Magento® User Guide

Magento Enterprise

Important Notice

Magento reserves the right to make corrections, modifications, enhancements, improvements, and other changes to its products and services at any time and to discontinue any product or service without notice. Customers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. All products are sold subject to Magento's terms and conditions of sale supplied at the time of order acknowledgment.

Magento warrants performance of its products to the specifications applicable at the time of sale in accordance with Magento's standard warranty. Testing and other quality control techniques are used to the extent Magento deems necessary to support this warranty. Except where mandated by government requirements, testing of all parameters of each product is not necessarily performed.

Magento assumes no liability for applications assistance or customer product design. Customers are responsible for their products and applications using Magento components. To minimize the risks associated with customer products and applications, customers should provide adequate design and operating safeguards.

Magento does not warrant or represent that any license, either express or implied, is granted under any Magento patent right, copyright, mask work right, or other Magento intellectual property rights relating to any combination, machine, or process in which Magento products or services are used. Information published by Magento regarding third-party products or services does not constitute a license from Magento to use such products or services or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property of the third party, or a license from Magento under the patents or other intellectual property of Magento.

Resale of Magento products or services with statements different from or beyond the parameters stated by Magento for that product or service voids all express and any implied warranties for the associated Magento product or service and is an unfair and deceptive business practice. Magento is not responsible or liable for any such statements.

All company and brand products and service names are trademarks or registered trademarks of their respective holders.

Table of Contents

About This Guide

Welcome to the *Magento User Guide*, which provides an overview of the Magento Enterprise Edition (EE) eCommerce platform developed by Magento, Inc. This guide is intended for web storeowners and first-time users of Magento. It provides a quick guide through the most important steps for getting your web store up and running and ready for selling online. The options described in this user guide enable you to generate a feature-rich and attractive eCommerce interface without the need for advanced technical expertise.

This guide first introduces Magento and its key concepts. The following three chapters discuss basic system configuration and introduce the daily experience that a customer can have in a Magento web store and the daily management tasks that a storeowner would perform.

Parts I through VI of this manual walk you through the process of setting up your Magento web store; customizing its behavior to your requirements; entering products; managing orders, invoices and shipments; and using various marketing features. Parts VII through X describe advanced features of Magento EE.

Support and Contact Information

We at Magento are dedicated to providing our customers with the best possible service. We would love to hear from you.

For feedback on this book and all other inquiries, please use our contact form at: http://www.magentocommerce.com/company/contact-us/

For information about Magento support resources, see "Getting Help," page 451.

Conventions Used in This Guide

The following style conventions are used in this document:

> **Note:** *This is a note.*

> **Tip:** *This is a tip providing useful suggestions and information.*

1   Introducing Magento

This chapter introduces Magento, its basic components, and the workflow for using it.

1.1   What Is Magento?

Magento is a feature-rich eCommerce platform, built on open-source technology, that provides online merchants with unprecedented flexibility and control over the look, content, and functionality of their eCommerce store. Magento's intuitive administration interface features powerful marketing, search engine optimization, and catalog management tools to give merchants the power to create sites that are tailored to their unique business needs. Designed to be completely scalable, Magento offers companies a stable, secure, customizable eCommerce solution.

1.2   Magento Frontend and Backend

The following sections provide an overview of the two visible interfaces of Magento: the frontend and the backend.

Frontend (The Web Store Front)

The frontend is the public view of your web store with which your customers can interact through a standard web browser. It presents your products, product categories, and promotions, and provides your customers with ordering, payment, and purchase tracking features.

An example is shown in Figure 1.

Figure 1.   Magento Frontend

Backend (The Back Office)

The backend is the password-protected view of the back office features that enable a web store administrator to set up the products and purchasing options and to manage orders and all other store functions. You can navigate the Admin Panel using the menu on the top of the page (Magento top menu). A view of the backend is shown in Figure 2.
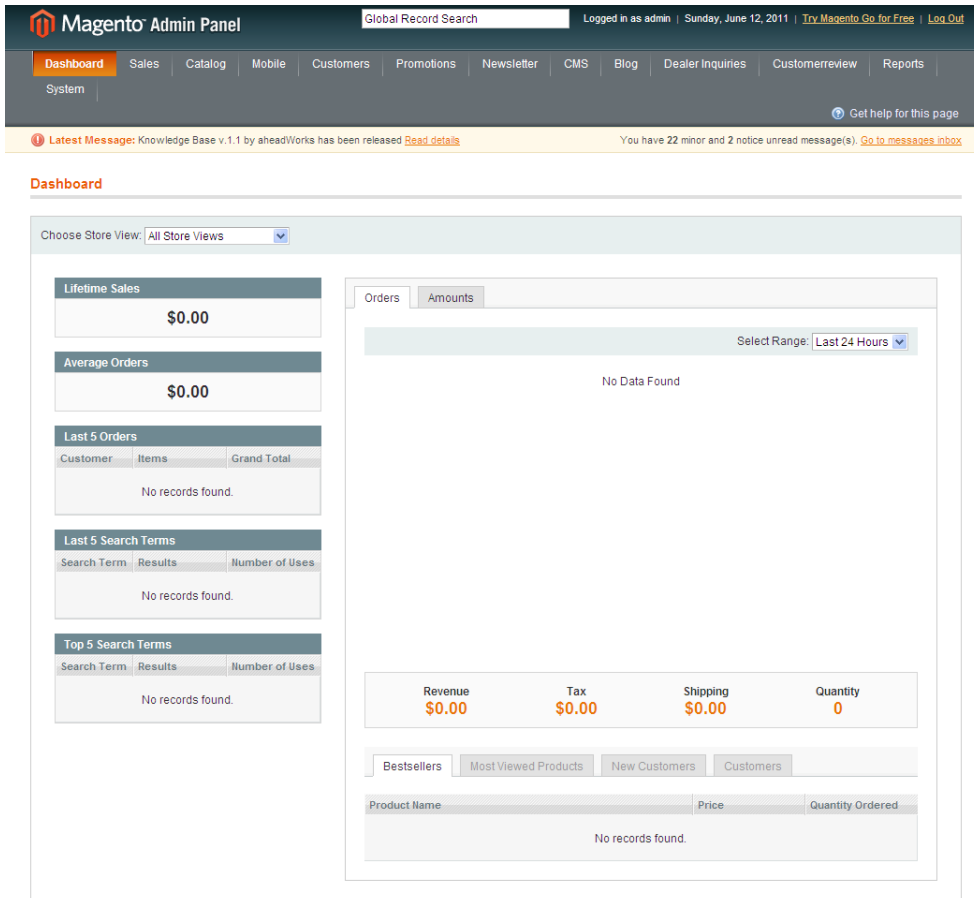
Figure 2.   Magento Backend

1.3   Magento Concepts

To use Magento effectively, you should be familiar with the following terms and concepts. For a complete list of Magento terms and definitions, see "Glossary," page 453.

Attribute: A characteristic of a product. For example, an attribute of a digital camera could be "resolution," and the value of this attribute for a particular digital camera could be "10 megapixels." Customers can filter a list of products by values of one or more attributes.

Attribute Group: A logical grouping of attributes within an attribute set.

Attribute Set: A collection of attributes, customized to fit a certain type of product. For example, if you sell several different kinds of T-shirts on your website, you can create the T-shirts attribute set, which will include the simple attributes commonly shared by all of your T-shirts. This may include color, size, gender, and brand.

Bundle product: This product is composed of components that are presented in different ways and are made from existing products. A good example of a bundle is a complete computer. For this computer, you can configure how much RAM or what kind of monitor is included with this computer in your store.

Category: A user-defined product classification. A category can have any number of levels of subcategories.

Configurable product: This product enables your customers to select the variant that they want by choosing options. For example, you can sell T-shirts in two colors and three sizes. You would have to create six variants as individual products (each with its own SKU) and then add these six to a **configurable product** where customers can choose the size and color, and then add it to their cart.

Credit memo: A credit memo is a statement of credits; for example, a credit for returned merchandise generates a credit memo. According to your store policy, you can apply the credit to future orders or refund the customer's payment method.

Cross-sell: Cross-sell products appear next to the shopping cart. When a customer navigates to the shopping cart page, these products are displayed as cross-sells to the items already in the shopping cart. They are similar to impulse buys, like magazines and candy at the cash registers in grocery stores.

Downloadable product: A product, such as a media file, that the customer downloads from the store after purchase. These downloadable files can reside on your server or be provided as URLs to any other server.

Grouped product: This option enables you to display several similar products on a single page. For example, if you are selling chefs' knives and you have the same knife in four sizes, you can make a **grouped product** to display all four of these sizes. Customers can select the size(s) that they want and add them to the cart from this page.

Invoice: An invoice in Magento represents a confirmation of payment. More than one invoice can be associated with a single order. If the products in an order are shipped in multiple shipments, then an invoice is generated for each shipment for the products in that shipment.

Order: An order is a request for goods.

Order status: The order status indicates where it is in the order cycle. In Magento, the system order status values are the following:

- ❖ **Pending** - Pending orders are brand new orders that have not been processed. Typically, these orders need to be invoiced and shipped.
- ❖ **On Hold** - The user cannot proceed to order processing if the order is in this state. This is convenient if, for example, some data must be verified.

❖ **Pending PayPal** (possible for PayPal orders only) - Pending PayPal orders are brand new orders that have not been cleared by PayPal. When using PayPal as a payment method, customers are redirected to the PayPal website. If they have not paid for the order, orders will be marked as **Pending PayPal**. It is not recommended to process these orders without referencing PayPal first to see if payment has been made.

