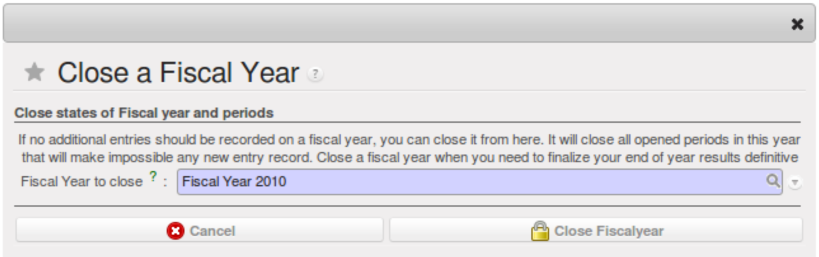
Figure 10.3: *Defining a financial year and periods*

### 10.3.2 Closing a Financial Year

To close a financial year, use the menu *Accounting* → *Periodical Processing* → *End of Period* → *Close a Fiscal Year*. A wizard opens asking you for the essential information it needs to close the following year.

When the year is closed, you can no longer create or modify any financial transactions in that year. So you should always make a backup of the database before closing the fiscal year. Closing a year is not obligatory, and you could easily do that sometime in the following year, when your accounts are finally sent to the statutory authorities, and no further modifications are permitted.

It is also possible to close an accounting period. You could, for example, close a monthly period when a tax declaration has been made. When a period is closed, you cannot modify any of the entries in that period. To close an accounting period, use the menu *Accounting* → *Periodical Processing* → *End of Period* → *Close a Period*.



**Close states of Fiscal year and periods**

If no additional entries should be recorded on a fiscal year, you can close it from here. It will close all opened periods in this year that will make impossible any new entry record. Close a fiscal year when you need to finalize your end of year results definitive

Fiscal Year to close ? : Fiscal Year 2010

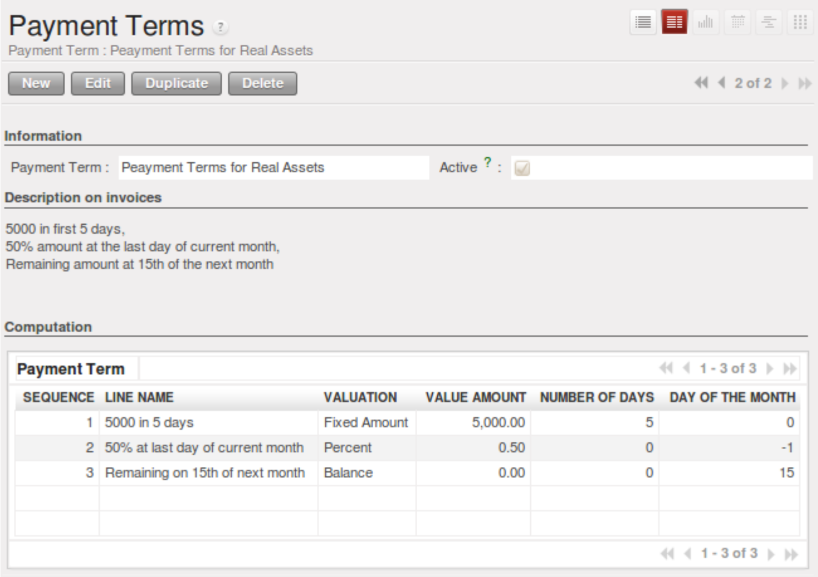
Figure 10.4: *Closing a financial year*

## 10.4 Payment Terms

You can define whatever payment terms you need in OpenERP. Payment terms determine the due dates for paying an invoice.

To define new payment terms, use the menu *Accounting* → *Configuration* → *Miscellaneous* → *Payment Terms* and then click *New*.

The figure below represents the following payment term: 5000 within 5 days, 50% payment at the last day of current month, Remaining on 15th of next month.



**Information**

Payment Term : Peayment Terms for Real Assets

Active ? : ☑

**Description on invoices**

5000 in first 5 days,
50% amount at the last day of current month,
Remaining amount at 15th of the next month

**Computation**

**Payment Term**

| SEQUENCE | LINE NAME | VALUATION | VALUE AMOUNT | NUMBER OF DAYS | DAY OF THE MONTH |
|---|---|---|---|---|---|
| 1 | 5000 in 5 days | Fixed Amount | 5,000.00 | 5 | 0 |
| 2 | 50% at last day of current month | Percent | 0.50 | 0 | -1 |
| 3 | Remaining on 15th of next month | Balance | 0.00 | 0 | 15 |

Figure 10.5: *Configuring payment terms*

To configure new conditions, start by giving a name to the *Payment Term* field. Text that you put in the field *Description on invoices*, is used on invoices, so enter a clear description of the payment terms there.

Then create individual lines for calculating the terms in the section *Payment Term*. You must give each line a name (*Line Name*). These give an informative title and do not affect the actual calculation of terms. The *Sequence* field lets you define the order in which the rules are evaluated.

The *Valuation* field enables you to calculate the amount to pay for each line:

- `Percent` : the line corresponds to a percentage of the total amount, the factor being given in *Value Amount*. The number indicated in *Value Amount* must take a value between 0 and 1.
- `Fixed Amount` : this is a fixed value given by the *Value Amount* box.
- `Balance` : indicates the balance remaining after accounting for the other lines.

Think carefully about setting the last line of the calculation to `Balance` , to avoid rounding errors. The highest sequence number is evaluated last.

The two last fields, *Number of Days* and *Day of the Month*, enable the calculation of the delay in payment for each line. The delay *Day of the Month* can be set to `-1` , `0` or any positive number. For example, if today is 20th December 2010, and if you want to set payment terms like this:

- *5000 within 5 days*: set *Valuation* `Fixed Amount`, *Number of Days* `5` and *Day of the Month* `0`. That creates journal entry for date 25th December 2010.
- *50% payment at the last day of current month*: set *Valuation* `Percent`, *Number of Days* `0` and *Day of the Month* `-1`. That creates journal entry for date 31st December 2010.
- *Remaining on 15th of next month*: set *Valuation* `Balance`, *Number of Days* `0` and *Day of the Month* `15`. That creates journal entry for date 15th January 2011.

You can then add payment terms to a Partner through the tab *Accounting* on the partner form.

## 10.5 Opening Entries

To upgrade your various accounts, create a Journal of type *Opening/Closing Situation* in *Centralised counterpart* mode to avoid a counterpart on each line.

For each account that needs upgrading, enter account data in the journal. For this operation, use the menu *Accounting → Journal Entries → Journal Items*.

You can also use OpenERP's generic import tool if you load the balance of each of your accounts from other accounting software.

Example Steps:

1. *Accounting → Configuration → Financial Accounting → Periods → Fiscal Year*: Create a fiscal year with monthly periods
2. *Accounting → Configuration → Financial Accounting → Accounts → Accounts*: Create an account `Opening Balance Account` (*Account Type*: `Equity`, *Reconcile*: `No`)

3. *Accounting* → *Configuration* → *Financial Accounting* → *Journals* → *Journals* : Create a new journal `Opening Bal Journal` (*Type*: `Opening/Closing Situation`, *View*: `Journal View`, *Entry Sequence*: `Account Journal`, *Default Debit Account*: `Opening Balance Account`, *Default Credit Account*: `Opening Balance Account`, *Centralized Counterpart*: `Yes`)

4. **It is best to create a csv file with the first line:** "Account","Effective date","Journal","Name","Period","Debit","Credit"

   **And the data-lines like this:** "1000","2011-01-16","Opening Bal Journal","Opening Balance Entry","01/01 - 01/01",0,53828

5. *Accounting* → *Configuration* → *Financial Accounting* → *Journals* → *Journals* : Choose `Opening Bal Journal`

6. *Accounting* → *Journal Entries* → *Journal Items* : While the form is still in List view, click *Import* from the *Other Options* section at the bottom right of the list.

# Analytic Accounts

# 11

*Sitting at the heart of your company's processes, analytic accounts (or cost accounts) are indispensable tools for managing your operations well. Unlike your financial accounts, they are for more than accountants - they are for general managers and project managers, too.*

You need a common way of referring to each user, service, or document to integrate all your company's processes effectively. Such a common basis is provided by analytic accounts (or management accounts, or cost accounts, as they are also called) in OpenERP.

Analytic accounts are often presented as a foundation for strategic enterprise decisions. But because of all the information they pull together, OpenERP's analytic accounts can be a useful management tool, at the center of most system processes.

There are several reasons for this:

- they reflect your entire management activity,
- unlike the general accounts, the structure of the analytic accounts is not regulated by legal obligations, so each company can adapt it to its needs.

> **Independence from General Accounts**
>
> In some software packages, analytic accounts are managed as an extension of general accounts – for example, by using the two last digits of the account code to represent analytic accounts.
>
> In OpenERP, analytic accounts are linked to general accounts but are treated totally independently. So you can enter various different analytic operations that have no counterpart in the general financial accounts.

While the structure of the general chart of accounts is imposed by law, the analytic chart of accounts is built to fit a company's needs closely.

Just as in the general accounts, you will find accounting entries in the different analytic accounts. Each analytic entry can be linked to a general account, or not, as you wish. Conversely, an entry in a general account can be linked to one, several, or no corresponding analytic accounts.

You will discover many advantages of this independent representation below. For the more impatient, here are some of those advantages:

- you can manage many different analytic operations,
- you can modify an analytic plan on the fly, during the course of an activity, because of its independence,

- you can avoid an explosion in the number of general accounts,
- even those companies that do not use OpenERP's general accounts can use the analytic accounts for management.

**Who Benefits from Analytic Accounts?**

Unlike general accounts, analytic accounts in OpenERP are not so much an accounting tool for Accounts as a management tool for everyone in the company. (That is why they are also called management accounts.)

The main users of analytic accounts should be the directors, general managers and project managers.

Analytic accounts make up a powerful tool that can be used in different ways. The trick is to create your own analytic structure for a chart of accounts that closely matches your company's needs.

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.

## 11.1 To Each Enterprise its own Analytic Chart of Accounts

To illustrate analytic accounts clearly, you will follow three use cases, each in one of three different types of company:

1. Industrial Manufacturing Enterprise.
2. Law Firm.
3. IT Services Company.

### 11.1.1 Case 1: Industrial Manufacturing Enterprise

In industry, you will often find analytic charts of accounts structured into the departments and products that the company itself is built on.

So the objective is to examine the costs, sales and margins by department and by product. The first level of the structure comprises the different departments, and the lower levels represent the product ranges that the company makes and sells.

**Analytic Chart of Accounts for an Industrial Manufacturing Company**

1. Marketing Department
2. Commercial Department
3. Administration Department
4. Production
    - Product Range 1
    - Sub-groups
    - Product Range 2

In daily use, it is useful to mark the analytic account on each purchase invoice. The analytic account is the one to which the costs of that purchase should be allocated. When the invoice is approved, it will automatically generate the entries for both the general and the corresponding analytic accounts. So, for each entry on the general accounts, there is at least one analytic entry that allocates costs to the department that incurred them.

Here is a possible breakdown of some general accounting entries for the example above, allocated to various analytic accounts:

Table 11.1: Breakdown of general and analytic accounting entries (Case 1)

| **General accounts** | | | | **Analytic accounts** | |
|---|---|---|---|---|---|
| Title | Account | Debit | Credit | Account | Value |
| Purchase of Raw Material | 600 | 1500 | | Production / Range 1 | -1 500 |
| Subcontractors | 602 | 450 | | Production / Range 2 | -450 |
| Credit Note for defective materials | 600 | | 200 | Production / Range 1 | 200 |
| Transport charges | 613 | 450 | | Production / Range 1 | -450 |
| Staff costs | 6201 | 10000 | | Marketing | -2 000 |
| | | | | Commercial | -3 000 |
| | | | | Administrative | -1 000 |
| | | | | Production / Range 1 | -2 000 |
| | | | | Production / Range 2 | -2 000 |
| PR | 614 | 450 | | Marketing | -450 |

The analytic representation by department enables you to investigate the costs allocated to each department in the company.

So, the analytic chart of accounts shows the distribution of the company’s costs using the example above:

Table 11.2: Analytic chart of accounts (Case 1)

| Account | Total |
|---|---|
| Marketing Department | -2 450 |
| Commercial Department | -3 000 |
| Administration Department | -1 000 |
| Production | -6 200 |
| Product Range 1 | -3 750 |
| Product Range 2 | -2 450 |

In this example of a hierarchical structure in OpenERP, you can analyze not only the costs of each product range but also the costs of the whole of production. The balance of a summary account ( *Production* ) is the sum of the balances of the child accounts.

A report that relates both general accounts and analytic accounts enables you to get a breakdown of costs within a given department. An analysis of the Production / Product Range 1 department is shown in this table:

Table 11.3: Report merging both general and analytic accounts for a department (Case 1)

| **Production / Product Range 1** | |
|---|---|
| General Account | Amount |
| 600 – Raw Materials | - 1 300 |
| 613 – Transport charges | - 450 |
| 6201 – Staff costs | -2 000 |
| Total | -3 750 |

The examples above are based on a breakdown of the costs of the company. Analytic allocations can be just as effective for sales. That gives you the profitability (sales - costs) of different departments.

**Representation by Unique Product Range**

This analytic representation by department and by product range is usually used by trading companies and industries.

A variant of this is not to break it down by sales and marketing departments but to assign each cost to its corresponding product range. This will give you an analysis of the profitability of each product range.

Choosing one over the other depends on how you look at your marketing effort. Is it a global cost allocated in some general way, or does each product range have responsibility for its own marketing costs?

### 11.1.2 Case 2: Law Firm

Law firms generally adopt management by case, where each case represents a current client file. All of the expenses and products are then attached to a given file.

A principal preoccupation of law firms is the invoicing of hours worked, and the profitability by case and by employee.

Mechanisms used for encoding the hours worked will be covered in detail in the following chapter, *ch-hr*. Like most system processes, hours worked are integrated into the analytic accounting. Every time an employee enters a timesheet for a number of hours, that automatically generates analytic accounts corresponding to the cost of those hours in the case concerned. The hourly charge is a function of the employee's salary. So a law firm will opt for an analytic representation which reflects the management of the time that employees work on the different client cases.

