

2010

中小企業資訊科技培訓計劃

T05 – Powerful Open Source Software
(OSS) Tools for SMEs

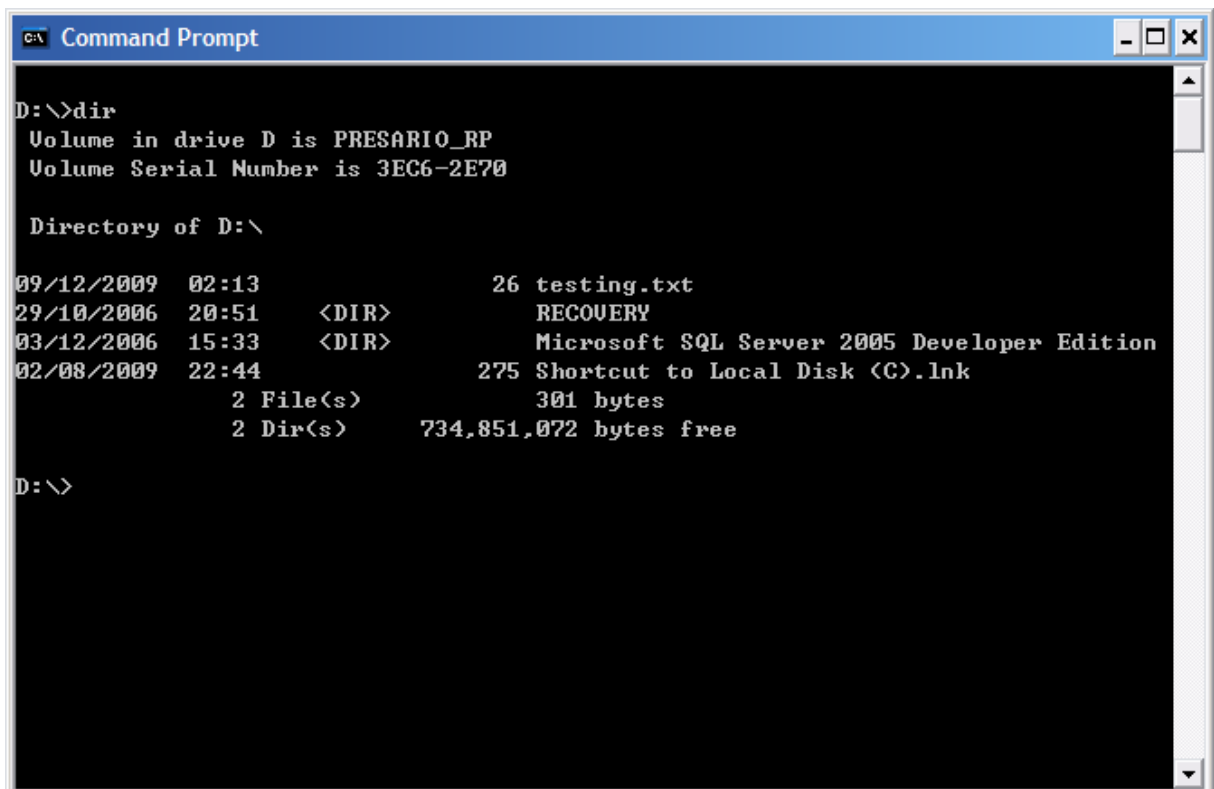
A. What is OSS?

Before study the OSS, several concepts should be understood.

I. Basic Concepts of Source Code, Program and Software

1. Software performs specific tasks for users.
2. Software (or application software) comprises a set of programs, or one single program.
3. Program consists of a set of program statements or commands which are written by human (i.e. programmer). Those commands will instruct the computer to carry out specific tasks.
4. Commands can be illustrated by DOS commands.

dir → It displays a list of files and subdirectories in a directory.



```
Command Prompt
D:\>dir
Volume in drive D is PRESARIO_RP
Volume Serial Number is 3EC6-2E70

Directory of D:\

09/12/2009  02:13                26 testing.txt
29/10/2006  20:51             <DIR>          RECOVERY
03/12/2006  15:33             <DIR>          Microsoft SQL Server 2005 Developer Edition
02/08/2009  22:44           275 Shortcut to Local Disk (C).lnk
                2 File(s)              301 bytes
                2 Dir(s)      734,851,072 bytes free

D:\>
```