❖ **Payment Review** - As long as an external payment gateway is verifying the payment information from a sales order, the order is assigned the **Payment Review** status both in the payment system and in Magento.

❖ **Processing** - Processing means that the order has been either invoiced or shipped, but not both.

❖ **Suspected Fraud** (possible for PayPal orders only) – The order transaction did not pass one or more of the PayPal fraud filters and the system receives the response from PayPal that the transaction is under review by Fraud Service

❖ **Complete** - Orders marked as complete have fully been invoiced and have shipped.

❖ **Canceled** - The order can be of this status if the customer calls your web store and asks to cancel an order if the order has not been paid for.

The store administrator can create custom order statuses, assign them to order states and set default status values for order states.

Product type: Magento classifies products as one of several predefined product types: Simple Product, Virtual Product, Downloadable Product, Grouped Product, Configurable Product, Bundle Product, Gift Card Product.

Related product: Related products are offered to the customer for purchase in addition to the item that the customer is viewing.

Scope: Scope describes the extent of your store hierarchy to which a given setting is effective. A setting can have a scope of **Global** (all websites, stores, and store views), **Website** (the selected website and all stores and store views under it), **Store** (the selected store and all store views under it), and **Store View** (the selected store view). Some settings that are set at a higher level can be overridden at a lower level.

Search Engine Optimization (SEO): The set of techniques and strategies that ensure that your site is listed prominently in search engine results, thereby increasing the likelihood that customers will find your site.

Simple product: This is the most basic product type. It is suitable for all kinds of physical (shipped) products.

Shipment: A shipment is a record of the products in an order that have been shipped. More than one shipment can be associated with a single order.

Shopping cart: The set of products that a customer has selected to purchase, but has not yet purchased.

Store: The second level of your store hierarchy. A website can have multiple stores (each, potentially, with its own root category), and a store can have multiple store views.

Store View: The lowest level of your store hierarchy. Typically, a store view is created for each locale or language. All store views under a given store share the same catalog. Customers use a drop-down menu on the frontend to switch from one store view to another.

Tax rule: A combination of a product tax class, customer tax class, and tax rate. This rule defines which tax calculation is applied.

Up-sell: An up-sell item is one that is offered to the customer as an alternative to the product the customer is viewing. These products may be more expensive, of higher quality, or more popular, or produce a higher profit margin.

Virtual Product: This is a product that does not require shipping or inventory. It is generally used for warranties or services.

Website: The highest level of your store hierarchy. You can have multiple websites, and each website can have a different domain name. Websites can be set up to share customer data, or to not share data. Typically, each website has different lines of products and may have different customer bases.

1.4   Installing Magento

Installation of Magento Enterprise Edition is typically performed by a company's IT department or by an outside consultant. For information about installing or upgrading Magento EE, see the "Upgrading Magento Enterprise" document that you receive when you purchase the Enterprise Edition software.

2   Introducing the Frontend

In order to familiarize you with the features of the frontend, this chapter describes the basic browsing and purchasing features provided for your customers by a web store created using Magento. This knowledge will help you make better decisions when setting up your store.

2.1   Overview

The frontend provides the view of your web store that is publicly available to customers using the Internet. The frontend shows your product catalog and provides your customers with ordering, payment, and tracking features.

You can access the Magento EE demo web stores by navigating to http://enterprise-demo.magentocommerce.com. The Single Store Demo is a sample Magento store that uses Magento's default theme and sample data. This sample store is referenced frequently this user guide.

You can access your own store by browsing to the address that you defined for it during installation.

The illustration in Figure 3 shows the first page of a default Magento store with sample data.
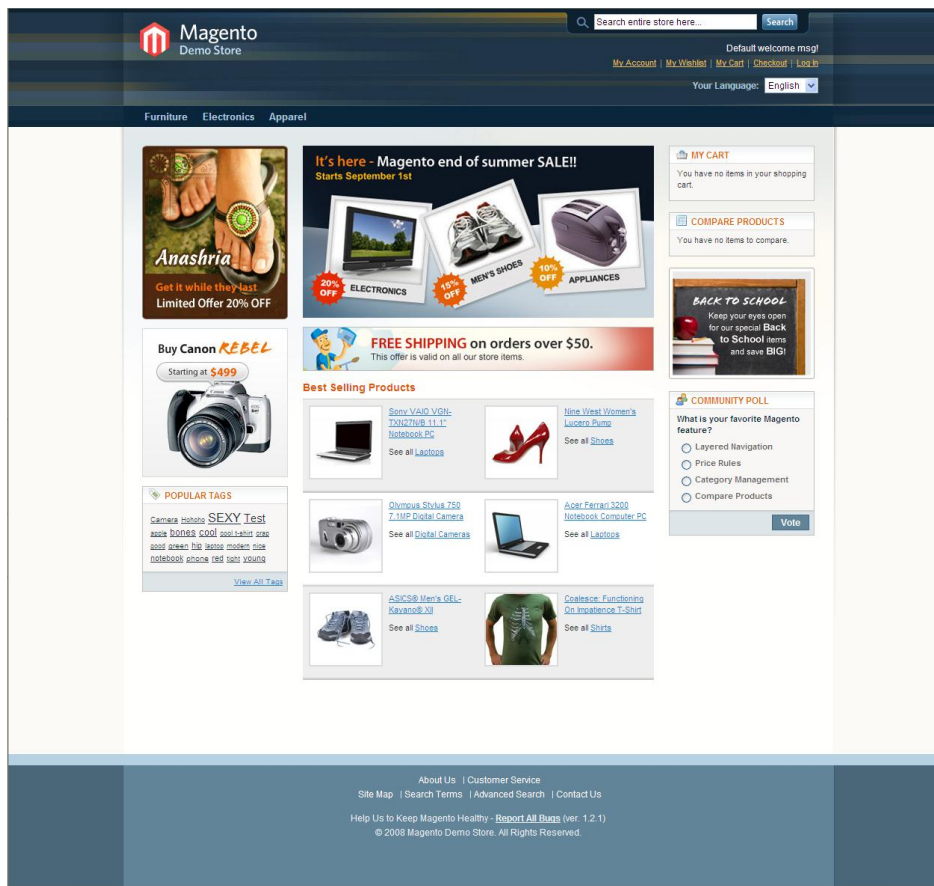
Figure 3.   Magento Store Frontend

2.2   Finding the Right Products

The Magento frontend is also referred to in this guide as your *web store*. It provides a variety of options for browsing through the products offered and then drilling down to view detailed information about each product. Magento enables you to define the default appearance of how multiple products are presented, such as whether they are shown as a list or grid (table), their sort order, and the filter that is used.

Categories

The products in the web store are grouped into *categories*, which are displayed in a bar near the top of the web store page. Each product can be assigned to one or more categories.

Categories can have multiple levels of subcategories. A customer can navigate to a subcategory using a category's drop-down menu. Figure 4 shows the five categories on the Magento demo store and the subcategories under **Electronics**: **Cell Phones**, **Cameras** and **Computers**:

Figure 4.   Categories and Subcategories

A category or a subcategory can each have a product list or show a landing page that features some products. Figure 5 shows a category that has products:
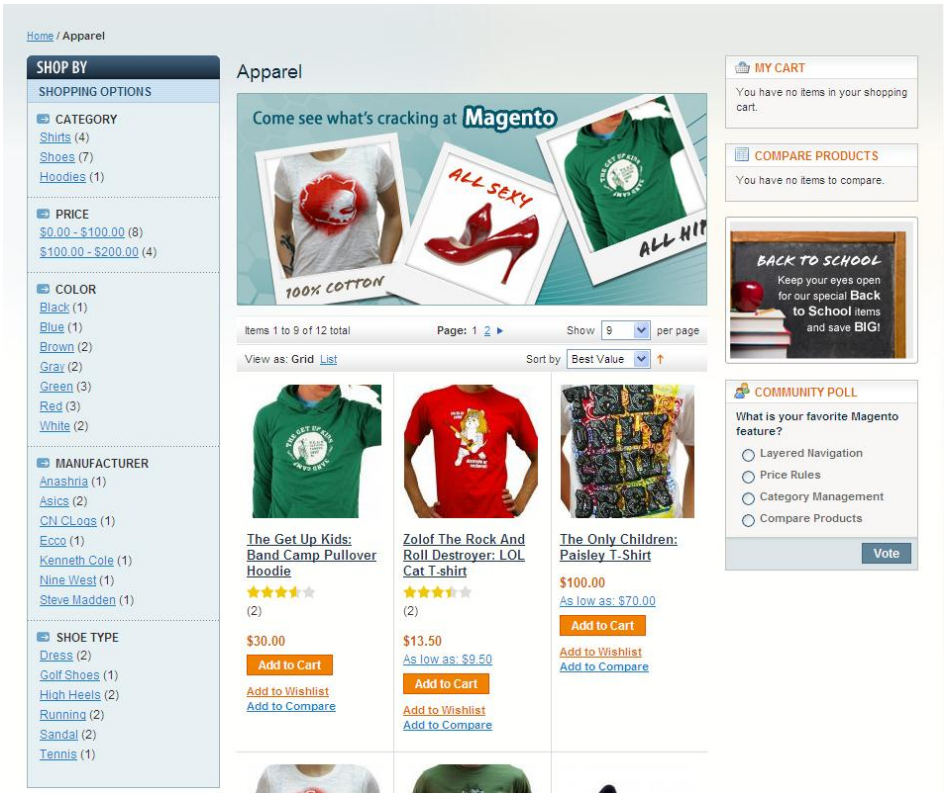
Figure 5.   Category Page with Products

Filtering the Display of Products

Typically, the first step of a customer when browsing through the web store may be to select the category or subcategory of the products of interest. The customer can then filter the products in that category according to the various attributes of these products.