***Example Representation of an Analytic Chart of Accounts for a Law Firm***

1. Absences
    - Paid Absences
    - Unpaid Absences
2. Internal Projects
    - Administrative
    - Others
3. Client Cases
    - Client 1
    - Case 1.1
    - Case 1.2
    - Client 2
    - Case 2.1

All expenses and sales are then attached to a case. This gives the profitability of each case and, at a consolidated level, of each client.

Billing for the different cases is a bit unusual. The cases do not match any entry on the general account and nor do they come from purchase or sale invoices. They are represented by the various analytic operations and do not have exact counterparts in the general accounts. They are calculated on the basis of the hourly cost per employee. These entries are automatically created on billing worksheets.

At the end of the month when you pay salaries and benefits, you integrate them into the general accounts but not in the analytic accounts, because they have already been accounted for in billing each account.

A report that relates data from the analytic and general accounts then lets you compare the totals, so you can readjust your estimates of hourly cost per employee depending on the time actually worked.

The following table gives an example of different analytic entries that you can find for your analytic account:

Table 11.4: Analytic entries for the account chart (Case 2)

| Title | Account | Amount | General Account | Debit | Credit |
|---|---|---|---|---|---|
| Study the file (1 h) | Case 1.1 | -15 | | | |
| Search for information (3 h) | Case 1.1 | -45 | | | |
| Consultation (4 h) | Case 2.1 | -60 | | | |
| Service charges | Case 1.1 | 280 | 705 – Billing services | | 280 |
| Stationery purchase | Administrative | -42 | 601 – Furniture purchase | 42 | |
| Fuel Cost -Client trip | Case 1.1 | -35 | 613 – Transports | 35 | |
| Staff salaries | | | 6201 – Salaries | | 3 000 |

You will see that it allows you to make a detailed study of the profitability of different transactions. In this example, the cost of Case 1.1 is 95.00 (the sum of the analytic costs of studying the files, searching for information and service charges), but has been invoiced for 280.00, which gives you a gross profit of 185.00.

But an interest in analytical accounts is not limited to a simple analysis of the profitability of different cases.

This same data can be used for automatic recharging of the services to the client at the end of the month. To invoice clients, just take the analytic costs in that month and apply a selling price factor to generate the invoice. Invoicing mechanisms for this are explained in greater detail in *ch-services*. If the client requires details of the services used on the case, you can then print the service entries in the analytic account for this case.

**Invoicing Analytic Costs**

Most software that manages billing enables you to recharge for hours worked. In OpenERP, these services are automatically represented by analytic costs. But many other OpenERP documents can also generate analytic costs, such as credit notes and purchases of goods.

So when you invoice the client at the end of the month, it is possible for you to include all the analytic costs, not just the hours worked. So, for example, you can easily recharge the whole cost of your journeys to the client.

### 11.1.3 Case 3: IT Services Company

Most IT service companies face the following problems:

- project planning,

- invoicing, profitability and financial follow-up of projects,
- managing support contracts.

To deal with these problems, you would use an analytic chart of accounts structured by project and by contract. A representation of that is given in the following example:

***Example Analytic Representation of a Chart of Accounts for an IT Services Company***

1. Internal Projects
    - Administrative and Commercial
    - Research and Development
2. Client Projects
    - Client 1
    - Project 1.1
    - Project 1.2
    - Client 2
    - Project 2.1
    - Project 2.2
3. Support Contracts – 20h
    - Customer X
    - Customer Y

The management of services, expenditures and sales is similar to that presented above for lawyers. Invoicing and the study of profitability are also similar.

But now look at support contracts. These contracts are usually limited to a prepaid number of hours. Each service posted in the analytic accounts shows the remaining available hours of support. For the management of support contracts, you would use the quantities and not the amounts in the analytic entries.

In OpenERP, each analytic line lists the number of units sold or used, as well as what you would usually find there – the amount in currency units (USD or GBP, or whatever other choice you make). So you can sum the quantities sold and used on each analytic account to determine whether any hours of the support contract remain. To differentiate services from other costs in the analytic account, you use the concept of the analytic journal. Analytic entries are then allocated into the different journals:

- service journal,
- expense journal,

- sales journal,
- purchase journal.

So to obtain the detailed breakdown of a support contract, you only have to look at the service journal for the analytic account corresponding to the contract in question.

Finally, the analytic account can be used to forecast future needs. For example, monthly planning of staff on different projects can be seen as an analytic budget limited to the service journal. Accounting entries are expressed in quantities (such as number of hours, and numbers of products), and in amounts in units of currency (USD or GBP perhaps).

So you can set up planning on just the basis of quantities. Analyzing the analytic budget enables you to compare the budget (that is, your plan) to the services actually carried out by month end.

**Cash Budgets**

Problems of cash management are amongst the main difficulties encountered by small growing businesses. It is really difficult to predict the amount of cash that will be available when a company is young and rapidly growing.

If the company adopts management by case, then staff planning can be represented on the analytic accounts report, as you have seen.

But since you know your selling price for each of the different projects, you can see that it is easy to use the plan in the analytic accounts to more precisely forecast the amounts that you will invoice in the coming months.

## 11.2 Putting Analytic Accounts in Place

For the initial setup of good analytic accounts you should:

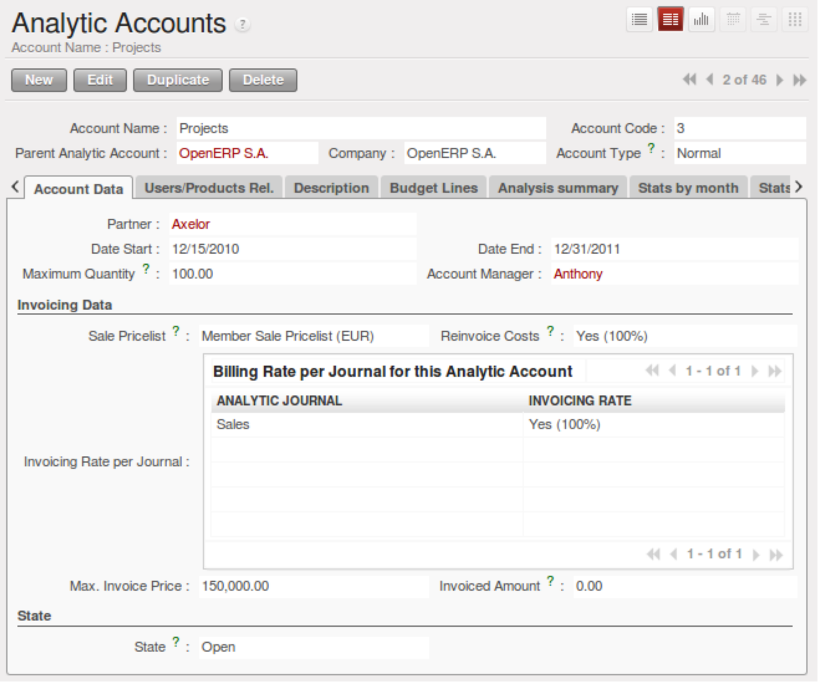
- set up the chart of accounts,
- create the different journals.

### 11.2.1 Setting up the Chart of Accounts

Start by choosing the most suitable analytic representation for your company before entering it into OpenERP. To create the different analytic accounts, use the menu *Accounting* → *Configuration* → *Analytic Accounting* → *Analytic Accounts* and click the *New* button.

To create an analytic account, you have to complete the main fields:

- the *Account Name*,
- the *Account Code* : used as a shortcut for selecting the account,



Account Name : Projects

Account Name : Projects
Account Code : 3
Parent Analytic Account : OpenERP S.A.
Company : OpenERP S.A.
Account Type ? : Normal

Partner : Axelor
Date Start : 12/15/2010
Date End : 12/31/2011
Maximum Quantity ? : 100.00
Account Manager : Anthony

Sale Pricelist ? : Member Sale Pricelist (EUR)
Reinvoice Costs ? : Yes (100%)

Invoicing Rate per Journal :

Billing Rate per Journal for this Analytic Account (1 - 1 of 1)

| ANALYTIC JOURNAL | INVOICING RATE |
|---|---|
| Sales | Yes (100%) |

Max. Invoice Price : 150,000.00
Invoiced Amount ? : 0.00

State ? : Open

Figure 11.1: *Setting up an analytic account*

- the *Account Type* : just like general accounts, the `View` type is used for virtual accounts which are used only to create a hierarchical structure and for subtotals, and not to store accounting entries,
- the *Parent Analytic Account* : defines the hierarchy between the accounts.

If the project is for a limited time you can define a start and end date here. The *State* field is used to indicate whether the project is running (`Open`), waiting for information from the client (`Pending`), `Draft` or `Closed`.

Finally, if the analytic account is a client project you can complete the fields about the partner, which you would need so that you can invoice the partner:

- the *Partner*,
- a *Sale Pricelist*, which shows how services linked to the project should be charged,
- a *Max. Invoice Price*, showing the maximum invoice price regardless of actual overspend,
- a *Maximum Quantity*, for contracts with a fixed limit of hours to use,
- an *Invoicing Rate per Journal* field, which defines an invoicing rate and whether the project should be invoiced automatically from the services represented by the costs in the analytic account.

**Invoicing**

You have several methods available to you in OpenERP for automated invoicing:

- Service companies usually use invoicing from purchase orders, analytic accounts or project management tasks.
- Manufacturing and trading companies more often use invoicing from deliveries or customer purchase orders.

Once you have defined the different analytic accounts, you can view your chart through the menu *Accounting → Charts → Chart of Analytic Accounts*.

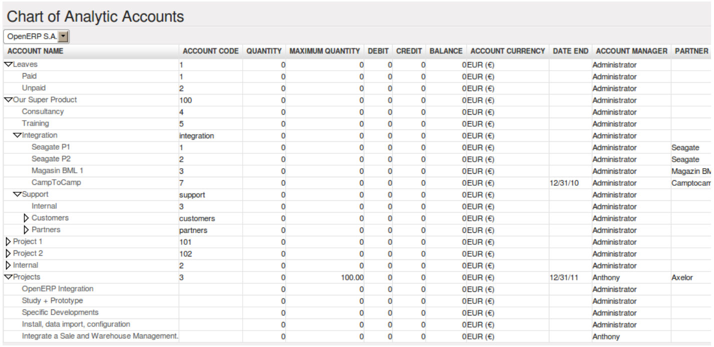


Chart of Analytic Accounts

OpenERP S.A.

| ACCOUNT NAME | ACCOUNT CODE | QUANTITY | MAXIMUM QUANTITY | DEBIT | CREDIT | BALANCE | ACCOUNT CURRENCY | DATE END | ACCOUNT MANAGER | PARTNER |
|---|---|---|---|---|---|---|---|---|---|---|
| ▽Leaves | 1 | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| Paid | 1 | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| Unpaid | 2 | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| ▽Our Super Product | 100 | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| Consultancy | 4 | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| Training | 5 | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| ▽Integration | integration | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| Seagate P1 | 1 | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | Seagate |
| Seagate P2 | 2 | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | Seagate |
| Magasin BML 1 | 3 | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | Magazin BM |
| CampToCamp | 7 | 0 | 0 | 0 | 0 | 0 | EUR (€) | 12/31/10 | Administrator | Camptocam |
| ▽Support | support | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| Internal | 3 | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| ▷ Customers | customers | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| ▷ Partners | partners | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| ▷ Project 1 | 101 | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| ▷ Project 2 | 102 | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| ▷ Internal | 2 | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| ▽Projects | 3 | 0 | 100.00 | 0 | 0 | 0 | EUR (€) | 12/31/11 | Anthony | Axelor |
| OpenERP Integration | | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| Study + Prototype | | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| Specific Developments | | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| Install, data import, configuration | | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Administrator | |
| Integrate a Sale and Warehouse Management. | | 0 | 0 | 0 | 0 | 0 | EUR (€) | | Anthony | |

Figure 11.2: *Example of an analytic chart for projects*

**Setting up an Analytic Account**

The setup screen for an analytic account can vary greatly depending on the modules installed in your database. For example, you will see information about recharging services only if you have the module `hr_timesheet_invoice` installed.

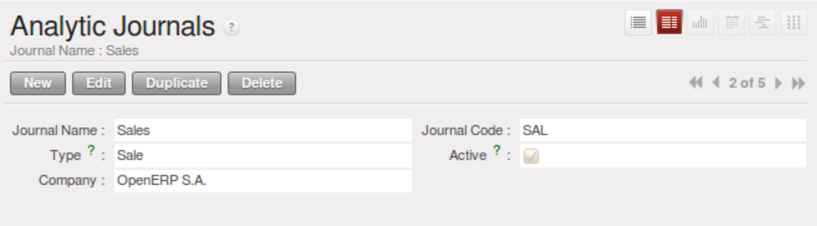
Some of these modules add helpful management statistics to the analytic account. The most useful is probably the module `account_analytic_analysis`, which adds such information as indicators about your margins, invoicing amounts, and latest service dates and invoice dates.

### 11.2.2 Creating Journals

Once the analytic chart has been created for your company you have to create the different journals. These enable you to categorize the different accounting entries by their type:

- services,
- expense reimbursements,
- purchases of materials,
- miscellaneous expenditure,
- sales,
- situation entries (special situations, such as installation of the software).

> **Minimal Journals**
>
> At a minimum, you have to create one analytic journal for Sales and one for Purchases. If you do not create these two, OpenERP will not validate invoices linked to an analytic account, because it would not be able to create an analytic accounting entry automatically.



Journal Name : Sales

Journal Name : Sales

Type : Sale

Company : OpenERP S.A.

Journal Code : SAL

Active : ☑

Figure 11.3: *Creating an analytic journal*

To define your analytic journals, use the menu *Accounting* → *Configuration* → *Analytic Accounting* → *Analytic Journals* then click *New*.

It is easy to create an analytic journal. Just give it a *Journal Name*, a *Journal Code* and a *Type*. The types available are:

- `Sales` , for sales to customers and for credit notes,
- `Purchases` , for purchases and miscellaneous expenses,
- `Cash` , for financial entries,
- `Situation` , to adjust accounts when starting an activity, or at the end of the financial year,
- `General` , for all other entries.

The type of journal enables the software to automatically select the analytic journal based on the nature of the operation. For example, if you enter an invoice for a customer, OpenERP will automatically search for an analytic journal of type `Sales` .