copy → It copies one or more files to a specific location.

```
c:\ Command Prompt
D:\>dir
Volume in drive D is PRESARIO_RP
Volume Serial Number is 3EC6-2E70

Directory of D:\

09/12/2009  02:13                26 testing.txt
29/10/2006  20:51    <DIR>          RECOVERY
03/12/2006  15:33    <DIR>          Microsoft SQL Server 2005 Developer Edition
02/08/2009  22:44                275 Shortcut to Local Disk (C).lnk
                2 File(s)      301 bytes
                2 Dir(s)      734,851,072 bytes free

D:\>copy testing.txt testing2.txt
        1 file(s) copied.

D:\>dir
Volume in drive D is PRESARIO_RP
Volume Serial Number is 3EC6-2E70

Directory of D:\

09/12/2009  02:13                26 testing.txt
09/12/2009  02:13                26 testing2.txt
29/10/2006  20:51    <DIR>          RECOVERY
03/12/2006  15:33    <DIR>          Microsoft SQL Server 2005 Developer Edition
02/08/2009  22:44                275 Shortcut to Local Disk (C).lnk
                3 File(s)      327 bytes
                2 Dir(s)      734,846,976 bytes free

D:\>_
```

5. Since those codes (is called **source code** or **source**) are written by human, need to be translated into computer readable format. This format is called object code or executable file.
6. This translation process is called compilation or interpretation.

7. The following is a sample source code of Java.

```
/**
 * The HelloWorldApp class implements an application that
 * simply prints "Hello World!" to standard output.
 */
class HelloWorldApp {
    public static void main(String[] args) {
        System.out.println("Hello World!"); // Display the string.
    }
}
```

II. Concepts of OSS

1. OSS (Open Source Software) is software licensed with a copyright license compliant with the Open Source Definition (OSD) is upheld by the entire open source community.
2. It is distributed with its source code in human readable format (as discussed above).
3. Open and collaborative ways are the core model of OSS and it is contributed by groups of developers.

III. Background of OSS

1. In the early days of computing (approximately 1945 to 1975), computer programs were often shared among developers.
2. In those days, programs were bundled with hardware and sold without extra cost.
3. In 1984, Richard Stallman (a researcher of MIT Artificial Intelligence Lab) started the GNU project and established the Free Software Foundation (FSF) in 1985. It was a very significant milestone of OSS / FOSS (Free Open Source Software).
4. In 1991, Linus Torvalds began developing Linux which can be claimed the most well-known open source software.
5. OSS was coined in 1998 and it became popular among those who wanted to focus on the software source code being available and compliant with the OSD.
6. It is protected and promoted by the Open Source Initiative (OSI).

IV. Characteristics of OSS

1. It may not just mean access to the source code. Its distribution terms should also comply with the following:
2. Free Redistribution, the license shall not require a royalty or other fee for such sale.
3. Source Code, the program must include source code as well as must allow distribution in source code and compiled form.
4. Derived Work, the license must allow modifications and derived works, and must allow them to be distributed under the same terms as the license of the original software.
5. Integrity of Author's Source Code, if the license allows the distribution of "patch files" with the source code for the purpose of modifying the program at build time, it may restrict source-code from being distributed in modified form.
6. No Discrimination Against Persons or Groups
7. No Discrimination Against Fields of Endeavor, the license must not restrict anyone from making use of the program in a specific field of endeavor.
8. Distribution of License, the right attached to the program must apply to all to whom the program is redistributed without the need for execution of an additional license by those parties.
9. License Must Not Be Specific to a Product, the rights attached to the program must not depend on the program's being part of a particular software distribution.
10. License Must Not Restrict Other Software, it must not place restrictions on other software that is distributed along with the licensed software.
11. License Must Be Technology-Neutral, no provision of the license may be predicated on any individual technology or style of interface.

V. Difference between FOSS and OSS

In fact, the difference between them is ambiguous or even no difference.

OSS (Open Source Software) can be interpreted that source code of software is available to the public; while the "Free" of FOSS (Free Open Source Software) has two meanings, namely, free of charge (or gratis) and freedom to, practically, "free" here means freedom not free of cost.

1. FOSS can be divided into two categories, namely, free software and open source software. Sometimes they are treated as one single software type or their features are common and interchangeable.

2. Free Software is a matter of liberty, not price. It concerns about the freedom.
 - ◆ Freedom to run / use / execute the software;
 - ◆ Freedom to study how the programs (software) works by accessing to the source code;
 - ◆ Freedom to redistribute copies;
 - ◆ Freedom to improve / enhance the software (programs) and release the improvements to the public.
3. We can also check out the concepts of "Free Speech" and "Free Beer" on this difference between FOSS and OSS.
 - ✓ "Free Speech" means freedom as in the ability to do whatever you want. Free software is free as in speech. The source code can be studied, modified, shared and executed. It does not necessarily mean that the application costs nothing in terms of money.
 - ✓ "Free Beer" means the application doesn't cost anything in terms of money. It does not mean that you have any rights to the source code, modification, or sharing the application. Just means you don't have to spend any money on it.