The **SHOP BY** area on the left side of the frontend page provides a variety of product attributes that can be used to access the products in that category. The attributes in a category appear in groups, each with its own title. In the frontend page shown above, the groups that appear are **PRICE** (which shows ranges of prices), **COLOR**, **MANUFACTURER** and **SHOE TYPE**. Next to each attribute is the number of products that have that attribute.

For example: The **Apparel** category has three green products, as shown in Figure 6.

Figure 6.   Category Product Counts

After a customer clicks on the **Green** attribute, all the green products are displayed in the web store for browsing and the **SHOP BY** area indicates that the products in this category have been filtered by the **Color: Green** attribute, as shown in Figure 7.
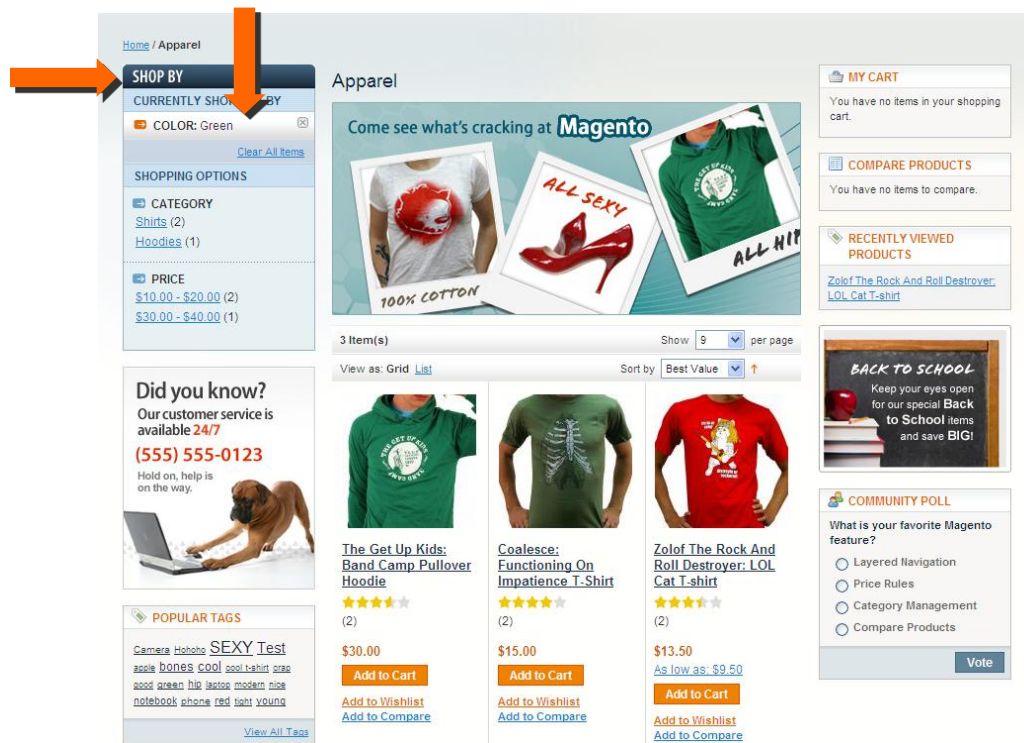
Figure 7.   Filter Indication

To clear the filter and thus redisplay all the products in the currently selected category, click the **Clear** icon ( ) next to the filter, or click the **Clear All Items** option.

> **Note:** *The third product is shown because it contains two variants inside: a green and a red version.*

Popular Tags

Another option that Magento provides to help customers find the right product is called Popular Tags. Popular Tags provide another property that can be assigned to products that customers can select in order to view the products to which this tag has been assigned (see Figure 8).
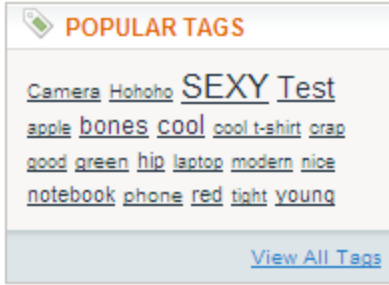
Figure 8.   Popular Tags

Popular tags can be assigned by customers in the product page (see Figure 9) and can be approved and edited from the backend, if required.
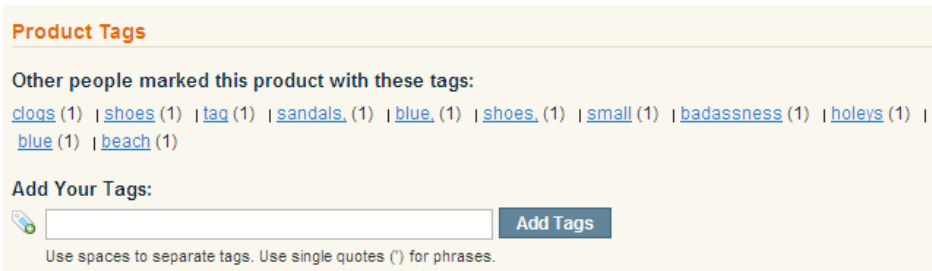
Figure 9.   Adding a Tag to a Product

Searching

The top right of your web store page provides a search field in which a customer can type all or part of the name of a product, or its attributes, in order to find it, as shown in Figure 10.
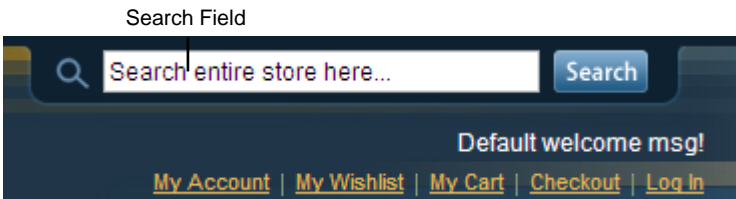
Figure 10.   Search Tool

Comparing Products

Magento enables customers to compare two or more selected products, as follows:

1. A customer first clicks the **Add to Compare** link provided for each product that he/she wants to compare, as shown in Figure 11.

Figure 11.   Add to Compare Link

2. After selecting all the products to be compared, the customer then clicks the **Compare Items** button in the **COMPARE PRODUCTS** area, as shown in Figure 12.
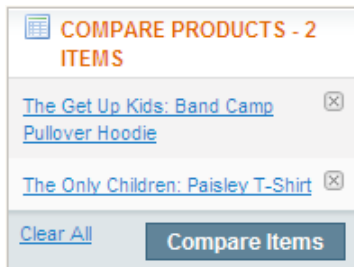
Figure 12.   Compare Products Area

The Compare Products page is then displayed in a pop-up window, as shown in Figure 13.

Figure 13.   Compare Products Page

> *Note:* *A row also appears for each comparable attribute defined for these products, such as Color. See "Managing Product Attributes," page 72, for more information about defining attributes.*

Sorting Products

A customer can sort the products that are displayed by selecting the relevant option in the **Sort by** drop-down menu, as shown in Figure 14.
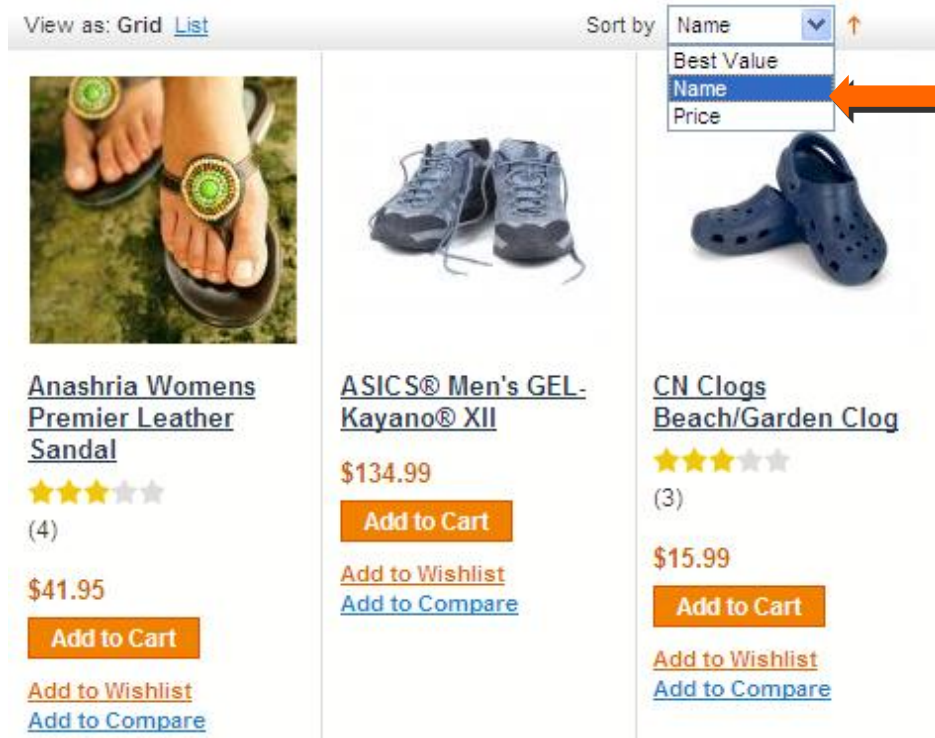
Figure 14.   Sort By Drop-down menu

Grid/List View

By selecting the **Grid** or **List** links at the top of the page, a customer can choose to view products displayed in a grid (table), as shown in Figure 14, or as a list, as shown in Figure 15.