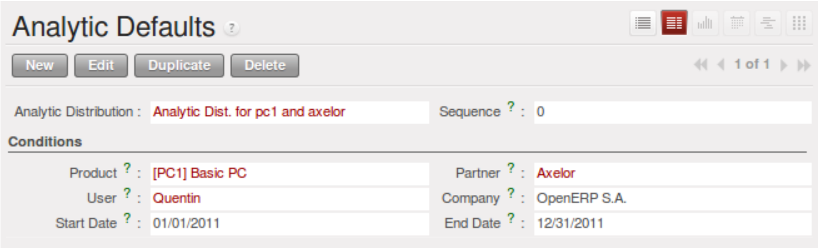
### 11.2.3 Working with Analytic Levels

You can work with analytic levels using OpenERP by installing `account_analytic_default` module.

It allows you to automatically select analytic accounts based on some criteria:

- Product
- Partner
- User
- Company
- Date

You can configure these criteria using the menu *Accounting* → *Configuration* → *Analytic Accounting* → *Analytic Defaults* and click the *New* button.



Analytic Distribution : Analytic Dist. for pc1 and axelor
Sequence ? : 0

**Conditions**

Product ? : [PC1] Basic PC
Partner ? : Axelor
User ? : Quentin
Company ? : OpenERP S.A.
Start Date ? : 01/01/2011
End Date ? : 12/31/2011

Figure 11.4: *Specify criteria to select analytic account automatically*

## 11.3 Analytic Entries

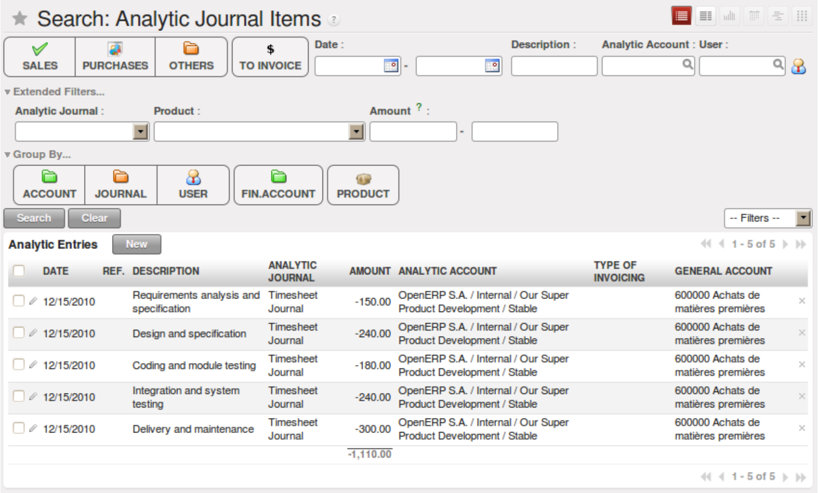
### 11.3.1 Integrated with General Accounting

Just as in general accounting, analytic entries must belong to an account and an analytic journal.

Analytic records can be distinguished from general records by the following characteristics:

- they are not necessarily legal accounting documents,
- they do not necessarily belong to an existing accounting period,
- they are managed according to their date and not an accounting period,

- they do not generate both a debit and a credit entry, but a positive amount (income) or a negative amount (cost).


Search: Analytic Journal Items
SALES
PURCHASES
OTHERS
$ TO INVOICE
Date :
Description :
Analytic Account :
User :
Extended Filters...
Analytic Journal :
Product :
Amount ? :
Group By...
ACCOUNT
JOURNAL
USER
FIN.ACCOUNT
PRODUCT
Search
Clear
-- Filters --
Analytic Entries
New
1 - 5 of 5

| DATE | REF. | DESCRIPTION | ANALYTIC JOURNAL | AMOUNT | ANALYTIC ACCOUNT | TYPE OF INVOICING | GENERAL ACCOUNT |
|---|---|---|---|---|---|---|---|
| 12/15/2010 | | Requirements analysis and specification | Timesheet Journal | -150.00 | OpenERP S.A. / Internal / Our Super Product Development / Stable | | 600000 Achats de matières premières |
| 12/15/2010 | | Design and specification | Timesheet Journal | -240.00 | OpenERP S.A. / Internal / Our Super Product Development / Stable | | 600000 Achats de matières premières |
| 12/15/2010 | | Coding and module testing | Timesheet Journal | -180.00 | OpenERP S.A. / Internal / Our Super Product Development / Stable | | 600000 Achats de matières premières |
| 12/15/2010 | | Integration and system testing | Timesheet Journal | -240.00 | OpenERP S.A. / Internal / Our Super Product Development / Stable | | 600000 Achats de matières premières |
| 12/15/2010 | | Delivery and maintenance | Timesheet Journal | -300.00 | OpenERP S.A. / Internal / Our Super Product Development / Stable | | 600000 Achats de matières premières |
| | | | | -1,110.00 | | | |

Figure 11.5: *Analytic account records for a customer project*

The figure *Analytic account records for a customer project* (page 111) represents the entries on an analytic account for a customer project.

You can see there:

- the service costs for staff working on the project,
- the costs for reimbursing the expenses of a return journey to the customer,
- purchases of goods that have been delivered to the customer,
- sales for recharging these costs.

## 11.3.2 Manual Entries

Even though most analytic entries are produced automatically by the other OpenERP documents, it is sometimes necessary to make manual record entries. It is usually needed for certain analytic operations that have no counterpart in the general accounts.

To make manual record entries, use the menu *Accounting* → *Journal Entries* → *Analytic Journal Items* and click the *New* button.

> **Analytic Entries**
>
> To make an analytic entry, OpenERP asks you to specify a general account. This is given only for information in the different cross-reports. It will not create any new entries in the general accounts.

Select a journal and complete the different fields. Write an expense as a negative amount and income as a positive amount.

**Entering a Date**

To enter a date in the editable list you can use the calendar widget in the web client or, in the GTK client, if you enter just the day of the month OpenERP automatically completes the month and year when you press the `Tab` key.

**Example Cost Redistribution** One of the uses of manual data entry for analytic operations is reallocation of costs. For example, if a development has been done for a given project but can be used again for another project, you can reallocate part of the cost to the other project.

In this case, make a positive entry on the first account and a negative entry for the same amount on the account of the second project.

### Automated Entries

Analytic accounting is totally integrated with the other OpenERP modules, so you never have to re-enter the records. They are automatically generated by the following operations:

- confirmation of an invoice generates analytic entries for sales or purchases connected to the account shown in the invoice line,
- the entry of a service generates an analytic entry for the cost of this service to the given project,
- the manufacture of a product generates an entry for the manufacturing cost of each operation in the product range.

Other documents linked to one of these three operations produce analytic records indirectly. For example, when you are entering a customer sales order, you can link it to the customer's analytic account. When you are managing by case or project, mark the project with that order. This order will then generate a customer invoice, which will be linked to the analytic account. When the invoice is validated, it will automatically create general and analytic accounting records for the corresponding project.

Expense receipts from an employee can be linked to an analytic account for reimbursement. When a receipt is approved by the company, a purchase invoice is created. This invoice represents a debit on the company in favour of the employee. Each line of the purchase invoice is then linked to an analytic account which automatically allocates the costs for that receipt to the corresponding project.

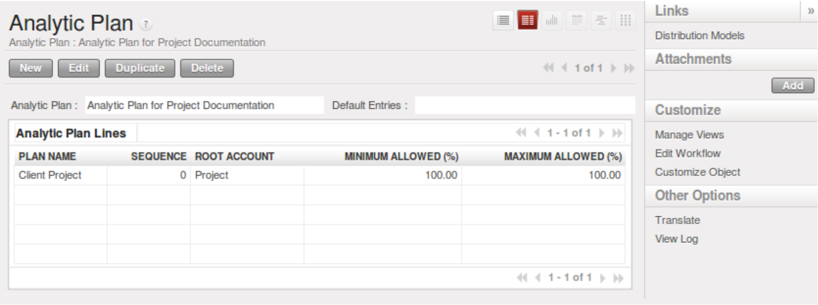
To visualize the general entries following these different actions, you can use one of the following menus:

1. To see all of the entries, *Accounting* → *Journal Entries* → *Analytic Journal Items*

2. To see the entries per account, per user, per product or per partner, you can use the menu *Accounting* → *Reporting* → *Statistic Reports* → *Analytic Entries Analysis*.

### 11.3.3 Analytic Models

Using the *Analytic Model* concept, you can distribute your income or expense to your analytic accounts. You can define your analytic plans using the menu *Accounting* → *Configuration* → *Analytic Accounting* → *Multi Plans* → *Analytic Plan.*


Analytic Plan
New
Edit
Duplicate
Delete
1 of 1
Links
Distribution Models
Attachments
Add
Customize
Manage Views
Edit Workflow
Customize Object
Other Options
Translate
View Log
1 - 1 of 1

Analytic Plan : Analytic Plan for Project Documentation

Analytic Plan : Analytic Plan for Project Documentation

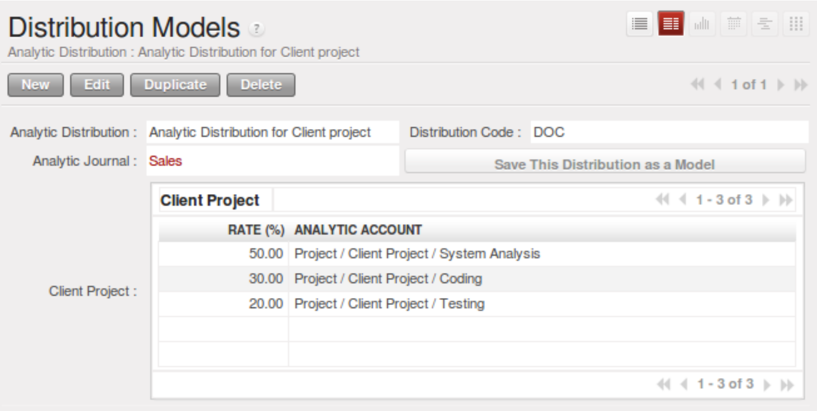
Default Entries :

**Analytic Plan Lines**

| PLAN NAME | SEQUENCE | ROOT ACCOUNT | MINIMUM ALLOWED (%) | MAXIMUM ALLOWED (%) |
|---|---|---|---|---|
| Client Project | 0 | Project | 100.00 | 100.00 |

Figure 11.6: *Definition of Analytic Plan*

Using the link *Distribution Models* given on right side of the *Analytic Plan* form, you can define the distribution of either your expenses while creating supplier invoice, or revenue when defining customer invoices.


Distribution Models
New
Edit
Duplicate
Delete
1 of 1
Save This Distribution as a Model
1 - 3 of 3

Analytic Distribution : Analytic Distribution for Client project

Analytic Distribution : Analytic Distribution for Client project

Distribution Code : DOC

Analytic Journal : Sales

Client Project :

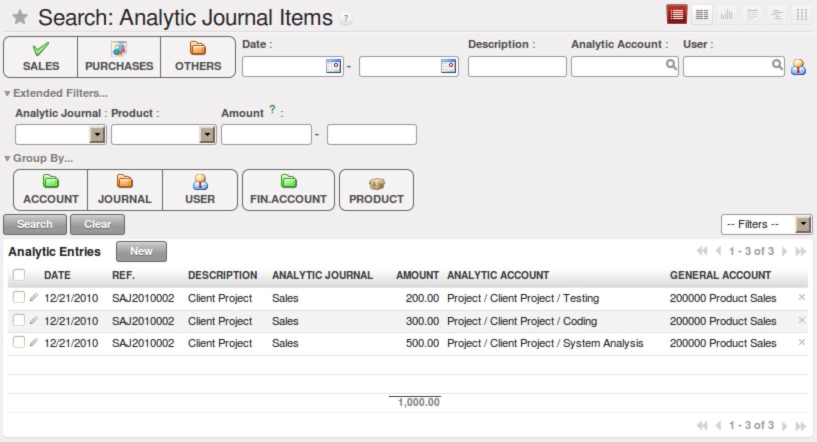
**Client Project**

| RATE (%) | ANALYTIC ACCOUNT |
|---|---|
| 50.00 | Project / Client Project / System Analysis |
| 30.00 | Project / Client Project / Coding |
| 20.00 | Project / Client Project / Testing |

Figure 11.7: *Definition of Distribution Models*

For example, when you create the invoice (suppose 1000 EUR) for the product `Client Project` with analytic distribution that we defined as above.

When the invoice has been validated, you can find the Analytic Journal Entries with distributed amount among the analytic accounts using the menu *Accounting* → *Journal Entries* → *Analytic Journal Items.*


Search: Analytic Journal Items
SALES
PURCHASES
OTHERS
Date :
Description :
Analytic Account :
User :
Extended Filters...
Analytic Journal :
Product :
Amount :
Group By...
ACCOUNT
JOURNAL
USER
FIN.ACCOUNT
PRODUCT
Search
Clear
-- Filters --
New
1 - 3 of 3

Analytic Entries

| DATE | REF. | DESCRIPTION | ANALYTIC JOURNAL | AMOUNT | ANALYTIC ACCOUNT | GENERAL ACCOUNT |
|---|---|---|---|---|---|---|
| 12/21/2010 | SAJ2010002 | Client Project | Sales | 200.00 | Project / Client Project / Testing | 200000 Product Sales |
| 12/21/2010 | SAJ2010002 | Client Project | Sales | 300.00 | Project / Client Project / Coding | 200000 Product Sales |
| 12/21/2010 | SAJ2010002 | Client Project | Sales | 500.00 | Project / Client Project / System Analysis | 200000 Product Sales |
| | | | | 1,000.00 | | |

Figure 11.8: *Journal Entries with distributed amount*

You can also specify default *Analytic Distribution* for a particular product, partner, user and company for specific time interval using the menu *Accounting* → *Configuration* → *Analytic Accounting* → *Analytic Defaults.*

## 11.4 Financial Analysis

Various reports designed for financial analysis are based on the analytic accounts. Most of those are available directly from the tree of accounts or from the form view of the account.