B. Current status of OSS

Even though the OSS has emerged for several decades, it is still being developed and growing. The OSS model is the alternative for commercial software applications. Since the OSS appeared, there are many alternatives in the market for most of the commercial software packages. For example, Dia is an OSS package and it can replace Microsoft Visio. It is a software package to create many different kinds of diagrams and charts, like flow charts and network diagrams, and etc.

I. Popular OSS Products

The section below lists some of the most popular or well-known OSS products (with brief description) in the market.

1. Linux is the most famous OSS product.
 - ✓ Its kernel is an operating system kernel used by a family of Unix-like operating systems. It may be also called "baby Unix".
 - ✓ It is designed to provide personal computer users a free or very low-cost operating system comparable to traditional and usually more expensive UNIX systems.
 - ✓ It has a reputation as a very efficient and fast-performing system.
 - ✓ Its kernel can be applied for "Super Computer" Architecture.

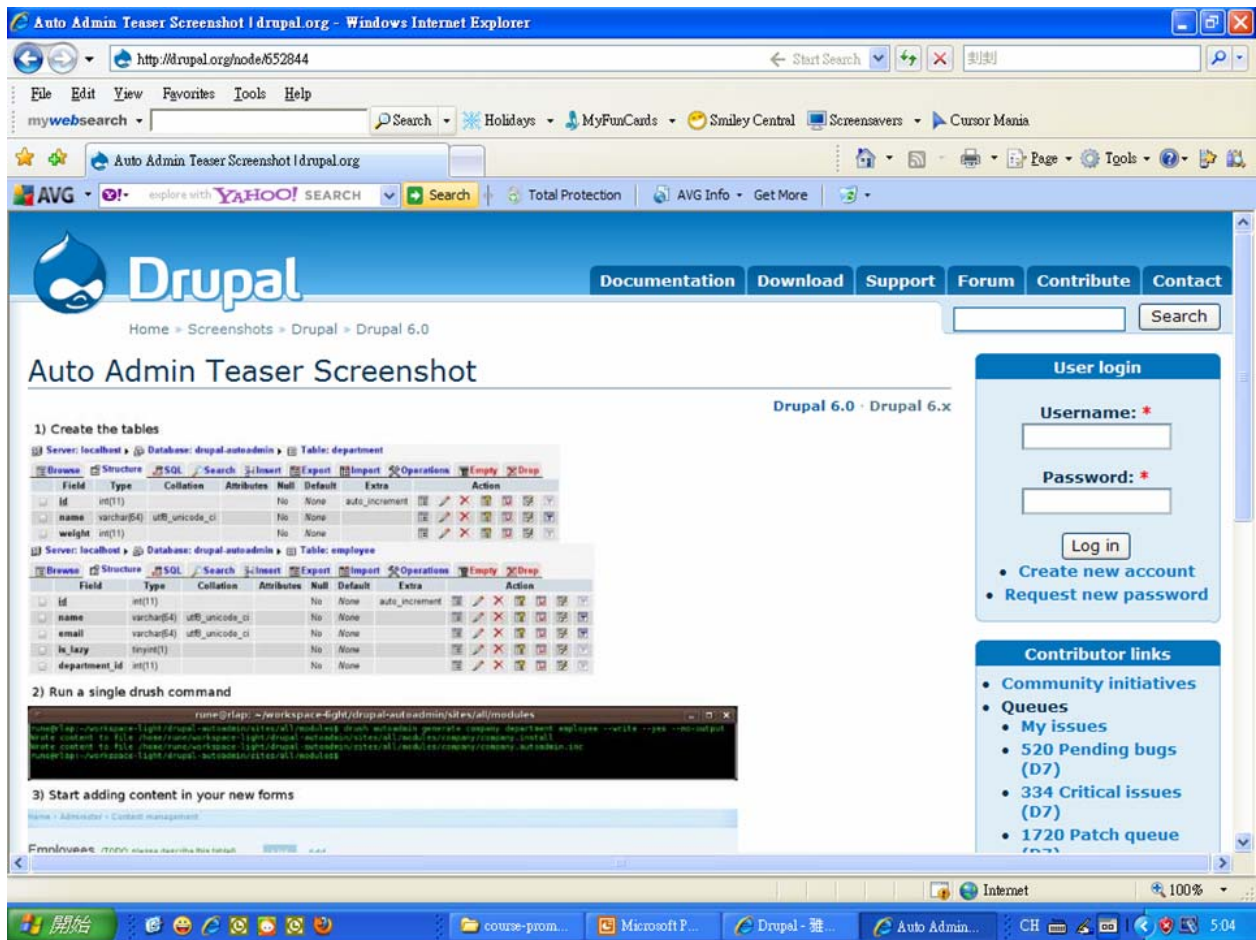
2. Mozilla Firefox is an alternative of MS Internet Explorer, and it should be the second large market player in web browser sector.
 - ✓ The source code can be found from the link below:
https://developer.mozilla.org/En/Developer_Guide/Source_Code
 - ✓ It is mainly written in C/C++ (one of programming languages) with other web development tools and languages (like JavaScript and XUL – XML User Interface Language).
 - ✓ It claims itself faster, safer and smarter than the most popular one.
3. OpenOffice.org is the leading open-source office software suite for word processing, spreadsheets, presentations, graphics, databases.
 - ✓ It can be downloaded and used completely free of charge.
 - ✓ OpenOffice.org Base enables users to handle database data.
 - ✓ OpenOffice.org Draw is for graphics manipulation.
 - ✓ OpenOffice.org Writer is a fully equipped word processor.
 - ✓ OpenOffice.org Calc is a powerful spreadsheet software.
 - ✓ OpenOffice.org Impress can create multimedia presentations.
4. In the Internet world, there are three major players, namely, Apache Tomcat, PHP and MySQL. A full function web or e-Commerce site can be built with them.
 - ✓ Apache Tomcat is a web server (or called HTTP server) which allows web pages (contents) stored and executed.
 - ✓ PHP is a widely-used general-purpose scripting language that is especially suited for Web development and can be embedded into HTML.
 - ✓ MySQL is the world's most popular open source DataBase Management System mainly for web-base applications.
5. Songbird is a free and open source software audio player and web browser.
6. The last example is Gimp. It is probably the oldest and most well-known open source graphic application.
 - ✓ The main features include powerful painting tool, layers and channels support, plug-in architecture and scripting engine.