Figure 15.   List View

Recently Viewed

The **RECENTLY VIEWED PRODUCTS** area (see Figure 16) lists the products that were recently viewed by the customer, whether they were purchased or not, and enables the customer to easily link back to them.

Figure 16.   Recently Viewed Products Area

2.3   Promotional Information

Magento provides a variety of aspects of product presentation that you can control and that enable you to promote and up-sell products to your customers.

Product List Banners

You can define the banner that appears at the top of each category landing page with a static block (see Figure 17). This feature adds a graphical element to your category pages that can be used for special promotions, or to highlight certain products. Banners can be defined per category. More information about how to create and add static blocks on your site can be found in "Managing CMS Pages," page 145.

Figure 17.   Product List Banner

Promotional Pages

Another way to feature products and promotions in your web store is a customized category landing page, which is a static HTML page that may be displayed while the user is browsing a category, instead of showing a list of products. See Figure 18.
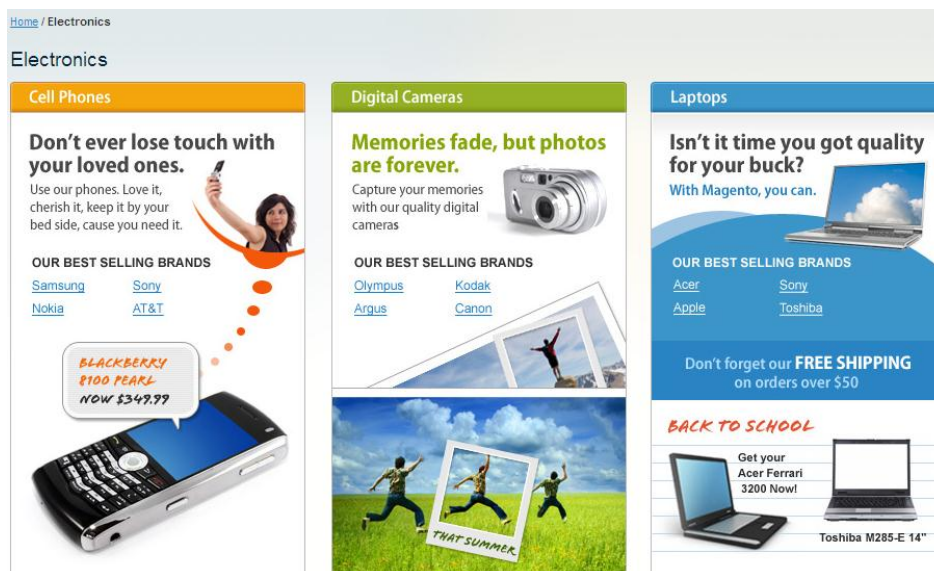
Figure 18.   Promotional Page

Up-sell Products

Up-sell products are items that your customer could buy *instead* of the product that is being viewed. These products may be more expensive, of higher quality, or more popular, or produce a higher profit margin.

The example in Figure 19 presents a more expensive keyboard and other products as up-sells to the less expensive keyboard.

Figure 19.   Up-sell Products

Related Products

Related products are meant to be purchased *in addition* to the item the customer is viewing. Related products are shown in the right column of your web store in a separate block. The example in Figure 20 shows various mobile phones promoted as related products.
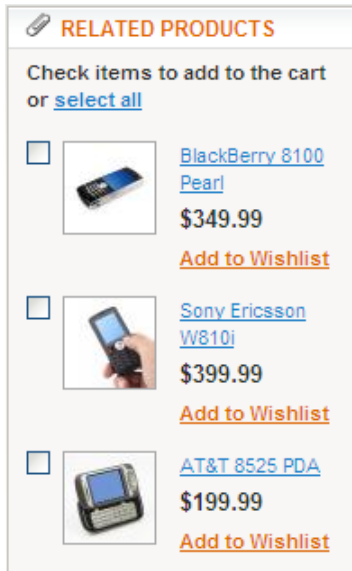
Figure 20.   Related Products

Cross-sell Products

Cross-sell products appear next to the shopping cart. When a customer navigates to the shopping cart page (whether automatically after adding a product or otherwise), these products are displayed as cross-sells to the items already in the shopping cart. They are similar to **impulse buys**, like magazines and candy at the cash registers in grocery stores. See Figure 21.
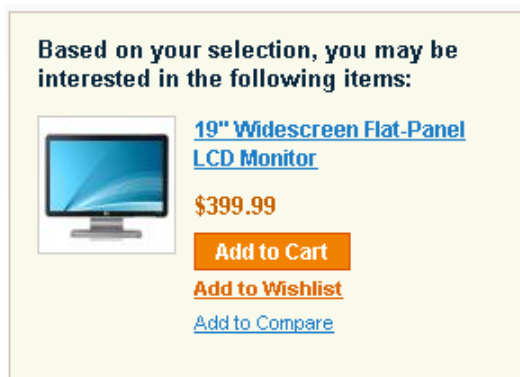
Figure 21.   Cross-sell Item

Product Pages

The backend enables you to define the type of information and functionality that is provided in a product's page. Figure 22 shows a typical product page.

Figure 22.   Product Page

Most of the features provided to present a product in your web store are self-explanatory. The following describes a few of these features:

❖ **Image:** The customer can use the slider to zoom in and out of the image, click on it to enlarge it, or pan it to see different parts of it.

❖ **Description:** The top of the page shows a short description in the **Quick Overview** area, and farther down you can see a more detailed **Product Description** area. Also, **Additional Information** details are provided about the product in the form of a table.

❖ **Product Tags:** Shows the tags assigned to this product. Customers can navigate to other products by clicking on one of these tags. You can also define whether customers can add tags.

❖ **Reviews:** Your customers can rate and review your products. The store administrator can approve or remove reviews.

❖ **Product Options:** Magento provides a variety of controls that enable you to configure the product options that appear for a customer to select, such as check boxes, drop-down menus, and so on. For example, customers are able to select the size of a shoe, as shown in Figure 23.

Figure 23.   Product Options

2.4   Web Store Page Header and Footer

Every web store has a header that appears at the top of each page and a footer that appears at the bottom of each page. These features enable you to control the look and feel of your web store and provide the customer with various functions, as described in this section.

The Header

The default header of each of your web store pages shows your web store logo and banner. An example is shown in Figure 24.
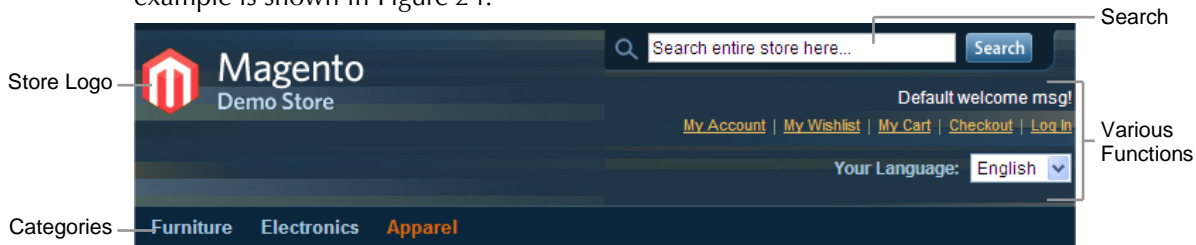
Figure 24. Web Store Header

This header also provides a variety of functions on the right, as follows:

- ❖ **My Account:** Enables registered customers to access their order history, track their shipments, download products, and change address information.
- ❖ **My Wish List:** Enables customers to define a list of items that they may want to purchase in the future. They can also share their wish list with their friends.
- ❖ **My Cart:** Enables customers to see the products that they have selected to purchase.
- ❖ **Checkout:** Enables customers to start the checkout process in order to specify payment, billing, and shipping information.
- ❖ **Log In:** Enables customers to identify themselves.
- ❖ **Log Out:** Enables customers to log out of their accounts.

The Footer

The bottom of each of your web store pages includes a footer (see Figure 25).
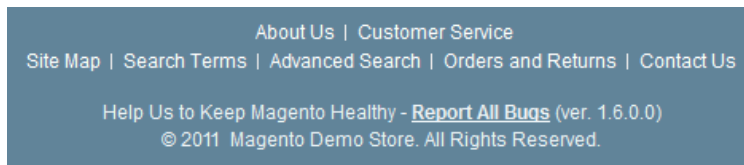
Figure 25. Web Store Footer

This footer generally provides links to various informational and functional pages in the site, such as **Contact Us** and the **Site Map**.

2.5   Purchasing Functionality

Wishlist

The Wishlist feature enables customers to pick out products which they are interested in, but not ready to order yet. Products can be moved from the Wishlist to the shopping cart with one click. Customers can also share the Wishlist with their friends right from the Wishlist section of the My Account page. The Wishlist feature is available for registered customers only.