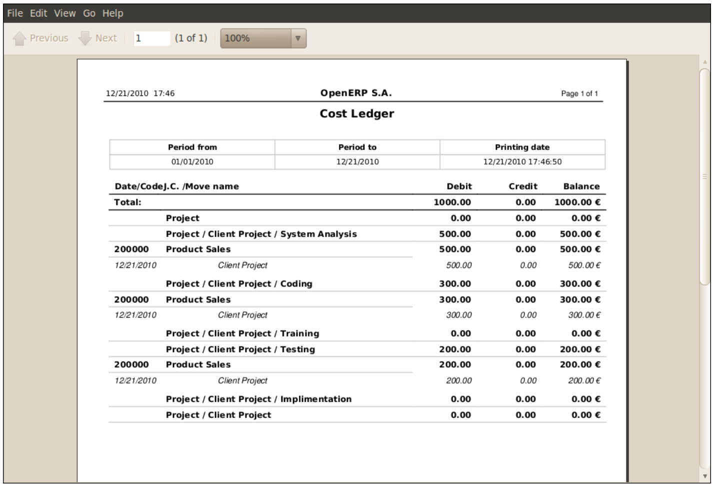
### 11.4.1 Analysis per Account

From an *Analytic Account* form, click on one of the *REPORTS* buttons to select a report. OpenERP provides the following financial analyses from the analytic accounts (and maybe more, depending on the additional installed modules):

- *Cost Ledger*,
- *Cost Ledger (quantities only)*.
- *Inverted Analytic Balance*,
- *Analytic Balance*,

#### The Cost Ledger

The cost ledger provides all of the detailed entries for the selected accounts. It enables you to make a detailed analysis of each operation carried out on one or several projects.



12/21/2010 17:46 **OpenERP S.A.** Page 1 of 1

**Cost Ledger**

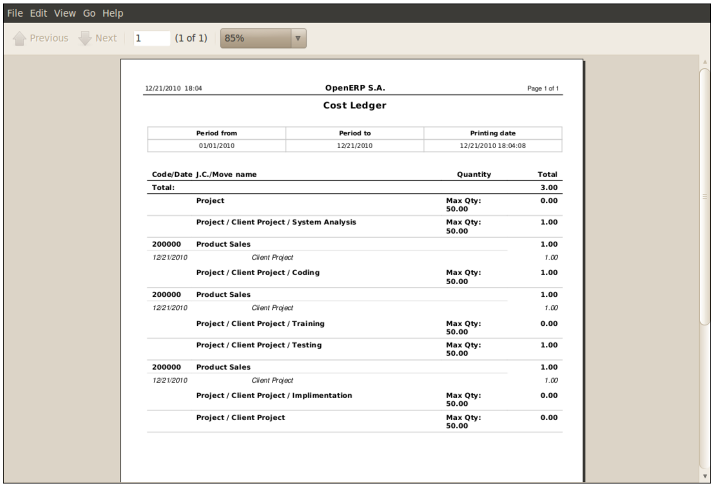
| Period from | Period to | Printing date |
|---|---|---|
| 01/01/2010 | 12/21/2010 | 12/21/2010 17:46:50 |

| Date/Code | J.C. /Move name | Debit | Credit | Balance |
|---|---|---|---|---|
| **Total:** | | **1000.00** | **0.00** | **1000.00 €** |
| | **Project** | **0.00** | **0.00** | **0.00 €** |
| | **Project / Client Project / System Analysis** | **500.00** | **0.00** | **500.00 €** |
| **200000** | **Product Sales** | **500.00** | **0.00** | **500.00 €** |
| *12/21/2010* | *Client Project* | *500.00* | *0.00* | *500.00 €* |
| | **Project / Client Project / Coding** | **300.00** | **0.00** | **300.00 €** |
| **200000** | **Product Sales** | **300.00** | **0.00** | **300.00 €** |
| *12/21/2010* | *Client Project* | *300.00* | *0.00* | *300.00 €* |
| | **Project / Client Project / Training** | **0.00** | **0.00** | **0.00 €** |
| | **Project / Client Project / Testing** | **200.00** | **0.00** | **200.00 €** |
| **200000** | **Product Sales** | **200.00** | **0.00** | **200.00 €** |
| *12/21/2010* | *Client Project* | *200.00* | *0.00* | *200.00 €* |
| | **Project / Client Project / Implimentation** | **0.00** | **0.00** | **0.00 €** |
| | **Project / Client Project** | **0.00** | **0.00** | **0.00 €** |

Figure 11.9: *The analytic cost ledger gives a detailed history of the entries in an analytic account*

### The Cost Ledger (Quantities Only)

This report gives the detail of entries for an analytic account and a list of selected journals. Only quantities are reported for this analysis, not costs and revenues.



12/21/2010 18:04 **OpenERP S.A.** Page 1 of 1

**Cost Ledger**

| Period from | Period to | Printing date |
|---|---|---|
| 01/01/2010 | 12/21/2010 | 12/21/2010 18:04:08 |

| Code/Date | J.C./Move name | Quantity | Total |
|---|---|---|---|
| **Total:** | | | **3.00** |
| | **Project** | **Max Qty: 50.00** | **0.00** |
| | **Project / Client Project / System Analysis** | **Max Qty: 50.00** | **1.00** |
| **200000** | **Product Sales** | | **1.00** |
| *12/21/2010* | *Client Project* | | *1.00* |
| | **Project / Client Project / Coding** | **Max Qty: 50.00** | **1.00** |
| **200000** | **Product Sales** | | **1.00** |
| *12/21/2010* | *Client Project* | | *1.00* |
| | **Project / Client Project / Training** | **Max Qty: 50.00** | **0.00** |
| | **Project / Client Project / Testing** | **Max Qty: 50.00** | **1.00** |
| **200000** | **Product Sales** | | **1.00** |
| *12/21/2010* | *Client Project* | | *1.00* |
| | **Project / Client Project / Implimentation** | **Max Qty: 50.00** | **0.00** |
| | **Project / Client Project** | **Max Qty: 50.00** | **0.00** |

Figure 11.10: *The cost ledger (quantities only) gives a history of an analytic account*

The report is often used to print the number of hours worked on a project, without exposing the costs and revenues. So you can show it to a client as a record of the hours worked on a particular project.

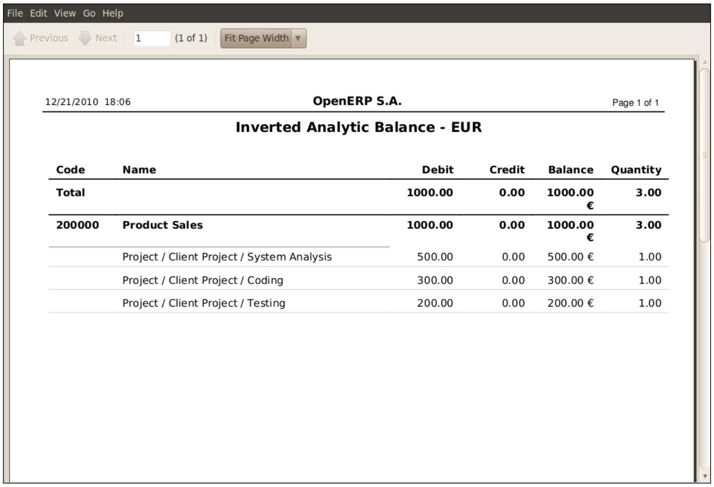
To restrict the report to hours worked, without including sales and purchases, select only the services journal for printing.

**Multiple Printing**

To print several analytic accounts at once, you can make a multiple selection on the different accounts in the tree of accounts. Then click on the appropriate *Report* in the toolbar (in the web client), or select one of the *Print* reports (in the GTK client), to export the whole selection into a single PDF document.

### Inverted Analytic Balance

The inverted analytic balance provides a summary report relating general accounts and analytic accounts. This report shows the balances of the general accounts broken down by the selected analytic accounts for a selected period.



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**Inverted Analytic Balance - EUR**

| Code | Name | Debit | Credit | Balance | Quantity |
|---|---|---|---|---|---|
| **Total** | | **1000.00** | **0.00** | **1000.00 €** | **3.00** |
| **200000** | **Product Sales** | **1000.00** | **0.00** | **1000.00 €** | **3.00** |
| | Project / Client Project / System Analysis | 500.00 | 0.00 | 500.00 € | 1.00 |
| | Project / Client Project / Coding | 300.00 | 0.00 | 300.00 € | 1.00 |
| | Project / Client Project / Testing | 200.00 | 0.00 | 200.00 € | 1.00 |

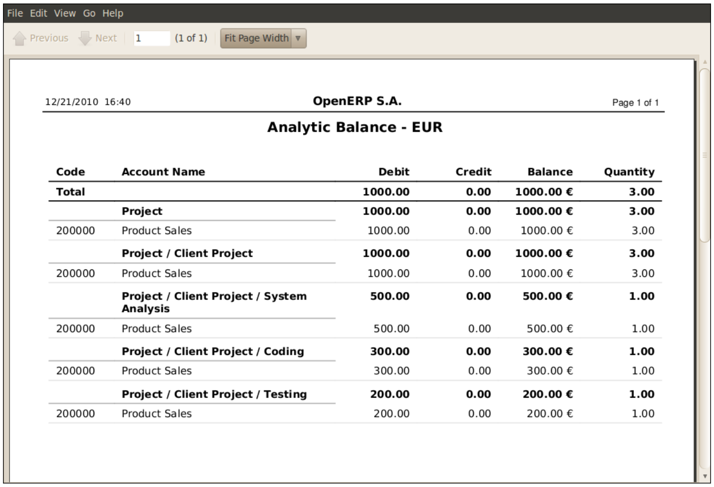
Figure 11.11: *The inverted analytic balance shows a breakdown of operations by analytic account (project)*

This enables you to analyze your costs by general account. For example, if you examine your general account for staff salaries, you can obtain all your salary costs broken down by the different analytic (or project) accounts.

### Analytic Balance

The analytic balance is a summary report that relates the analytic accounts to the general accounts. It shows the balances of the analytic accounts broken down by general account for a selected period.

This report is useful for analyzing the profitability of projects, giving you the profitability of a project for the different operations that you used to carry out the project.



12/21/2010 16:40 **OpenERP S.A.** Page 1 of 1

**Analytic Balance - EUR**

| Code | Account Name | Debit | Credit | Balance | Quantity |
|---|---|---|---|---|---|
| **Total** | | **1000.00** | **0.00** | **1000.00 €** | **3.00** |
| | **Project** | **1000.00** | **0.00** | **1000.00 €** | **3.00** |
| 200000 | Product Sales | 1000.00 | 0.00 | 1000.00 € | 3.00 |
| | **Project / Client Project** | **1000.00** | **0.00** | **1000.00 €** | **3.00** |
| 200000 | Product Sales | 1000.00 | 0.00 | 1000.00 € | 3.00 |
| | **Project / Client Project / System Analysis** | **500.00** | **0.00** | **500.00 €** | **1.00** |
| 200000 | Product Sales | 500.00 | 0.00 | 500.00 € | 1.00 |
| | **Project / Client Project / Coding** | **300.00** | **0.00** | **300.00 €** | **1.00** |
| 200000 | Product Sales | 300.00 | 0.00 | 300.00 € | 1.00 |
| | **Project / Client Project / Testing** | **200.00** | **0.00** | **200.00 €** | **1.00** |
| 200000 | Product Sales | 200.00 | 0.00 | 200.00 € | 1.00 |

Figure 11.12: *The analytic balance shows a breakdown of each project by operation in the financial accounts*

> **Multi-company**
>
> In a multi-company environment, each company can have its own general chart of accounts on the same database. The two general charts of accounts are independent, but can be linked in a third chart using a view account to do the consolidation.
>
> If the different companies collaborate on joint projects, they may all share the same analytic chart of accounts. In this environment, the cross-related reports like the balance and inverted balance are extremely useful, because they enable you to make an analysis per company by linking up to the general accounts.

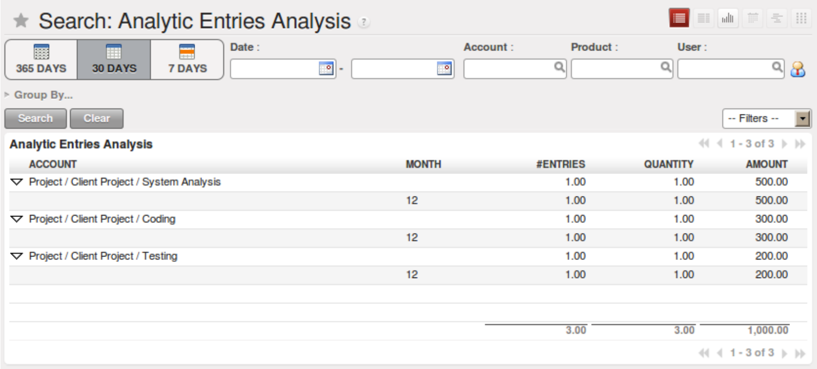
### Analytic Entries Analysis

You can have the statistical analysis on all analytic entries from the menu *Accounting* → *Reporting* → *Statistic Reports* → *Analytic Entries Analysis*.

## 11.4.2 Key Indicators

If you use analytic accounts with a structure of accounts by project client, you should install the `account_analytic_analysis` module. This module adds three new tabs to the analytic account form:

- management indicators in the *Analysis summary* tab,
- monthly statistics in the *Stats by month* tab,

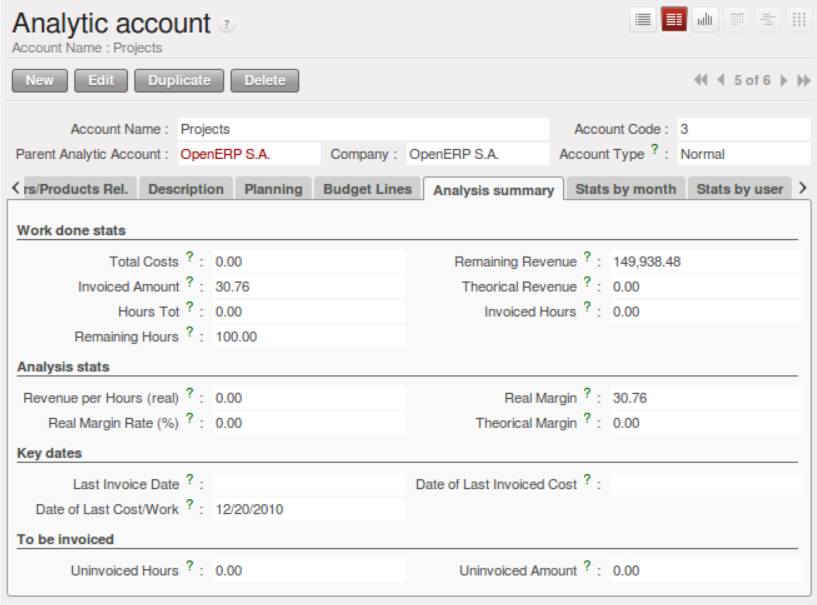

Search: Analytic Entries Analysis
365 DAYS
30 DAYS
7 DAYS
Date :
Account :
Product :
User :
Group By...
Search
Clear
-- Filters --
1 - 3 of 3

Analytic Entries Analysis

| ACCOUNT | MONTH | #ENTRIES | QUANTITY | AMOUNT |
|---|---|---|---|---|
| Project / Client Project / System Analysis | | 1.00 | 1.00 | 500.00 |
| | 12 | 1.00 | 1.00 | 500.00 |
| Project / Client Project / Coding | | 1.00 | 1.00 | 300.00 |
| | 12 | 1.00 | 1.00 | 300.00 |
| Project / Client Project / Testing | | 1.00 | 1.00 | 200.00 |
| | 12 | 1.00 | 1.00 | 200.00 |
| | | 3.00 | 3.00 | 1,000.00 |

Figure 11.13: *Statistical report for analytic entries*

- statistics on each user in the *Stats by user* tab.