2. 善用社交網站尋找目標客戶（Facebook 工具）



- Facebook Marketplace is a facebook application that now is powered by Oodle, i.e. it is a third party application of Facebook.
- It lets the users sell, give away, buy, ask, or search for anything.
- Categories include:
 - Item for Sale
 - Housing
 - Vehicles
 - Jobs

3. 以嶄新內容管理系統營運靈活多變的網站（Drupal）



- Drupal is a free open source software package that allows an individual or a community of users to easily publish, manage and organize a wide variety of content on a website.
- Features include:
 - Electronic commerce
 - Blogs
 - Collaborative authoring environments
 - Forums
 - Peer-to-peer networking
 - Newsletters
 - Podcasting
 - Picture galleries
 - File uploads and downloads

fhelsing

- My workspace
- Blog entry
- Create eResource listing
- Create event
- My account
- Recent edits
- Recent posts
- Webform
- ▼ Create content
 - Page
 - Story
 - Wiki page
- ▶ Feed aggregator
- ▶ Administer
- Log out

Create content

Page

A page, similar in form to a story, is a simple method for creating and displaying information that rarely changes, such as an "About us" section of a website. By default, a page entry does not allow visitor comments and is not featured on the site's initial home page.

Story

A story, similar in form to a page, is ideal for creating and displaying content that informs or engages website visitors. Press releases, site announcements, and informal blog-like entries may all be created with a story entry. By default, a story entry is automatically featured on the site's initial home page, and provides the ability to post comments.

Wiki page

A page for the Science Libraries @ UCB wiki that any authenticated user may edit.

Search this site:

Related Links

- Link 1
- Link 2
- Link 3
- Link 4

Defaults: Configure filter Content: Tax Zone (field_taxzone)

This item is currently exposed. If you hide it, users will not be able to change the filter as they view it.

Operator:

- Is one of
- Is all of
- Is none of
- Is empty (NULL)
- Is not empty (NULL)

Tax Zone:

CA & Canada
 Detroit & Addresses
 US & Mexico
 Washington Zone

Reduce duplicates

This filter can cause items that have more than one of the selected options to appear as duplicate results. If this filter causes duplicate results to occur, this checkbox can reduce those duplicates; however, the more terms it has to search for, the less performant the query will be, so use this with caution.