My Cart

To add a product to your shopping cart, click on the **Add to Cart** button for that product, as shown in Figure 26.
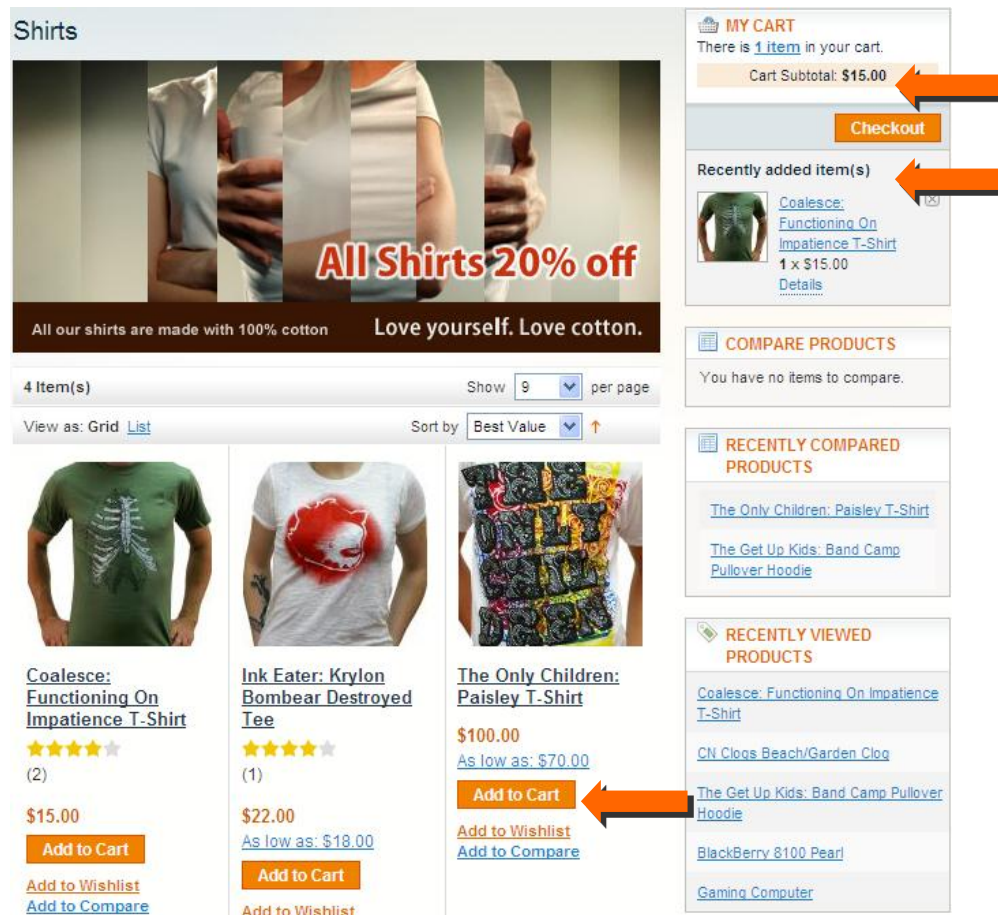
Figure 26.   Add to Cart Button

The **My Cart** area shown in Figure 26 displays a brief list of the products in your shopping cart. The **Recently Added items(s)** area shows a list of the last three items added to your shopping cart.

Clearing My Cart

A customer who wants to remove all items from the shopping cart can do so by clicking the **Clear Shipping Cart** button on the Shopping Cart page (see Figure 27).

Figure 27.   Clearing the Shopping Cart

Checking Out

The **My Cart** area also provides a **Checkout** button (see Figure 28) that takes a customer to the first step of the one-page checkout process (see Figure 29).
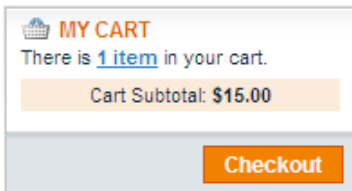
Figure 28.   My Cart Area
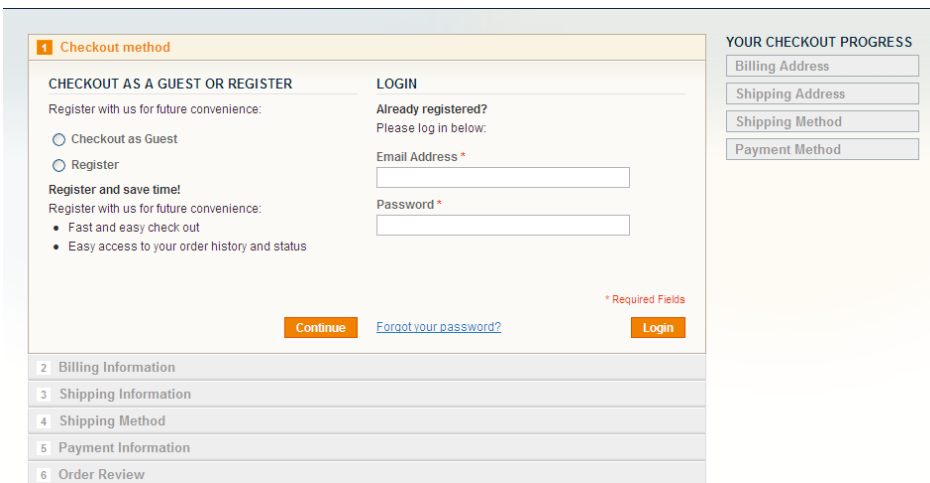
Figure 29.   Checking Out

Most of the functionality of the checkout process is available by default. In addition, the backend provides a variety of options to customize the customer checkout process, such as various payment and shipping methods that can be offered to your customers.

A customer can make a one-time purchase as a guest or register and create an account. Customers that have created an account can later track the status of their orders.

> **Tip:** *Magento also provides multi-shipping functionality that enables customers to ship items to more than one address at the same time. This is a very useful feature for sending gifts, for example. This feature can be configured under **System > Configuration** > SALES **> Shipping Settings > Options**.*
>
> **Tip:** *Customers can also register and create an account by using the **My Account** or **Log In** link on the top right of each page.*

Figure 30 shows an example of checking out as a guest by selecting the **Checkout as Guest** option in the step above.

Click **Continue** to see the next step in which the customer can enter the billing and identification information.

Figure 30.   Checkout as Guest

Click **Continue** to specify the **Shipping Address**, select the **Shipping Method**, and select the **Payment Method**.

The last step of the checkout process enables the customer to review the entire order, as shown in Figure 31.

Figure 31.   Order Review

Customers then confirm the order and receive an order number, or they can change their minds and edit their carts using the **Edit Your Cart** link. If they proceed with the order and the payment is processed successfully, then a "Thank You" page is displayed, as shown in Figure 32.

Figure 32.   "Thank You" Page

A confirmation email can be sent to the customer. An example is shown in Figure 33. The confirmation email can be configured by under **System > Configuration > Sales Emails**.

Figure 33. Confirmation Email

2.6 Managing Customer Relations

Customer Emails

Magento can send a variety of automatically generated customer emails (such as when a customer places an order or opens an account) and enables you to customize them as you require. For more information about customizing the emails sent from the store to customers, see "Customizing Transactional Emails," page 156.

Ratings and Reviews

Rating and review functionality is provided by Magento to enable customers and web store owners to give their opinions, feedback, and comments about products. They appear in the frontend, as shown in Figure 34.

Figure 34.   Ratings and Reviews

The number of stars indicates the satisfaction rating. You can click on the **Review(s)** link to display the actual textual reviews provided by customers. For more details, see "Managing Ratings and Reviews", page 324.

Community Polls

Each web store can provide a Community Poll, as shown in Figure 35. For more details, see "Managing Polls," page 329.

Figure 35.   Community Poll

3 Introducing the Backend

In order to familiarize you with the features of the backend, this chapter describes, at a high level, the ongoing management tasks that you can perform in the backend while running your Magento web store on a day-to-day basis.

See "Accessing the Backend," page 37, for details on logging in to your store's backend.

See "Setting Up Your Catalog," page 53, for a full description of how to set up your catalog. Each of the subsequent chapters features a description of the other aspects of customizing your backend.

3.1 Understanding Scope

Magento enables you to organize your operations into multiple websites, stores, and store views. (See "Store Hierarchy," page 39, for descriptions of these terms.) Many of the configuration pages in the backend enable you to select the website, store, or store view that you want your configuration changes to apply to. Selecting the website, store, or store view is known as selecting the *scope* of your changes.

To select the scope for configuration changes, use the **Current Configuration Scope** drop-down menu in the upper left corner of the configuration page, as shown in Figure 36.
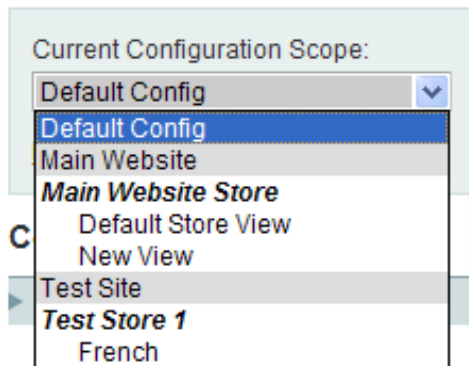
Figure 36. Selecting Configuration Scope

If you select **Default Config**, the option choices you make are applied as default values for all websites, stores, and store views.