Analytic account
Account Name : Projects
New
Edit
Duplicate
Delete
5 of 6
rs/Products Rel.
Description
Planning
Budget Lines
Analysis summary
Stats by month
Stats by user

Account Name : Projects

Account Code : 3

Parent Analytic Account : OpenERP S.A.

Company : OpenERP S.A.

Account Type : Normal

**Work done stats**

Total Costs : 0.00

Remaining Revenue : 149,938.48

Invoiced Amount : 30.76

Theorical Revenue : 0.00

Hours Tot : 0.00

Invoiced Hours : 0.00

Remaining Hours : 100.00

**Analysis stats**

Revenue per Hours (real) : 0.00

Real Margin : 30.76

Real Margin Rate (%) : 0.00

Theorical Margin : 0.00

**Key dates**

Last Invoice Date :

Date of Last Invoiced Cost :

Date of Last Cost/Work : 12/20/2010

**To be invoiced**

Uninvoiced Hours : 0.00

Uninvoiced Amount : 0.00

Figure 11.14: *Management indicators for an analytic account*

The figure *Management indicators for an analytic account* (page 118) shows all of the management indicators.

These indicators enable you to quickly see such important information as:

- project profitability,
- whether you can still invoice any services to the client, or not,
- the amount of services to invoice,

- the different margin figures.

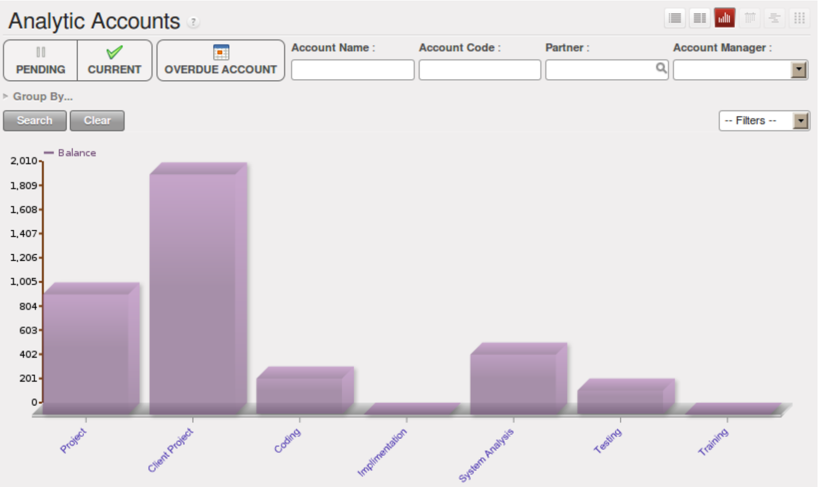
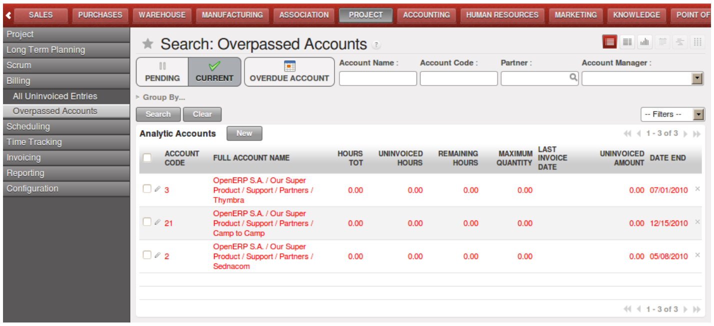

Analytic Accounts
PENDING
CURRENT
OVERDUE ACCOUNT
Account Name :
Account Code :
Partner :
Account Manager :
Group By...
Search
Clear
-- Filters --
Balance
2,010
1,809
1,608
1,407
1,206
1,005
804
603
402
201
0
Project
Client Project
Coding
Implementation
System Analysis
Testing
Training

Figure 11.15: *Breakdown of monthly costs for an analytic account*

The real revenue is given by the amount invoiced to the client. The theoretical revenue is given by the sale price of different project costs which could be invoiced to the client. These give different margin figures.

For example, in the case of a fixed price project contract, the real sale price at the end of the project will be equal to the contract negotiated with the client. The theoretical price gives the amount that would have been invoiced if you had charged for all the time worked.

To give project managers a direct view of their different projects, the `account_analytic_analysis` module creates new menus in the Project management module in *Project* → *Billing* → *Overpassed Accounts*.


SALES
PURCHASES
WAREHOUSE
MANUFACTURING
ASSOCIATION
PROJECT
ACCOUNTING
HUMAN RESOURCES
MARKETING
KNOWLEDGE
POINT OF
Project
Long Term Planning
Scrum
Billing
All Uninvoiced Entries
Overpassed Accounts
Scheduling
Time Tracking
Invoicing
Reporting
Configuration
Search: Overpassed Accounts
PENDING
CURRENT
OVERDUE ACCOUNT
Account Name :
Account Code :
Partner :
Account Manager :
Group By...
Search
Clear
-- Filters --
Analytic Accounts
New
1 - 3 of 3

| ACCOUNT CODE | FULL ACCOUNT NAME | HOURS TOT | UNINVOICED HOURS | REMAINING HOURS | MAXIMUM QUANTITY | LAST INVOICE DATE | UNINVOICED AMOUNT | DATE END |
|---|---|---|---|---|---|---|---|---|
| 3 | OpenERP S.A. / Our Super Product / Support / Partners / Thymbra | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 07/01/2010 |
| 21 | OpenERP S.A. / Our Super Product / Support / Partners / Camp to Camp | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 12/15/2010 |
| 2 | OpenERP S.A. / Our Super Product / Support / Partners / Sednacom | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | 05/08/2010 |

Figure 11.16: *Analytic accounts in Project Management*

These different menus give quick views that are useful for live projects. For each project, you can check if there are uninvoiced services, see the last invoice date and the last uninvoiced service date, and get reports on the amounts received and those planned. So project managers have all the information necessary to manage their project, shown in a single page.

In the following chapters you will see how project managers can use this information to carry out the various operations needed to manage the project, such as automatic invoicing, project planning, keeping customers up-to-date, and budgeting for resources.

**Analytic Budgets**

Analytic budgets can be budgeted in the `account_budget` module. They offer:

- forecasting projects in the medium term,
- controlling project costs,
- comparisons with general accounts.

# Part IV

# Process

# Integrated Document Management

# 12

*Information management has become a major strategic factor in companies' development. It is important to get the right information circulated to the right people, as efficiently as possible, yet still keep it secure. Document management provides a way for companies to organize their information, in all its forms, in one place.*

The objectives of document management include easier archiving, access and reference, intelligent classification and distribution of documents and the information they contain. It concerns sets of all sorts of company documents such as work procedures, meeting reports, documents received from customers and suppliers, documents sent to customers, faxes, sales presentations and product datasheets.

For this chapter you should start with a fresh database that includes demo data, with `sale`, `document` and their dependencies installed and no particular chart of accounts configured.

## 12.1 The Importance of Good Document Management

Globalization means that workplaces are ever more geographically dispersed. This means that documents are also used more than ever by people in several countries and continents for communicating and collaborating.

You will see communication problems even between employees in the same office because they do not have easy access to the documents that they need. You find some documents kept by someone in the accounts office, shared directories that serve everybody, some documents in paper form, others in electronic form – quite a free-for-all.

An explosion in the number of documents that a company needs does not help. If their storage and indexation are badly organized, these documents become useless because they are almost impossible to find.

The results of poor document management can lead to a significant loss of time. Ask yourself how often you find yourself looking for:

- A supplier catalogue that has been sent to a purchasing manager,
- A customer contract signed several months ago,
- The final set of Terms and Conditions offered to a specific customer,
- The documents required for employing a new member of staff,
- An order confirmation sent by a customer to one of your salespeople or, perhaps even more common, when the relevant salesperson has gone on vacation, if you ever received such an order confirmation,

- A procedure from your quality manual if there has been a process fault,
- An email which was sent to one of your colleagues,
- A document that you need to be a template for a specific type of contract,
- A complete history of communications between yourselves and a supplier about a given contract.

Even worse than the loss of time, perhaps, the lack of good document management is bad for the quality of your organization and the service provided by your company. In such a company it is likely that:

- sets of documents do not follow a standard layout,
- all the salespeople prepare quotations in their own way and gradually change the way they do it for themselves but not for the group,
- a correction to a type of contract stays with a small group of people and does not percolate back into the rest of the company to benefit other users,
- version management is chaotic or even non-existent.

So a good integrated document management system can be a powerful tool to help in day-to-day company management. With it you could also easily:

- Continue the work started by a colleague if she has gone on vacation, and respond to her customers if needed,
- Get hold of examples of all document types with just a few clicks, so that you can follow company standards in such areas as order confirmation, price requests, meeting minutes, customer deliverables, contract examples, and models for faxes and letters,
- Retrieve procedures and other associated documents if you do not know how to do a certain task – such as things you should do when hiring a new employee, organizing a conference, or structuring meeting minutes,
- Reuse work done by a colleague to meet similar needs and build on all the individual work done in your own company,
- Find all the orders for a customer or from a supplier in just a few seconds to answer questions or to continue a discussion when the initial contact point in your company is not available,
- Build on your working methods and enable your colleagues to benefit from each improvement in a document type or a procedure.

From these examples you can see the importance of a good document management system, and what it might contribute to the improvement of productivity and the quality of the output from each employee.

## 12.2 Classic Document Management Solutions

Faced with the need to organize documents, companies have looked at a number of document management solutions that are promoted today, from simple email archiving to complete electronic management systems dedicated to arbitrary documents.

Unfortunately, these solutions have not always been very useful because they are too little integrated in companies' management systems. Most solutions that we have come across, are underused by the employees – often used by some of them but not by all.

The primary reason for this is that a document management system that is not integrated imposes extra work on an employee. For example, a salesperson should ideally save each customer confirmation in the document management system. Only that means quite a heavy additional workload just for an order confirmation:

1. Receive and read the email from the customer,
2. Save the email and its attachments on the desktop,
3. Connect to the ERP system and confirm the order,
4. Connect to the document management system,
5. Look for the best place to store the document,
6. Create a directory for the customer and the order if it does not yet exist,
7. Copy the files from the desktop to the right place in the document management system.

This is obviously a lot of operations just to handle a simple order confirmation. You can understand why many companies hardly use their document management system even if they have gone to the cost and effort of purchasing and installing one.

**Free Document Management Systems**

A number of free document management applications exist. The most well known are:

- Alfresco: http://www.alfresco.com
- Quotero: http://www.quotero.com

It is very difficult to keep information in the company's management system synchronized with that in the document management system. For example, when a customer changes his address, users will modify the details in the management software, but usually, not in the document management system.

Furthermore, since users should create the same storage structure in both systems, you quickly find after only a few months that the information in the document management system is quite disconnected from that in the company's management system, if the two are separate. For example, how do you know where to store your least-frequently used documents such as (perhaps) employee car-leasing documents? Also, document management systems are typically very complex because they must manage user access rights in just the same way as those that are available in the company management system. This means that you have to enter the same sort of data about access rights twice for the system administrators.

You will see that the total integration of OpenERP's document management system with the main company management system, and plugins to Outlook and Thunderbird email clients, offers an elegant solution that addresses these problems.

## 12.3 The OpenERP Solution

OpenERP's management of documents is unique and totally innovative in its integrated approach. Its complete integration with the company's management system solves most of the problems that are encountered when you use independent document management systems:

- Login and the management of access rights is integrated with that of OpenERP for controlling access to different document types,
- Ultra-rapid access to documents, which are directly accessible through your email client or through the company management software,
- Automatic assignment of meta-information comes directly from information contained in your OpenERP login registration,
- Document workflow, which automatically follows OpenERP's documentation process, provides complete synchronization between the systems,
- Document classification is determined by OpenERP itself so that the structure that is created is always synchronized between the systems,
- Automatic indexation and classification of all documents produced by OpenERP for maximum efficiency.

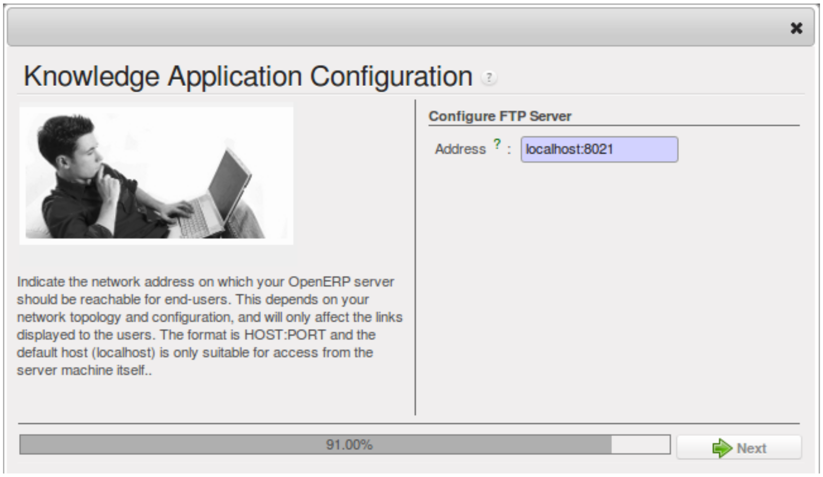
### 12.3.1 Getting Started

This section is about how to get started with the document management system from its installation to advanced use with FTP access.