Node reference path:

Tax Zone.Zone City.State State.Country

Unlock operator

When checked, the operator will be available to all users.

Address.City
 City.State
 State.Country

Filter identifier:

This will appear in the URL after the ? to identify this filter. Cannot be blank.

Label:

Optional

This exposed filter is optional and will have added options to allow it not to be set.

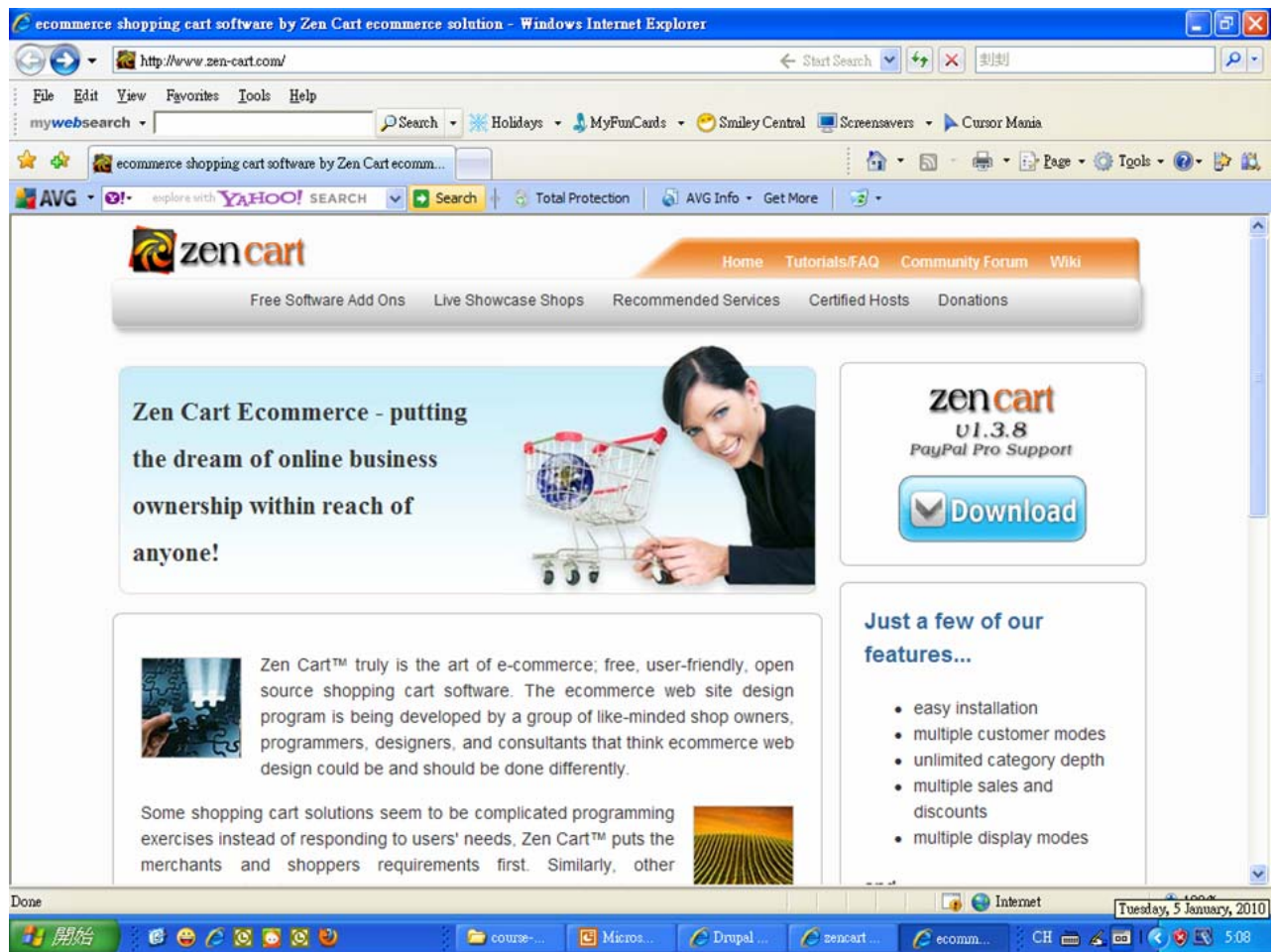
Remember

Remember the last setting the user gave this filter.

Limit list to selected items

If checked, the only items presented to the user will be the ones selected here.