On the configuration pages, you will see scope indicators to the right of each option. These indicate the lowest level of the hierarchy at which you can set the value of these options. For example, the value of the **Default Display Currency** option may be set at the default (global) level, but can be overridden at the store view level, as indicated by the "[STORE VIEW]" indicator for that option (see Figure 37).
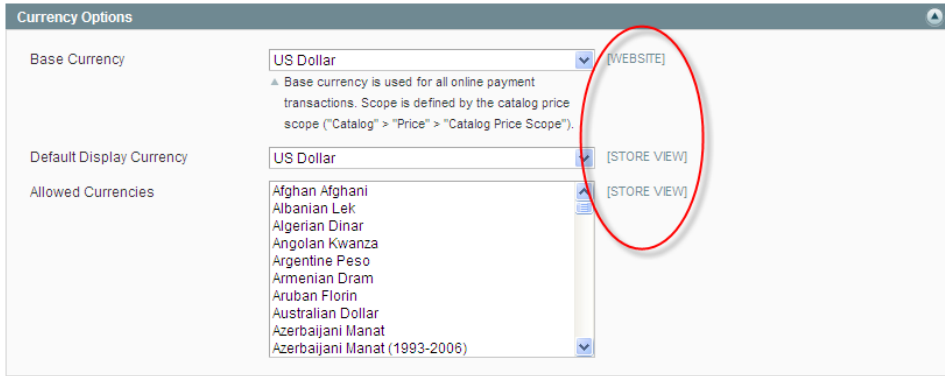
Figure 37.   Scope Indicators

3.2   Managing Administrator Messages

When you log in to the backend, any new messages are displayed in a pop-up box. Typically, these messages are notifications of new Magento or extension releases. You can manage these messages much like you would manage your email.

To display all the messages in your inbox:

Click the **Go to messages inbox** on the top right of the page. The Messages Inbox page is displayed, which provides standard message handling features (see Figure 38).
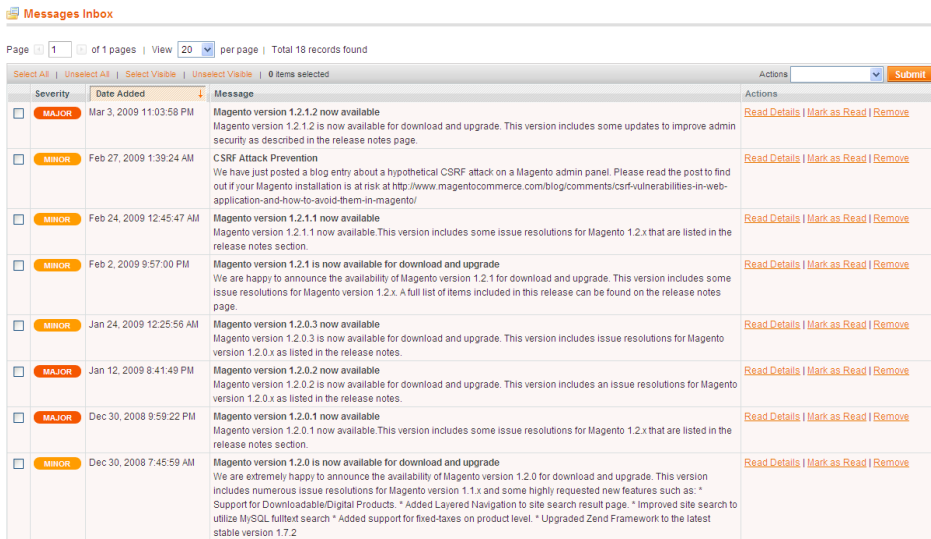
Figure 38.   Messages Inbox Page

You can mark selected messages as **Read** so that they do not appear again when you log in. You can also **Remove** marked messages so that they are permanently deleted.

3.3   Supervising Web Store Activities

The Dashboard (Figure 39) is the first page to be displayed by default after you log in. It can also be accessed by clicking **Dashboard** on the Admin Panel top menu.
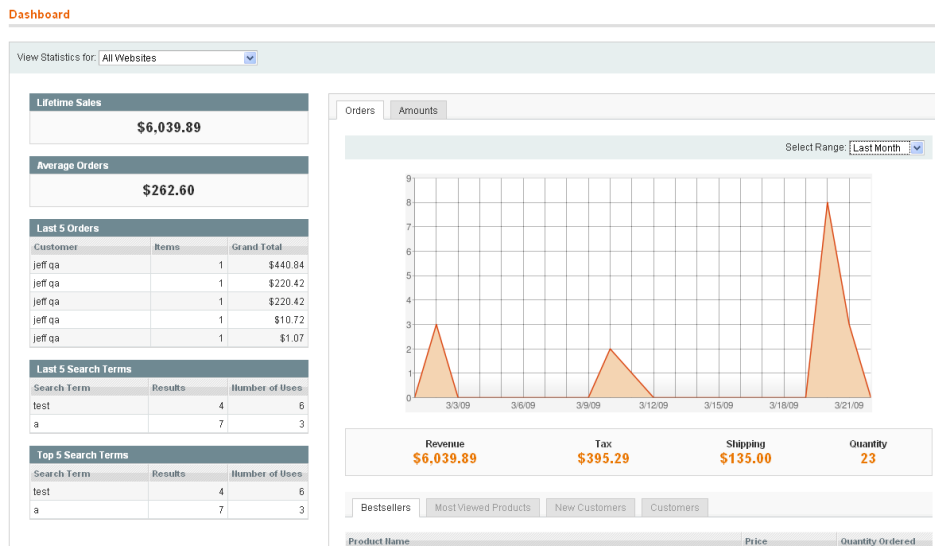
Figure 39.   Dashboard

This page shows you basic information and statistics for managing your web store. The following describes the options in this page.

Chart

Orders tab: The **Orders** tab in the center of the page shows a graph that indicates the quantity of orders being processed in your web store for each point on the time scale within the specified range. The range is selected in the **Select Range** drop-down menu at the top of the chart. Underneath you can see the revenue, tax and shipping amounts of your orders and the total quantity of the orders. Only orders for which at least one invoice, shipment, or credit memo has been created or which have been created from external gateways (for example, PayPal Express) are included in the reports.

Amounts tab: The **Amounts** tab in the center of the page shows a graph indicating the revenue for each point on the time scale within the specified range. The range is selected in the **Select Range** drop-down menu at the top of the chart.

Revenue, Tax, Shipping, and Quantity: These statistics are calculated as follows:

❖ Revenue = Total Invoiced Amount - Tax Invoiced Amount - Shipping Invoiced Amount - (Total Refunded Amount - Tax Refunded Amount - Shipping Refunded Amount)

❖ Tax = Tax Invoiced Amount - Tax Refunded Amount

❖ Shipping = Shipping Invoiced Amount - Shipping Refunded Amount

Left Information Panel

The panel on the left shows you the total amount of orders handled in your Magento web store, the average amount of each order, information about your last five orders, and the last five and top five search terms.

Bottom Information Tabs

The bottom of the Dashboard (Figure 40) provides additional information about your web store, as follows:

Bestsellers	Most Viewed Products	New Customers	Customers		
Product Name				**Price**	**Number of Views**
The Get Up Kids: Band Camp Pullover Hoodie				$30.00	5
CN Clogs Beach/Garden Clog				$15.99	2
Computer					2
Gaming Computer				$4,999.95	2
Coalesce: Functioning On Impatience T-Shirt				$15.00	2

Figure 40.   Additional Dashboard Information

❖ **Bestsellers Tab** - Shows a list of the best-selling products in your web store, their price, and the quantity ordered.

❖ **Most Viewed Products Tab** - Shows a list of the most recently viewed products and the number of times they were viewed.

❖ **New Customers -** Shows a list of the most recently registered customers.

❖ **Customers** - Shows a list of your top customers, meaning the customers that have ordered the most items from your web store in the last year.

3.4   Managing Orders

This section first describes how to view and manage orders, as well as how to create orders from the backend.

Viewing the Orders in Your Web Store

To view the orders in your web store:

In the Admin Panel, select **Sales > Orders** to display the Orders page, as shown in Figure 41.

Figure 41.   Orders Page

This page displays a list of the orders placed in your web store.

The following describes some of the options for managing orders in this page:

❖ **Quantity of Orders Displayed:** The top part of the page enables you to control how many orders are displayed in the page, as shown in Figure 42.

Figure 42.   Order Display Controls

❖ **Selecting Orders:** The area under the order display controls enables you to select/unselect all the orders in your web store or to select/unselect all the orders currently visible, meaning those that are currently displayed in this page. See Figure 43.

Figure 43.   Order Selection Controls

Note: *You can also select individual orders by selecting the check box on the left of each order.*

❖ **Filtering Orders:** The area under the order selection controls enables you to filter the orders that are displayed by specifying values in one or more of the fields and then clicking **Search**. To display all orders, click **Reset Filter**. See Figure 44.

Figure 44.   Filtering Controls

Note: *The list displays only those orders that meet all the criteria that you specified.*

❖ **Sorting orders:** Click on the header of a column to sort the orders by the value of that column. Each click toggles between an ascending sort and a descending sort.

❖ **Order actions:** The **Actions** drop-down menu provides a list of actions that may be performed on the selected orders. The actions that can be performed include the following:
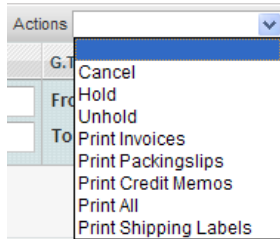
  o **Cancel:** Sets the order status to **Canceled** and disables any further processing.
  o **Hold:** Puts the order on hold. The order is not affected in any way, but no further action may be performed unless you release it from Hold status.
  o **Unhold**: Releases the order from Hold status.
  o **Printing options**: These options enable you to print various documents related to the order.

❖ **Viewing an order:** To view and/or edit an existing order, click row for the desired order or click the **View** option in the order's row in the **Action** column. The Order View page opens, showing details about the order.

Viewing an Order's Details

Magento provides a large variety of information for each order. This section provides a quick review of some of the information provided for an existing order. The navigation bar at the top of the Order View page enables you to access the various sections: **Information**, **Invoices**, **Credit Memos**, **Shipments**, **Comments History,** and **Transactions**.