#### Installation

To install OpenERP's document management system, you just need to install the `document` and `document_ftp` modules through the *Reconfigure* wizard by selecting *Knowledge Management*, and further on, *Shared Repositories (FTP)* for installation. As the module installation proceeds, the system automatically proposes that you configure the FTP server.

Once the module has been installed, you will see a new entry in the main menu called *Knowledge*.



Knowledge Application Configuration

Configure FTP Server

Address: localhost:8021

Indicate the network address on which your OpenERP server should be reachable for end-users. This depends on your network topology and configuration, and will only affect the links displayed to the users. The format is HOST:PORT and the default host (localhost) is only suitable for access from the server machine itself..

Figure 12.1: *Screen for configuring document management*

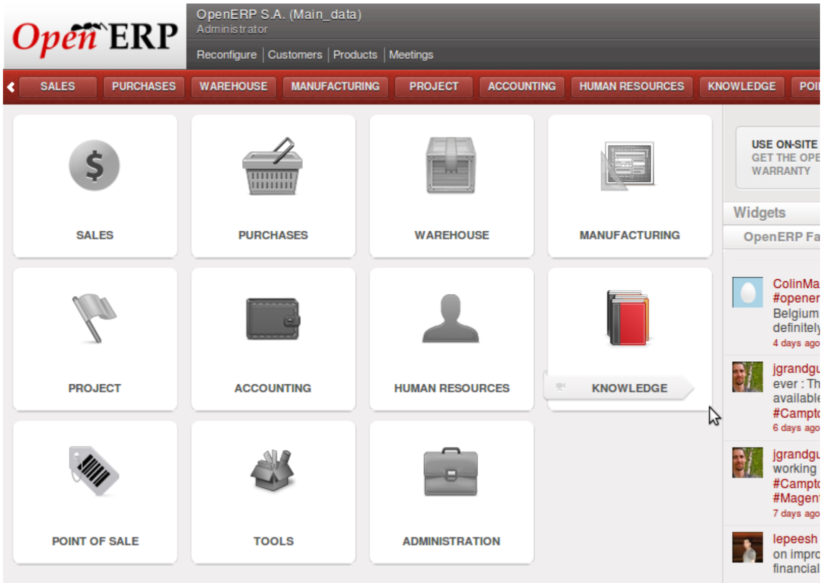
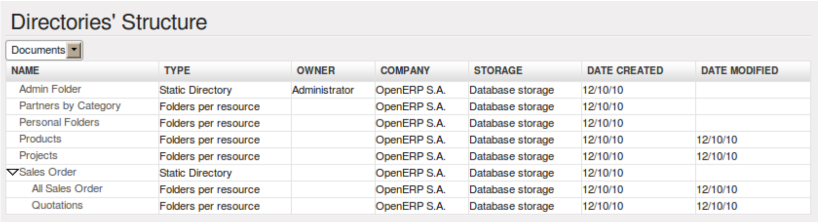

OpenERP
OpenERP S.A. (Main_data)
Administrator
Reconfigure
Customers
Products
Meetings
SALES
PURCHASES
WAREHOUSE
MANUFACTURING
PROJECT
ACCOUNTING
HUMAN RESOURCES
KNOWLEDGE
SALES
PURCHASES
WAREHOUSE
MANUFACTURING
PROJECT
ACCOUNTING
HUMAN RESOURCES
KNOWLEDGE
POINT OF SALE
TOOLS
ADMINISTRATION
USE ON-SITE
WARRANTY
Widgets

Figure 12.2: *The Knowledge menu*

## 12.4 Internal and External Access using FTP

The first configuration step is to create a directory structure that will be used to classify your document set. You can use the structure automatically proposed by OpenERP from the menu *Knowledge* → *Configuration* → *Document Management* → *Directories' Structure*.



Directories' Structure

| NAME | TYPE | OWNER | COMPANY | STORAGE | DATE CREATED | DATE MODIFIED |
|---|---|---|---|---|---|---|
| Admin Folder | Static Directory | Administrator | OpenERP S.A. | Database storage | 12/10/10 | |
| Partners by Category | Folders per resource | | OpenERP S.A. | Database storage | 12/10/10 | |
| Personal Folders | Folders per resource | | OpenERP S.A. | Database storage | 12/10/10 | |
| Products | Folders per resource | | OpenERP S.A. | Database storage | 12/10/10 | 12/10/10 |
| Projects | Folders per resource | | OpenERP S.A. | Database storage | 12/10/10 | 12/10/10 |
| ▽Sales Order | Static Directory | | OpenERP S.A. | Database storage | 12/10/10 | |
| All Sales Order | Folders per resource | | OpenERP S.A. | Database storage | 12/10/10 | 12/10/10 |
| Quotations | Folders per resource | | OpenERP S.A. | Database storage | 12/10/10 | 12/10/10 |

Figure 12.3: *Structure of directories when the document module has been installed*

In addition to the usual access to documents through OpenERP, you will be able to connect to them directly through the file system using the FTP protocol. To connect to the FTP server, use the following address:

| Parameter | Value |
|---|---|
| Server | Your OpenERP server, for example 127.0.0.1 |
| Port | 8021 |
| Path | The '/' character, for the root |
| User | Your user account in OpenERP |
| Password | Your OpenERP password |

**FTP Server**

These comments about an FTP server may appear a bit technical, but it is just a general standard for getting hold of files without worrying too much about the platform (Windows, Mac, Linux, or other Unix-like system). So FTP is just a way of getting access to files without needing to use an OpenERP client. There could have been other ways, but FTP proved itself to the developers to be the one that performed best at lowest cost.

Once you are connected using FTP, you get to the root of a directory for the document management system. Once you enter that directory you find a structure that matches the structure defined in OpenERP.

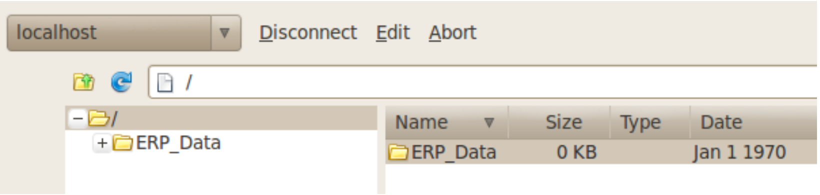

localhost
Disconnect
Edit
Abort
/
/
ERP_Data
Name
Size
Type
Date
ERP_Data
0 KB
Jan 1 1970

Figure 12.4: *Root of the database directory seen through FTP*

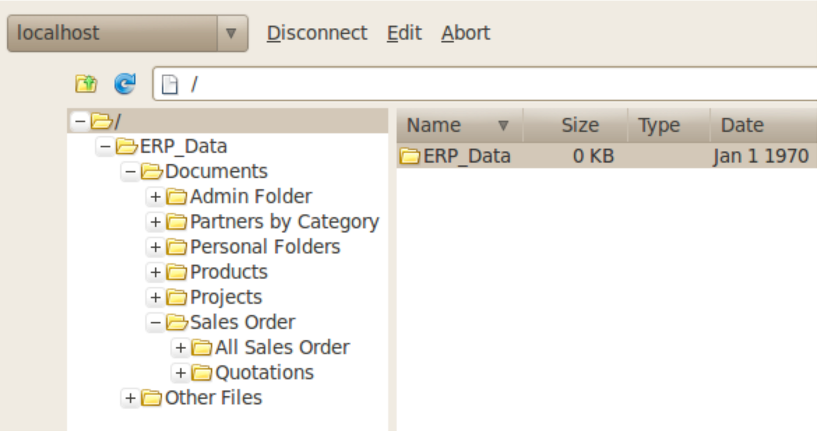

localhost
Disconnect
Edit
Abort
/
/
ERP_Data
Documents
Admin Folder
Partners by Category
Personal Folders
Products
Projects
Sales Order
All Sales Order
Quotations
Other Files
Name
Size
Type
Date
ERP_Data
0 KB
Jan 1 1970

Figure 12.5: *Structure of the directories in the document management system*

## 12.5 Mapping between OpenERP Resources and Directories

Each directory can either have the type `Static` or `Folders per resource`. A static directory, as with operating systems, is the classic directory that can contain a set of files. On the other hand, the directories linked to systems resources automatically possess sub-directories for each of the resource types defined in the parent directory.

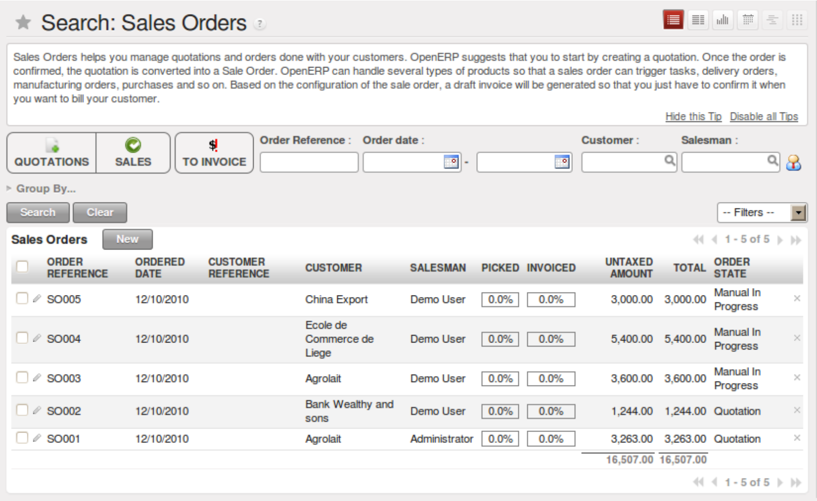
**Directories in English**

To keep them synchronized to the working language, directory names are not translatable. But OpenERP's demonstration data automatically creates directories in English. You can rename them through the menu *Knowledge → Configuration → Document Management → Directories*.

For example, you can look at the directory shown in *Documents → Sales Order → All Sales Order*. You will see the directory for all the orders present in OpenERP that was created automatically by the system.

Directories can follow a tree structure, like the tree of resources in OpenERP. For example, if you go to the directory *Documents → Projects* you will see the structure of the analytic accounts.

To define a directory containing a specific type of resource, you have to define parameters when you


Search: Sales Orders
QUOTATIONS
SALES
TO INVOICE
Group By...
Search
Clear
-- Filters --
New
1 - 5 of 5

Sales Orders helps you manage quotations and orders done with your customers. OpenERP suggests that you to start by creating a quotation. Once the order is confirmed, the quotation is converted into a Sale Order. OpenERP can handle several types of products so that a sales order can trigger tasks, delivery orders, manufacturing orders, purchases and so on. Based on the configuration of the sale order, a draft invoice will be generated so that you just have to confirm it when you want to bill your customer.

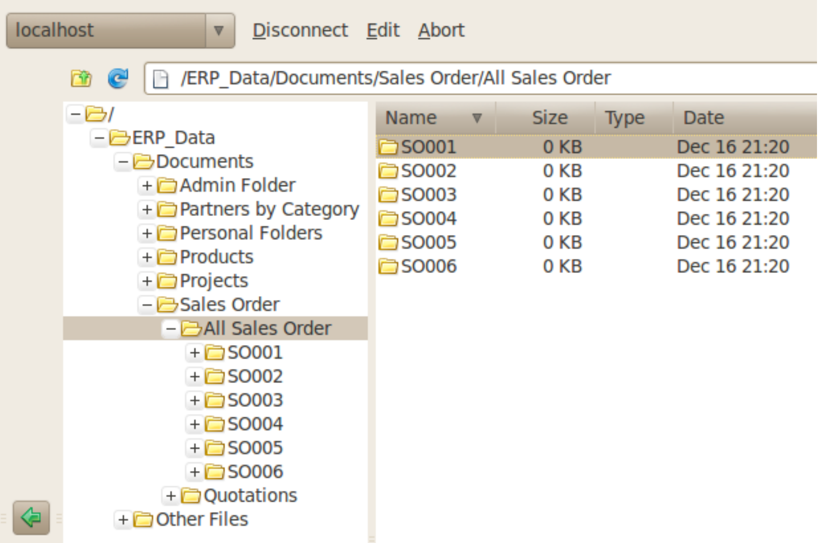
Hide this Tip Disable all Tips

Order Reference :
Order date :
Customer :
Salesman :

Sales Orders

| ☐ | ORDER REFERENCE | ORDERED DATE | CUSTOMER REFERENCE | CUSTOMER | SALESMAN | PICKED | INVOICED | UNTAXED AMOUNT | TOTAL | ORDER STATE |
|---|---|---|---|---|---|---|---|---|---|---|
| ☐ | SO005 | 12/10/2010 | | China Export | Demo User | 0.0% | 0.0% | 3,000.00 | 3,000.00 | Manual In Progress |
| ☐ | SO004 | 12/10/2010 | | Ecole de Commerce de Liege | Demo User | 0.0% | 0.0% | 5,400.00 | 5,400.00 | Manual In Progress |
| ☐ | SO003 | 12/10/2010 | | Agrolait | Demo User | 0.0% | 0.0% | 3,600.00 | 3,600.00 | Manual In Progress |
| ☐ | SO002 | 12/10/2010 | | Bank Wealthy and sons | Demo User | 0.0% | 0.0% | 1,244.00 | 1,244.00 | Quotation |
| ☐ | SO001 | 12/10/2010 | | Agrolait | Administrator | 0.0% | 0.0% | 3,263.00 | 3,263.00 | Quotation |
| | | | | | | | | 16,507.00 | 16,507.00 | |

Figure 12.6: *Orders in OpenERP*


localhost
Disconnect
Edit
Abort
/
ERP_Data
Documents
Admin Folder
Partners by Category
Personal Folders
Products
Projects
Sales Order
All Sales Order
SO001
SO002
SO003
SO004
SO005
SO006
Quotations
Other Files

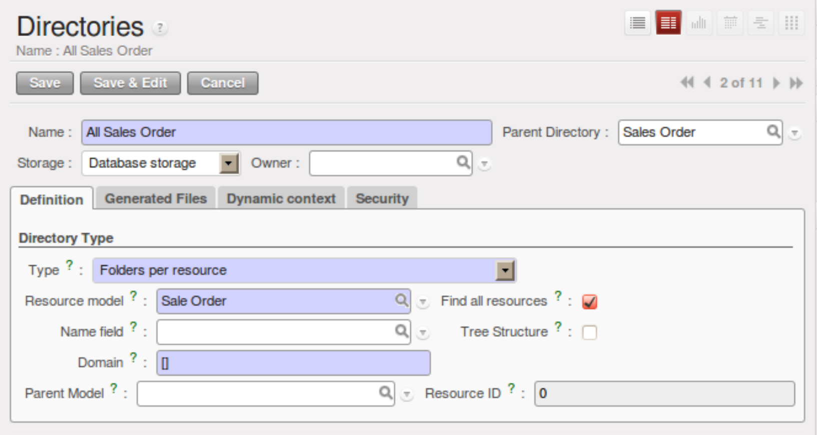
/ERP_Data/Documents/Sales Order/All Sales Order

| Name | Size | Type | Date |
|---|---|---|---|
| SO001 | 0 KB | | Dec 16 21:20 |
| SO002 | 0 KB | | Dec 16 21:20 |
| SO003 | 0 KB | | Dec 16 21:20 |
| SO004 | 0 KB | | Dec 16 21:20 |
| SO005 | 0 KB | | Dec 16 21:20 |
| SO006 | 0 KB | | Dec 16 21:20 |

Figure 12.7: *Directories representing all the orders in the document management system*

define the directory itself:

- *Type* : Folders per resource
- *Resource model* : Choose one of the system objects
- *Domain* : an event filtered so that it sees only a subset of the resources
- *Tree Structure* : to show the resources hierarchically



Name : All Sales Order

Name : All Sales Order
Parent Directory : Sales Order
Storage : Database storage
Owner :

Type ? : Folders per resource
Resource model ? : Sale Order
Find all resources ? : ☑
Name field ? :
Tree Structure ? : ☐
Domain ? : []
Parent Model ? :
Resource ID ? : 0

Figure 12.8: *Configuration of the directory containing All Sales Orders*

This is a very flexible approach because any modification of the resource in OpenERP is automatically reflected in the document management system. So when the quotation gets confirmed in OpenERP the directory no longer appears as a quotation through FTP access.