4. 利用網上購物軟件銷售貨品 (ZenCart)



- Zen Cart is the art of e-commerce; free, user-friendly, open source shopping cart software.
- Features include:
 - Multiple customer modes
 - Unlimited category depth
 - Multiple sales and discounts
 - Multiple display modes
 - XHTML template system
 - Unlimited extra pages
 - Multiple ad banner controller
 - Multiple shipping and payment options
 - newsletter manager
 - Discount coupons
 - Gift certificates
 - Featured products
 - Quantity Discount...etc

Home Log In Enter search keyword Search

powered by
zencart
the art of e-commerce

Sales Message Goes Here

Hardware Software DVD Movies Gift Certificates Big Linked Test Examples Test 10% Test 10% by Attrib
Free Call Stuff A Top Level Cat Sale Percentage Sale Deduction Sale New Price Big Unlinked New v1.2 Music
Documents Mixed Product Types

EPages Privacy Notice Shared Zen Cart

Documents


Documents (2)

Categories

- Hardware-> (6)
- Software-> (4)
- DVD Movies-> (17)
- Gift Certificates (6)
- Big Linked (24)
- Test Examples (16)
- Test 10% (7)
- Test 10% by Attrib (3)
- Free Call Stuff (7)
- A Top Level Cat->
- Sale Percentage-> (7)
- Sale Deduction-> (4)
- Sale New Price-> (4)
- Big Unlinked (12)
- New v1.2-> (20)
- Music (1)
- Mixed Product Types (5)

Specials ...
New Products ...
Featured Products ...
All Products ...


New Products [more]


 Under Siege Linked
 \$29.99

Manufacturers

Please Select
Fox
GT Interactive

Reviews [more]


 Quality

Home

Congratulations! You have successfully installed your Zen Cart™ E-Commerce Solution.
Welcome Guest! Would you like to [log yourself in?](#)

Main Page Sample Text ...

This section of text is from the Define Pages Editor located under Tools in the Admin.

To remove this section of the text, delete it from the Define Pages Editor.

This file is located in /languages/english/html_includes/classic/

NOTE: Always backup the files
 in /languages/english/html_includes/your_templates

New Products For August


 Gift Certificate \$ 5.00
 \$5.00


 Gift Certificate \$100.00
 \$100.00


 Gift Certificate \$ 25.00
 \$25.00


 A Bug's Life "Multi Pak" Special 2003 Collectors Edition
 \$35.99


 Microsoft IntelliMouse Explorer
 \$64.95


 Hewlett Packard LaserJet 1100Xi Linked
 \$499.99


 Gift Certificate \$10.00
 \$10.00


 Gift Certificate \$50.00
 \$50.00

Important Links

- My Link
- Anything
- Site Map
- Shared
- Gift Certificates
- Google

Record Companies

Please Select
HMV Group

Music Genres

Please Select
Jazz
Flock

Sponsors




Search

Enter search keywords here

[Advanced Search](#)

Have you seen ...

powered by

zencart

the art of e-commerce

get the Magic of Zen Cart

...if you have to think you haven't been Zoned!

<http://www.zen-cart.com>

Home Log In Enter search keyword Search

powered by
zencart
the art of e-commerce

Big Sale Going on NOW!

Home Software Games The Wheel Of Time

Categories

- Hardware-> (8)
- Software-> (4)
- Action (1)
- Simulation (3)
- Strategy (7)
- DVD Movies-> (17)

New Products [more]


 Fire Down Below
 \$29.99

Manufacturers

CAVIS

Reviews [more]


 Win a prize

The Wheel Of Time



Model: PC-TWOP

\$99.99

Shipping Weight: 30.00 lbs.

30 Units in Stock

Manufactured by: GT Interactive

AM Qty. in Cart

The world in which The Wheel of Time takes place is filled directly out of J.R.R. Tolkien's pages. It's huge and consists of many different environments. How you navigate the world will depend largely on which game - single player or

Search

Search
Advanced Search

Shopping Cart (empty)