Information Page

This page provides an overview of the most important information about the order, such as the current status of the order, the products ordered, customer information, billing, shipping, and payment information. See Figure 45.

Figure 45.   Order Information Page

Note: *The SKU (Stock Keeping Unit) specifies the product code that is used to keep track of the actual inventory. SKUs are defined during product creation. For details about managing your product catalog, see "Setting Up Your Catalog," page 53.*

The **Comments History** area of this page provides information about the lifecycle of the order. Every time that an invoice, shipment, or credit memo document is created, a record with each document's identification is added on this tab. Also, here you can find out whether the customer was notified about the creation of each order document. For each partial refund, the system provides the order amount to be returned to the customer. You can change the order status in the **Status** drop-down menu.

To add a comment to the order:

1. Specify the comment text in the **Comment** text box.

2. If you want to send the comment to the customer by email, select the **Notify Customer by Email** check box.

3. If you want to make the comment visible in the order view on the frontend, select the **Visible on Frontend** check-box to specify that the customer is sent a copy of the comments that you add in the Comment box.

4. Click **Submit Comment**.

All comments are stored on the Comments History page. To open it, click the Comments History tab on the left.

Invoices Page

An invoice represents a confirmation of payment. The Invoices page enables you to view the list of invoices generated for an order.

You can generate an invoice individually or together with a shipment. If the products in an order are shipped in multiple shipments, then an invoice is generated for each shipment for the products in that shipment.

Credit Memos

The Credit Memos page displays a list of the refunds given for products in this order. You can click on a credit memo in the list to display the refund details.

Shipments Page

A shipment is a record of the products in an order that have been shipped. As with invoices, multiple shipments can be created per order.

The Shipment page displays a list of the shipments sent for products in this order. You can click on a shipment in the list to display the shipment details.

On the Shipment page, you can also add tracking numbers that were received from shipping service providers. The tracking number enables customers to learn the status of the shipments in their orders using the **My Account** option that appears in the header of the frontend. For the supported shipping service providers you can create and print shipping labels form the Shipment page.

Comment History Page

The Comment History page enables you to view a list of comments that have been added to the order record over the course of its life cycle. It is a good practice to add comments at every stage of the order, especially if problems come up.

Transactions Page

The Transactions page enables you to view a list of transactions that are associated with this order.

Creating New Orders

You may want to create an order using the backend, for example when an order is received over the phone.

> ***Tip:*** *Typically, orders are placed by customers in the frontend. In addition, you can create orders in the backend. This enables you to take orders by phone, mail or fax and then enter them into your web store to be managed and tracked. This feature is useful for call center operators to take orders directly from your customers. The ordering process in the backend is not much different from the one your customers experience. The backend provides all the same functions that your customers have when creating an order from your web store, including the ability to move products between the shopping cart and wishlist. It also enables you to give customers special prices and discounts.*

To create a new order from the backend:

1. Select **Sales > Orders**.

2. Click the **Create New Order** button on the top right.

A full description of this procedure is provided in "Managing Orders," page 317.

3.5   Managing Ratings and Reviews

Rating and review functionality is provided by Magento to enable customers and web store owners to submit their opinions, feedback, and comments about products. Product reviews and ratings can also be added using the backend. To access the ratings and reviews management features, select **Catalog > Reviews and Ratings**.

For more information about ratings and reviews, see "Managing Customer-Generated Content," page 324.

3.6   Generating Reports

Magento provides a variety of reports that you can access at any time. These reports are available under the **Reports** menu at the top of the Admin Panel.

Some of the most important reports are described in "Reports," page 334.

4 Basic Configuration

This chapter describes how to configure the basic information for your web store. The other aspects of your web store to be configured are described in the subsequent chapters of this guide.

4.1 Accessing the Backend

All of the basic configuration tasks are performed in the Magento backend. The following describes how to access and log in to the Magento backend.

> *Tip:* *Immediately after you install Magento, you can easily open the backend by clicking the* **Go to Backend** *button on the last page of the Magento Installation Wizard. We recommend that you bookmark the backend page for easy access.*

To access the Magento backend administration environment:

1. Use a standard web browser to navigate to the backend by entering the URL that you specified in the Magento Installation Wizard with the addition of the suffix **/admin** (or the one that you specified during installation). For example, if you specified **mywebstore.com** as the base URL, then use http://www.mywebstore.com/admin to access your backend.

   > *Note:* *The Magento EE Demo Store backend can be accessed at:* *http://enterprise-admin.magentocommerce.com/index.php/admin/*

   The Log in to Admin Panel page is displayed, as shown in Figure 46.

Figure 46.   Backend Login Page

2. Log in using the user name and password that you created during the installation process.

   > *Note:* *The backend of the Magento Demo Store can be accessed using the* **User Name:** **admin** *and* **Password: 123123**

3. Click the **Login** button to display the administration panel, as shown in Figure 47.
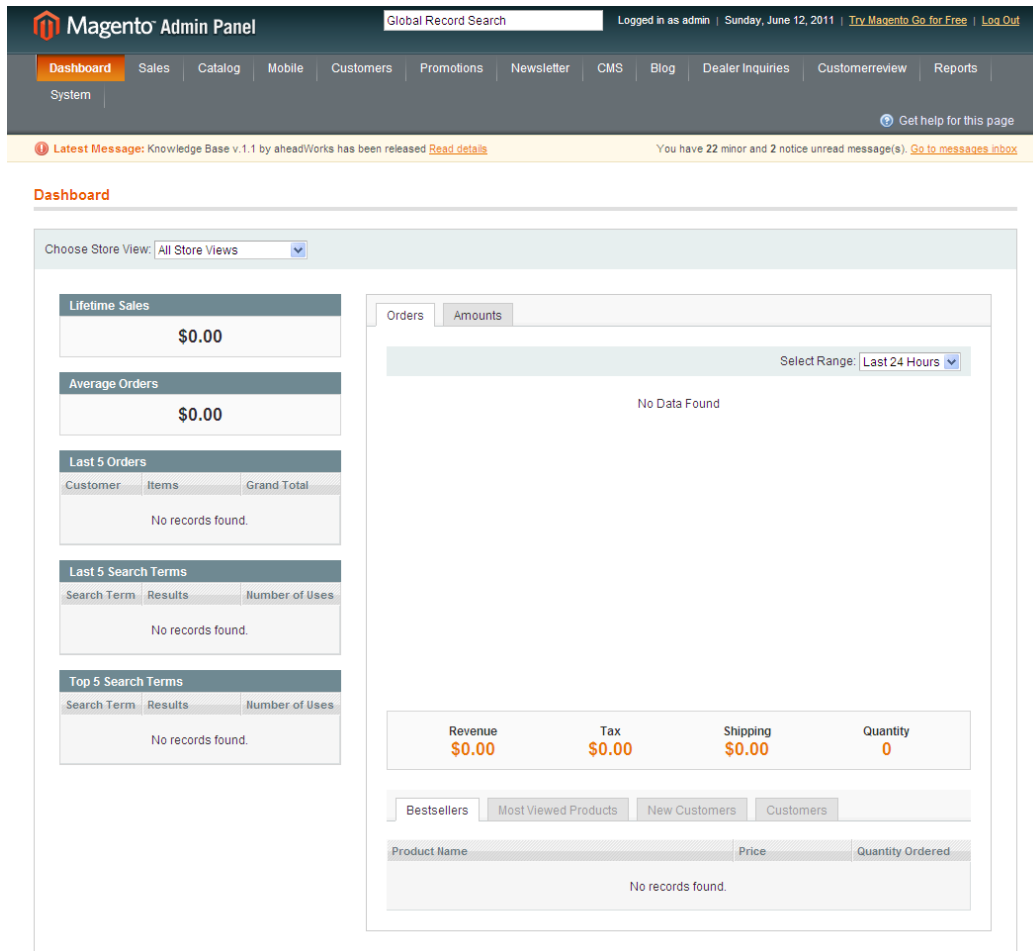
Figure 47.   Magento Backend

4. After you log in, the Magento messages that you have not yet read are displayed, such as the one shown in Figure 48.
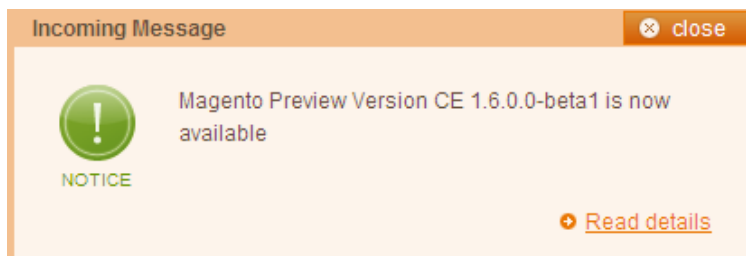
Figure 48.   Incoming Message Notice

Additionally, information about other messages is shown in a bar just under the menu (see Figure 49). See "Managing Administrator Messages," page 29, for more information about managing these messages.

Figure 49.   Message Bar

4.2   Store Hierarchy

Among the first things you will want to do is plan your store hierarchy, that is, the arrangement of websites, stores, and store views. When Magento is installed, a "Main Website," a default store, and a default store view are created. You will want to create additional websites, stores, and store views, depending on the breadth of the items you are selling and the composition of your target markets.

To be able to create these entities, you need to create at least one root category first. See "Managing Categories," page 62, for more information about creating root categories. For now, determine how you want your store hierarchy set up.