Here are some examples of directories linked to OpenERP resources that could be helpful when configured in the document management system:

- Quotations and Order: storing documents that relate to orders,
- Products: for storing products’ technical datasheets,
- Users: to automatically define a directory owned by each user of the system,
- Employees: to store documents about employees, such as their CVs, your interview notes, contract details, and their annual assessments,
- Support Requests: storing items about requests or about technical support responses,
- Analytic Accounts or Project: to store project management and tracking documents.

## 12.6 Managing Attachments

As you see, you can connect any directory in the document management system to an OpenERP resource. The system then manages its creation and keeps the directory synchronized with the reports generated by OpenERP from its own data. You do not have to create or rename these directories because OpenERP does all this automatically as it resynchronizes with its own database.

You can then copy the files in the directories that correspond to any of the resources. The files are automatically attached to OpenERP's documents through attachment management. Conversely, if you attach a document to one of OpenERP's resources then that document will automatically become visible over FTP in the document management system.

> **File Storage**
>
> If you do not install the document management system then the files that are attached to an OpenERP resource 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 are stored instead on the OpenERP server filesystem in a directory named 'filestore'.
>
> You can then read and add attachments to OpenERP resources quite independent of the OpenERP interface or the FTP server using simple drag and drop.

## 12.7 Virtual Files

The most well-organized companies keep track of all the documents they have sent to customers in their document management system. It is very useful to be able to retrieve every document about a customer or a project. But the work of storing these documents can itself often take up quite a bit of time for staff. Each report must be saved in the document management system as well as be sent by email to the customer.

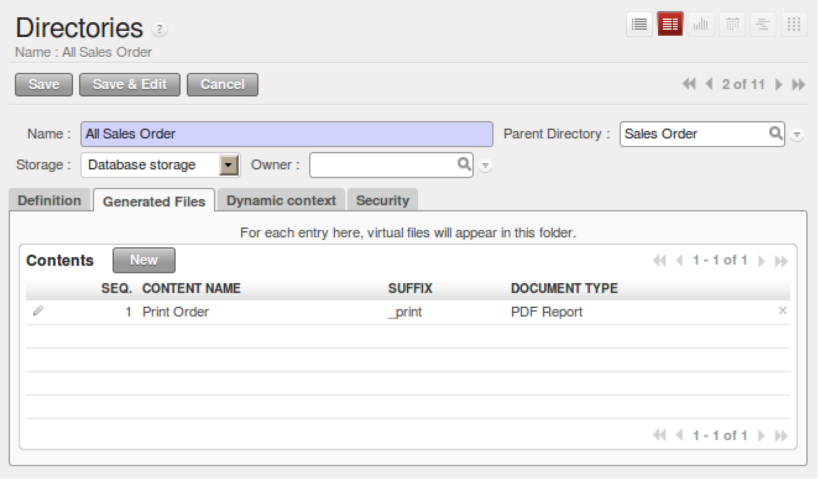
That is not the case in OpenERP. To automatically make OpenERP reports available in the FTP server, OpenERP automatically uses *virtual files*. You can put virtual files into directories that have the special type of *linked resource* and link the virtual files to OpenERP's reports.

**Virtual Files**

Virtual files do not actually exist in OpenERP but are made visible with a size of 0 in the FTP server. Once these files have been read by the client software, OpenERP prints the document related to this file and returns a PDF document linked to the resource.

When you copy or open a virtual file you print the selected resource. You do not then have to go and print a document through OpenERP – you just open the file containing that document in the document management system. The PDF file is then created in real time by OpenERP by reading the relevant data.

The screen *Virtual files for Sales Orders in OpenERP* (page 133) shows the parameters of the virtual files in All Sales Order. You define the virtual files using the name ORDERNUM_print.pdf, where ORDERNUM represents the reference to the order. To do this, you must check the option *Include Record Name* of the file for a directory. You can then find a virtual file for each report associated with an order.



Name : All Sales Order

Name : All Sales Order

Parent Directory : Sales Order

Storage : Database storage

Owner :

For each entry here, virtual files will appear in this folder.

**Contents**

| SEQ. | CONTENT NAME | SUFFIX | DOCUMENT TYPE |
|---|---|---|---|
| 1 | Print Order | _print | PDF Report |

Figure 12.9: *Virtual files for Sales Orders in OpenERP*

To see the effect of this configuration, connect to the FTP server and go into a directory for an order such as *Documents* → *Sales Order* → *All Sales Order* → *SO003*. You can then just click the file *SO003_print.pdf* to get a printout of Order SO003. You can attach it to an email or put it on your desktop.

This system of virtual files is very useful in a lot of situations. For example, if you must quickly re-send a quotation to a customer, you do not have to open OpenERP, you can just attach the relevant virtual file to your email.

Importantly, once files have been read or copied, they become real files, taking up real space, rather than just virtual. This means that you can keep a legal record of all documents that have been created

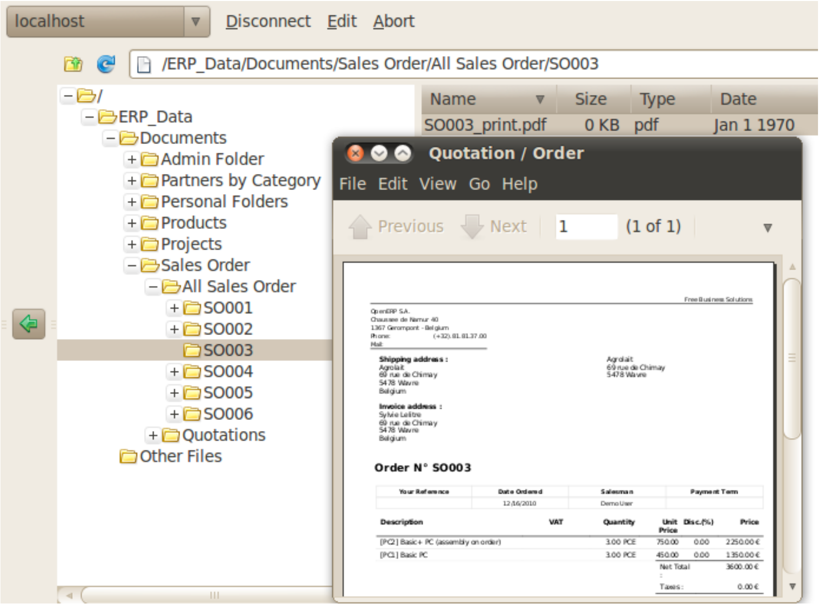

localhost
Disconnect
Edit
Abort
/ERP_Data/Documents/Sales Order/All Sales Order/SO003
/
ERP_Data
Documents
Admin Folder
Partners by Category
Personal Folders
Products
Projects
Sales Order
All Sales Order
SO001
SO002
SO003
SO004
SO005
SO006
Quotations
Other Files
Name
Size
Type
Date
SO003_print.pdf
0 KB
pdf
Jan 1 1970
Quotation / Order
File
Edit
View
Go
Help
Previous
Next
1
(1 of 1)
Order N° SO003

Figure 12.10: *Virtual files for Sales Orders through FTP*

and sent to customers and suppliers.

## 12.8 Standardizing Structures

You now have a configuration that enables you to automatically get a directory structure linked to OpenERP for each resource, such as for projects and orders. The ideal situation would now be to automatically structure the documents about projects, say for example, you could classify them depending on their type:

- Quotations,
- Meeting Minutes,
- Delivery Documents,
- Documentation.

OpenERP provides you with a system that lets you create a structure type for each type of a given document. It then provides that classification for all documents in the directories structured in that type.

So create the structure above for your project management system. To do that, create the four directories above and give them the following data:

- **Type** : Static Directory,
- **Parent Model** : Analytic Account.

Then in each project (represented by analytic accounts) you will get this substructure for organizing your documents efficiently.

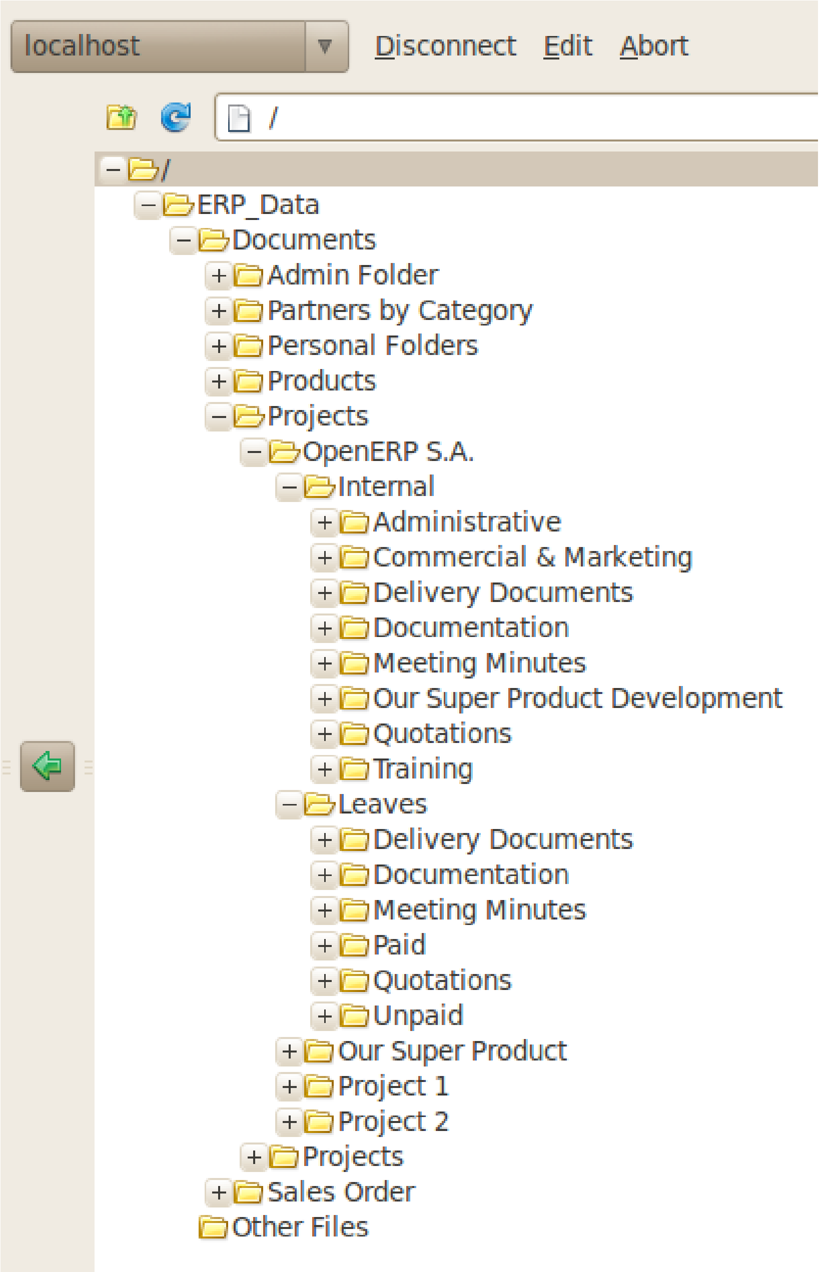
**Mapping**

In practice, OpenERP does not create directories or files for every resource. It actually manages this by mapping between OpenERP resources and the FTP interface.

This approach gives a lot of flexibility because there is no synchronizing to do, nor any redundancy. Changes in either the document management system or in OpenERP will automatically be reflected over in the other side.

And system resources are obviously not used up by storing things twice.

Once a new project has been defined in OpenERP, the system automatically creates a directory corresponding to the project in the right place in the document management system, and creates a structure type there for classifying documents.



- /
  - ERP_Data
    - Documents
      - Admin Folder
      - Partners by Category
      - Personal Folders
      - Products
      - Projects
        - OpenERP S.A.
          - Internal
            - Administrative
            - Commercial & Marketing
            - Delivery Documents
            - Documentation
            - Meeting Minutes
            - Our Super Product Development
            - Quotations
            - Training
          - Leaves
            - Delivery Documents
            - Documentation
            - Meeting Minutes
            - Paid
            - Quotations
            - Unpaid
          - Our Super Product
          - Project 1
          - Project 2
        - Projects
      - Sales Order
    - Other Files

Figure 12.11: *Substructure common to all projects*

## 12.9 Optimizing Document Management

All documents produced by OpenERP are automatically indexed and classified for maximum efficiency. There is an ultra-rapid access to documents, which are directly available from your email client or the company management software. The user access rights are managed just the same way as those that are available in the company management system. All these features help you to get the best out of OpenERP's document management system.