0 items

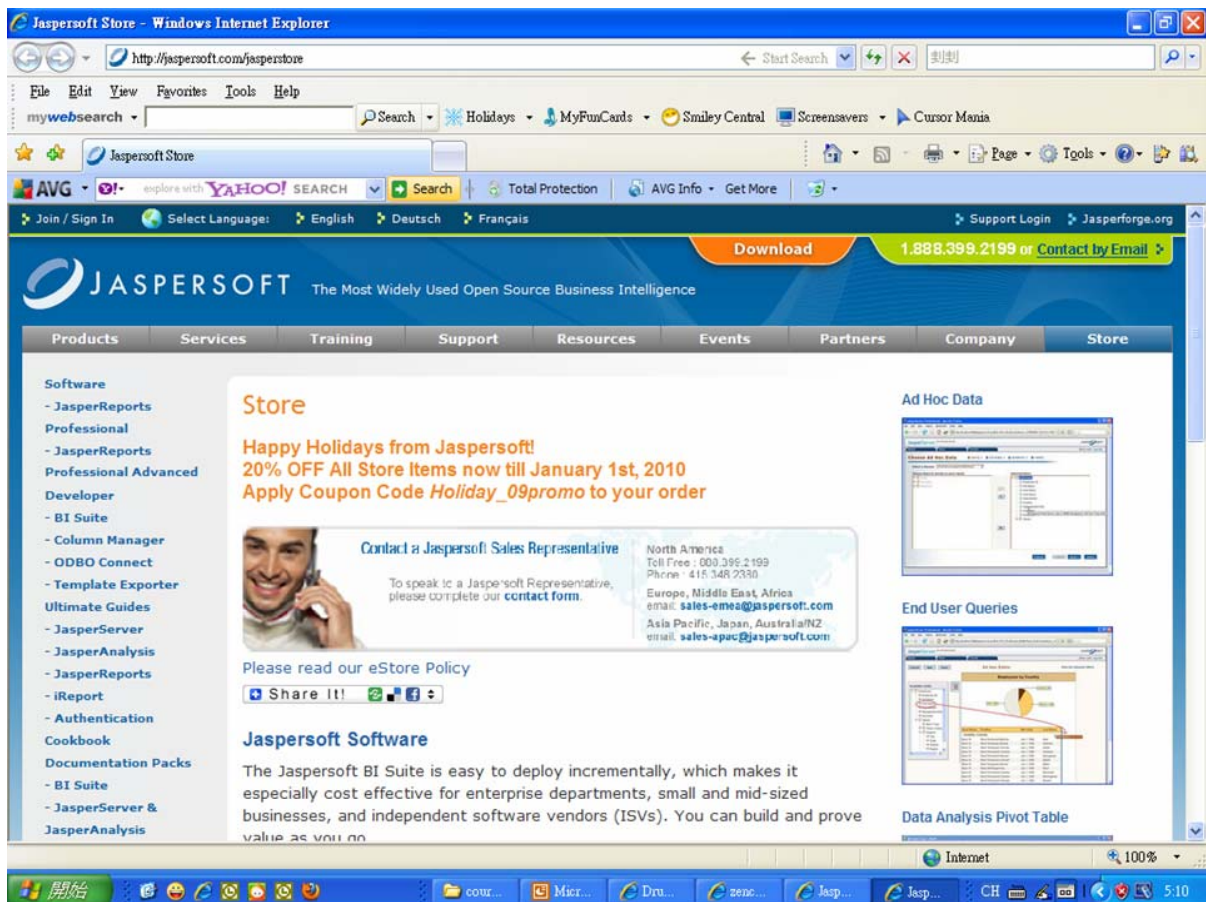
Manufacturer Info

GT Interactive Software

+GT Interactive Home page
+Other products

Site Features

5. 應用商業智能及匯報工具檢析數據（Jaspersoft）



- Jaspersoft is an open source business intelligence suite.
- In the suite, there are several components:
 - JasperServer – an interactive, ad hoc, and managed report and dashboard server for end-user
 - JasperAnalysis – a relational OLAP server with an easy-to-use web-based user interface and integration with MS Excel
 - JasperReports – a powerful embeddable Java reporting library for report designers and developers.
 - JasperETL – graphically design, schedule, and execute data extract transform and load (ETL) operations for business intelligence projects
 - iReport – it is the heart of JasperReports interface, the visual report designer specifically designed for JasperReports. It gives administrators and report designers total control over the contents as well as the look and feel of every report.

JASPERSOFT demo user
Log Out

Home View **Create**

Choose Ad Hoc Data

DATA > FILTERS > DISPLAY > TOPIC

Define the criteria for displaying data in your report. Click an arrow to start building a condition for that field.

Available Fields:

- Expenses
 - Expense Date
 - Expense Amount
- Accounting
- Stores
 - Store Type
 - Store Name
 - Store Contact
 - Regions
 - City
 - State
 - District
 - Region
 - Country**
 - Store Features

Condition Editor:

Field Name:	Comparison:	Value(s):
Country	Equals	USA

Available Values: Canada, Mexico, No Country, USA

Limit Available Values list to items:
Starting with:

Current Conditions (select to edit):

Condition:	Prompt?

Note: Data rows must match all conditions.


JASPERSOFT

JASPERSOFT demo user
Log Out

Home View **Create**

Kristina Benigar
6 Lake Nadine Place
Beaverton OR 25032
USA


Phone 1	260-555-7128
Phone 2	856-555-8493
Marital Status	S
Yearly Income	\$10K - \$30K
Gender	M
Total Children	0
Children at Home	0



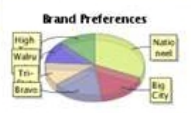
Customer Card Number: 40039603710

Date Acct Opened	16-Aug-92
Member Card	Normal
Birth Date	10-Nov-21
Education	Partial High School
Occupation	Manual
Homeowner	N
Num Cars Owned	1


Shopping Days



Brand Preferences



Average Sale



Purchase details for customer Kristina Benigar:

#	Day	Date	Product Name	Recyclable Package	Low Fat	Promotion Name	Sales	Unit Sales
1.	Friday	09-May	Nationeel Salted Pretzels	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	No Promotion	\$ 9.56	4
2.	Friday	09-May	Booker Havarti Cheese	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	No Promotion	\$ 8.28	3
3.	Friday	09-May	Bravo Creamed Corn	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	No Promotion	\$ 13.12	4
4.	Friday	09-May	Tri-State Walnuts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	No Promotion	\$ 2.64	3
5.	Friday	09-May	High Top Sweet Onion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	No Promotion	\$ 3.72	3
6.	Friday	09-May	Nationeel Graham Crackers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	No Promotion	\$ 6.60	4
7.	Friday	11-Jul	Big City Canned Mixed Fruit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	No Promotion	\$ 4.68	4
8.	Friday	11-Jul	Walrus White Zinfandel Wine	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	No Promotion	\$ 4.83	3

JASPERSOFT

JasperServer Web Services Sample

List report

Current Directory: /

NAME	LABEL	OPERATIONS		
[adhoc]	Ad Hoc Components	Edit	Delete	-
[analysis]	Analysis Components	Edit	Delete	-
[ContentFiles]	Content Files	Edit	Delete	-
[dashboards]	Dashboards	Edit	Delete	-
[datasources]	Data Sources	Edit	Delete	-
[datatypes]	Input Data Types	Edit	Delete	-
[Domains]	Domains	Edit	Delete	-
[images]	Images	Edit	Delete	-
[organizations]	Organizations	Edit	Delete	-
[performance]	Performance	Edit	Delete	-
[reports]	Reports	Edit	Delete	-
[supermart]	SuperMart Demo	Edit	Delete	-
[temp]	Temp	Edit	Delete	-
[public]	Public	Edit	Delete	-

[\[Add New Resource ...\]](#)

[Exit](#)



Income_statement.pdf - Adobe Reader

File Edit View Document Tools Window Help

1 / 1 100% Find

June			YTD (June)			
Actual	Plan	% Var	Actual	Plan	% Var	
Income			Income			
\$ 45,332	\$ 44,500	1.87 %	Total Revenue	\$ 272,295	\$ 262,500	3.73 %
\$ 18,070	\$ 16,910	6.86 %	Cost of Sales	\$ 108,716	\$ 99,750	8.99 %
\$ 27,262	\$ 27,590	(1.19) %	Gross Profit	\$ 163,578	\$ 162,750	0.51 %
60.14 %	62.00 %	(1.86) %	Gross Profit Margin	60.07 %	62.00 %	(1.93) %
Expenses			Expenses			
\$ 1,854	\$ 1,800	2.99 %	General & Administration	\$ 11,123	\$ 10,800	2.99 %
\$ 3,726	\$ 3,750	(0.64) %	Information Systems	\$ 22,357	\$ 24,250	(7.81) %
\$ 5,551	\$ 5,500	0.93 %	Marketing	\$ 33,308	\$ 31,250	6.59 %
\$ 2,722	\$ 2,725	(0.12) %	Lease	\$ 16,331	\$ 16,350	(0.12) %
\$ 13,853	\$ 13,775	0.57 %	Total Operating Expenses	\$ 83,119	\$ 82,650	0.57 %
\$ 13,409	\$ 13,815	(2.94) %	Operating Income (or Loss)	\$ 80,459	\$ 80,100	0.45 %
\$ 1,000	\$ 1,000	0.00 %	Other Expenses	\$ 6,000	\$ 6,000	0.00 %
\$ 12,409	\$ 12,815	(3.17) %	Income Before Taxes	\$ 74,459	\$ 74,100	0.48 %

11.00 x 8.50 in