### 12.9.1 Searching for Documents

You have seen several methods of accessing documents quickly:

- From attachments to an OpenERP resource,
- Through FTP access to OpenERP,
- Using the menu *Knowledge → Document Management → Directories' Structure*.

But if you do not know where a specific document can be found, OpenERP also has a search tool integrated into its document management to simplify your search. To search for a file, use the menu *Knowledge → Documents → Documents*. You get to a document search view that lets you search amongst all the attachments and all the documents in the FTP server.

You can search for a file using various different criteria:

- The attachment name,
- The attachment type,
- The filename,
- The owner of a file,
- The directory that it is found in,
- The indexed content.

Notice here an important advantage for an integrated document management system. Information such as which partner is associated with a document is automatically detected by OpenERP when the document has been stored in a directory. This information is never input by the user – it is detected automatically using the information about the resource when it is being saved as a file.

But your search is not limited to these few fields. You can also search on the content in the files. Each file is automatically indexed by the system to give you a search engine rather like Google's on the whole set of company documents.

**Supported File Formats**

The OpenERP document management system can index the following file formats:

- **TXT** : text files,
- **PDF** : PDF files,
- **SXW** : OpenOffice V1 files,
- **ODT** : OpenOffice V2 files,
- **DOC** : Microsoft Word files.

The other file formats are properly handled in the document management system, but their content is not indexed automatically.

This functionality is very significant. All you need to do is search for a partner name or an order number to automatically get all the documents that are referenced there. And you can use a fragment of text to find the document you need from within that subset.

## 12.9.2 Integration with Emails

### Using Outlook and Thunderbird

OpenERP's document management system is well-integrated with popular email clients like Microsoft Outlook and Mozilla Thunderbird. For this, you can install the required plugins available in OpenERP, usually made available when you install and configure `crm`. Or you may install `outlook` or `thunderbird` module according to your requirement, and take advantage of its compatibility with OpenERP's documents. For more on this, refer *ch-commtools*.

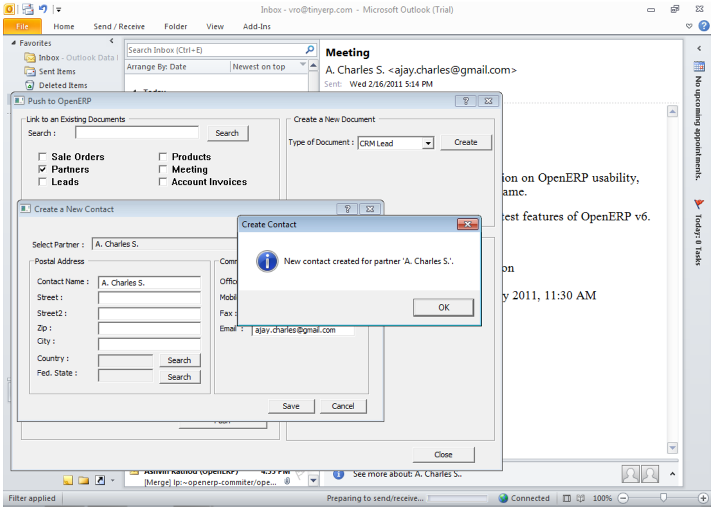
## 12.9.3 Working with Users' Changes

To make the document management system's use as unobtrusive as possible, the system's users should easily be able to store all the documents that they produce or receive from their customers and suppliers. So OpenERP supplies dashboards to help system users approve their acceptance of such documents.

So you will find two dashboards in the menu *Knowledge → Reporting → Dashboard*. One dashboard is for the document management system manager and one dashboard is for tracking use by different users.

The first lets you track the changes to documents by month, by customer and by type of resource. You could also quickly assess the use that is made of the system by the various users.

The second dashboard shows you how different employees use the system. You can see the number of files sent by each user and who uses the document management system the least. That tells you



Inbox - vro@tinyerp.com - Microsoft Outlook (Trial)

Meeting

A. Charles S. <ajay.charles@gmail.com>

Sent: Wed 2/16/2011 5:14 PM

Push to OpenERP

Link to an Existing Documents

Search :

☐ Sale Orders ☐ Products

☑ Partners ☐ Meeting

☐ Leads ☐ Account Invoices

Create a New Document

Type of Document : CRM Lead

Create a New Contact

Select Partner : A. Charles S.

Postal Address

Contact Name : A. Charles S.

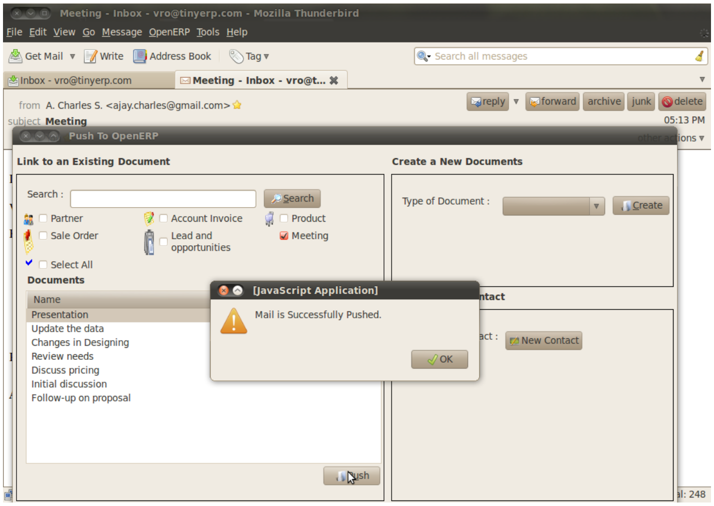
Email : ajay.charles@gmail.com

Create Contact

New contact created for partner 'A. Charles S.'.

OK

Figure 12.12: *Creating a new contact through the Document Management System from Outlook*



Meeting - Inbox - vro@tinyerp.com - Mozilla Thunderbird

from A. Charles S. <ajay.charles@gmail.com>

subject Meeting

05:13 PM

Push To OpenERP

Link to an Existing Document

Search :

☐ Partner ☐ Account Invoice ☐ Product

☐ Sale Order ☐ Lead and opportunities ☑ Meeting

☐ Select All

Documents

| Name |
|---|
| Presentation |
| Update the data |
| Changes in Designing |
| Review needs |
| Discuss pricing |
| Initial discussion |
| Follow-up on proposal |

Create a New Documents

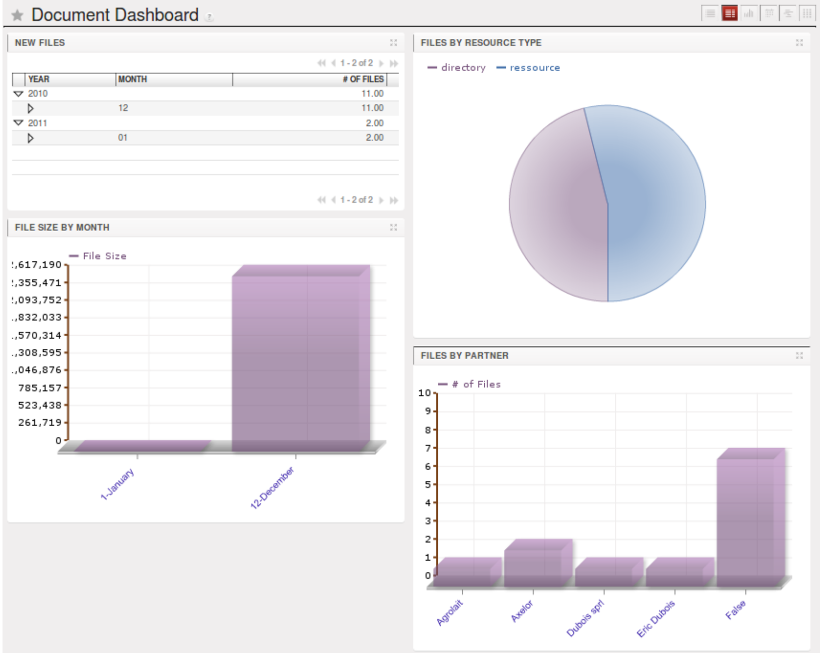
Type of Document :

[JavaScript Application]

Mail is Successfully Pushed.

OK

Figure 12.13: *Pushing an attachment in the Document Management System from Thunderbird*


Document Dashboard
NEW FILES
1 - 2 of 2
FILES BY RESOURCE TYPE
directory
ressource
FILE SIZE BY MONTH
File Size
:,617,190
:,355,471
:,093,752
.,832,033
.,570,314
.,308,595
.,046,876
785,157
523,438
261,719
0
1-January
12-December
FILES BY PARTNER
# of Files
10
9
8
7
6
5
4
3
2
1
0
Agrolait
Axelor
Dubois sprl
Eric Dubois
False

| YEAR | MONTH | # OF FILES |
|---|---|---|
| ▽ 2010 | | 11.00 |
| ▷ | 12 | 11.00 |
| ▽ 2011 | | 2.00 |
| ▷ | 01 | 2.00 |

Figure 12.14: *Dashboard for the document management system manager*

something about your user training and whether you need to do something about changing work methods.

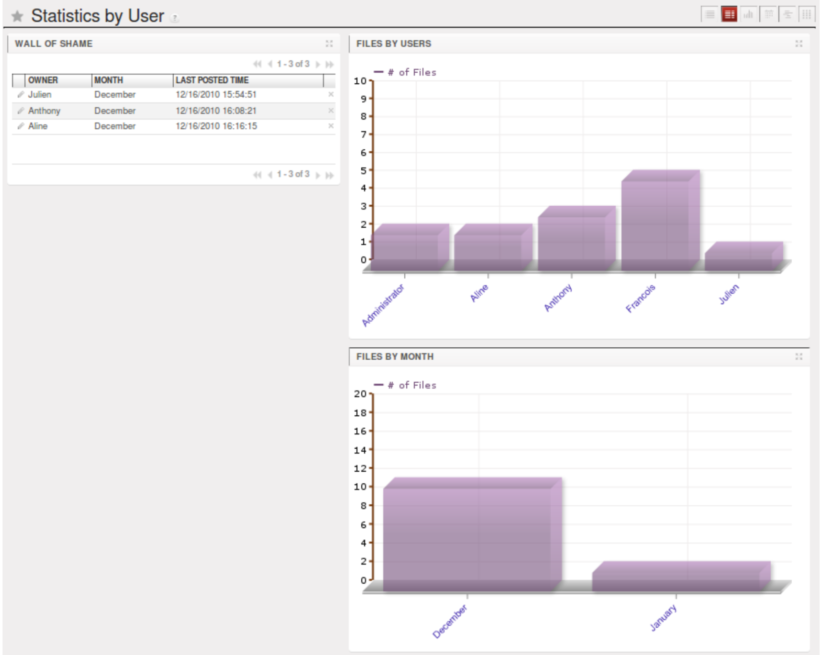
### 12.9.4 Version Management

There is usually a need to keep track of all the important documents that you have printed. For example, when you send an invoice to a customer it is a good idea to store a copy of that invoice internally in paper or electronic form. Then you can reprint it exactly in the same format as when you sent it, even if the company's details have changed in the meantime.

To do this, OpenERP can automatically store as attachments the different reports printed by users. By default, only invoices are saved as attachments, and they are saved when they are printed. That is because they are commonly legally required.

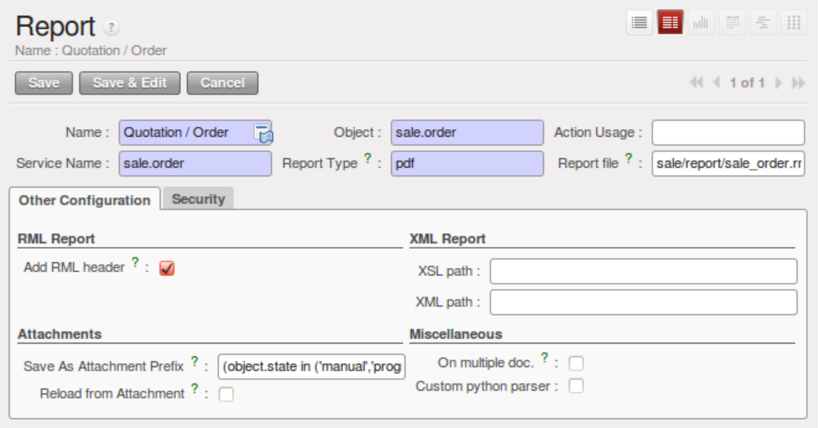
But you can configure the system so that it does not matter which type of report is printed - they can all be stored automatically. To activate that functionality on another type of report, modify this in the menu *Administration* → *Low Level Objects* → *Actions* → *Reports*. To be able to access this menu, the user should be added to the group *Useability / No One*.

Select the report that you want to change and complete the field *Save As Attachment Prefix*. Once you have done that, each document print action will automatically be saved as an attachment to the document.


Statistics by User
WALL OF SHAME
1 - 3 of 3
FILES BY USERS
# of Files
10
9
8
7
6
5
4
3
2
1
0
Administrator
Aline
Anthony
Francois
Julien
FILES BY MONTH
# of Files
20
18
16
14
12
10
8
6
4
2
0
December
January

| OWNER | MONTH | LAST POSTED TIME |
|---|---|---|
| Julien | December | 12/16/2010 15:54:51 |
| Anthony | December | 12/16/2010 16:08:21 |
| Aline | December | 12/16/2010 16:16:15 |

Figure 12.15: *Dashboard for the document management system analyzed by user*


Report
Save
Save & Edit
Cancel
1 of 1
Other Configuration
Security
RML Report
XML Report
Attachments
Miscellaneous

Name : Quotation / Order

Name : Quotation / Order

Object : sale.order

Action Usage :

Service Name : sale.order

Report Type : pdf

Report file : sale/report/sale_order.rr

Add RML header : ☑

XSL path :

XML path :

Save As Attachment Prefix : (object.state in ('manual','prog

Reload from Attachment : ☐

On multiple doc. : ☐

Custom python parser : ☐

Figure 12.16: *Modifying the definition of a report*

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