Websites

Suppose you want to sell machine shop equipment online, and your spouse wants to sell handmade baskets. It is unlikely that you would sell both of these product lines in a single store, but in a single Magento installation, you can do both by setting up separate websites. Each website can have its own domain name. The websites can be set up to share customer data, or not to share any data.

Stores

For your handmade baskets website, you might want to set up two stores, one specializing in wicker and one for other materials. You can set up two root categories (one for wicker items and one for other items) and assign one to each store. (See "Managing Categories," page 62, for more information about setting up root categories). Several stores of one website can have different independent domain names as well, but it should be configured on the store view level of each store.

Store Views

Your market research indicates that about half of your potential customer base speaks English, and the other half speaks Spanish. Within each store, you can create separate store views, one for English and one for Spanish. The store views share the same catalog, but each is presented in its respective language. Customers use a drop-down menu on the frontend to switch from one store view to another.

4.3   Store Pages General Configuration

This section describes how to configure general aspects of your frontend pages. These configurations are performed in the Configuration area of the Admin Panel.

To access the Configuration section, select **System > Configuration**. The tabs in the left column provide access to configuration options for different aspects of your Magento instance. The Current Configuration Scope drop-down menu in the upper left corner of the page enables you to select the hierarchy level (website, store, store view) to which the configuration will be applied. To apply configuration settings at the global level (that is, for all your websites, stores, and store views), leave **Default Config** selected.

To open the options for configuring your store pages design click the **Design** tab in the left column. The Design page opens with a number of field sets. See Figure 50.
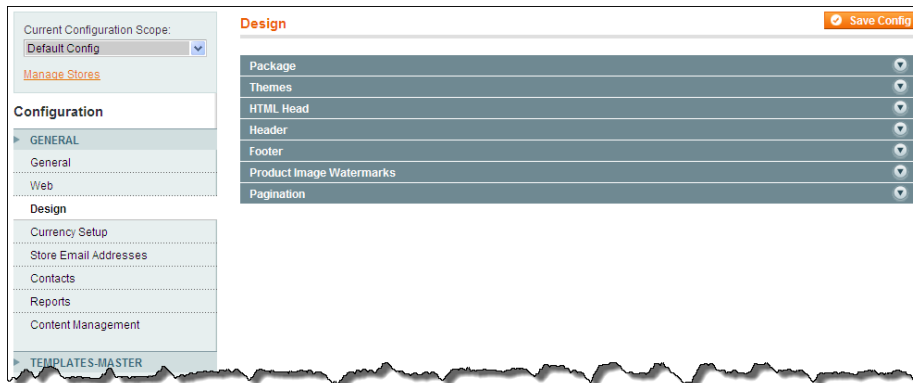
Figure 50.   Design Configuration Page

HTML Head Field Set

The settings in the **HTML Head** field set on the Design tab are used to define general information about your store's pages. These settings may not be visible to your customers, but they are important for things such as traffic analytics and search engine optimization.

To define general page features:

1. Click the **HTML Head** heading to expand the field set as shown in Figure 51.

Figure 51.   HTML Head Field Set

2. Click the **Browse** button and select an icon file (on your local computer) to use as a "favicon." This small icon appears in the address bar of your customers' browsers.

3. In the **Default Title** field, specify the page title to be displayed in browsers for those pages that do not have their own title. This information is also used to improve search engine visibility and performance.
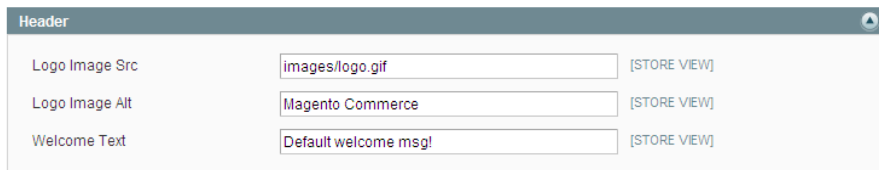
4. In the **Title Prefix** and **Title Suffix** fields, specify a prefix and a suffix to be appended to the pages of your web store that have their own title, such as a prefix of **My Web Store**.

5. In the **Default Description** and **Default Keywords** fields specify words that describe your web store to be used by search engines when page-specific information is not provided. Keywords must be separated by commas.

6. Optional. Select **Display Demo Store Notice** to display a notice at the top of every page that indicates that this is a demo store and that no transactions will be processed. This option is useful while you are setting up your store prior to opening for business.

7. Click the **Save Config** button on the top right of the page.

Header Field Set

The options on the **Header** field set define the look of the top of each page in your store.

To define the header of each web store page:

1. Click the **Header** tab to expand the section as shown in Figure 52.

Figure 52.   Header Field Set

2. In the **Logo Image Src** field, specify the logo graphic file to appear on the top left of each page of your web store, as shown in Figure 53 for the Magento Demo Store. Make sure that you name your logo something other than **logo.gif,** so it does not get overwritten in future upgrades.

Figure 53.   Page Header Section

Note: *You will need to upload the image file using an FTP client to the skin/frontend/default/default/images/ directory or to your own skin folder in your Magento installation.*

3. In the **Logo Image Alt** field, specify the alternative text to be displayed when your customers hover their mouse cursors over the logo image in your web store.

4. In the **Welcome Text** field, specify the welcome message to be displayed on the top right of your web store for customers that are not logged in, as shown in Figure 53.

5. Click **Save Config** to save your changes.

Footer Field Set

The options in the **Footer** field set define what is displayed at the bottom of each web page in your store.

To define the footer of your web store pages:

1. Select the **Footer** option to expand the page to display the footer options, as shown in Figure 54.
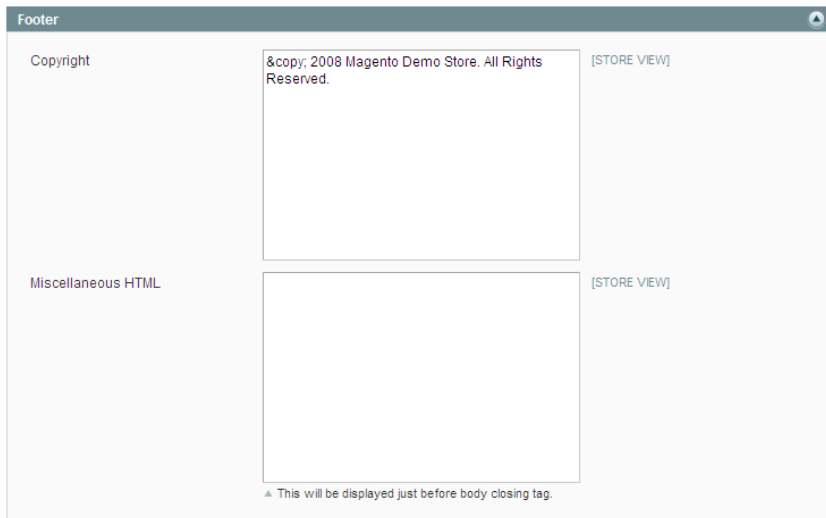
Figure 54.   Footer Field Set

2. In the **Copyright** field, specify your web store's copyright information.

3. In the **Miscellaneous HTML** field, specify the custom HTML code to be added to the end of the page code that is generated by Magento. This area is usually used for adding tracking scripts that track your customers' activity on the site.

4. Click **Save Config** to save your changes.

4.4   Store Contacts Configuration

This section describes how to configure store email addresses that are used for internal and external email communications and the Contact Us feature.

Web Store Emails

The Store Email Address page of the system configuration enables you to specify email addresses and contact names to be used when sending email to customers upon registration and at all steps of the order lifecycle. These email address are also used for sending error reports to the store administrator.

To define web store email addresses:

1. In the Admin panel, select **System > Configuration >** GENERAL **> Store Email Address.** Here you can configure the various email addresses used for sending emails from your web store to your customers. See Figure 55.

Figure 55.   Store Email Addresses Page

2. In the **Current Configuration Scope** drop-down menu in the left upper left corner, select the scope for which you want these configurations to apply. All fields on this page can have different values for each store view.

3. In each **Sender Name** field, specify the name of the sender or department from which the emails are sent.

4. In the **Sender Email** field specify the email address used for sending the emails.

5. Click **Save Config** to save your changes.

Note: *See "Customizing Transactional Emails," page 156, for more information about emails.*

Contacts

These options define the email to which customers send requests when using the **Contact Us** option at the bottom of the pages of your web store.

To define your web store contact information:

1. In the Admin Panel, select **System > Configuration >** GENERAL **> Contacts** to display the Contacts page, as shown in Figure 56.

Figure 56.   Contacts Page

2. In the **Current Configuration Scope** drop-down menu in the left upper left corner, select the scope for which you want these configurations to apply.

3. In the **Enable Contact Us** drop-down menu, select **Yes** to enable customers to contact you by email with the **Contact Us** link, or select **No** to disable this communication method.

4. In the **Send Emails To** field, specify the email that is used for receiving feedback when a customer uses the **Contact Us** option in the store.

5. In the **Email Sender** drop-down menu, select the email address from which feedback messages are sent.

6. In the **Email Template** drop-down menu, select the template to be used for the Contact Us form displayed on the frontend. You can create custom email templates. For more information, see "Customizing Transactional Emails," page 156.

7. Click **Save Config** to save your changes.

Sales Emails

You can configure Magento to send emails that confirm an order, invoice, shipment, or credit memo to both registered customers and store guests.

To configure sales emails sent to customers:

1. In the Admin Panel, select **System > Configuration >** SALES **> Sales Emails**.

2. In the **Current Configuration Scope** drop-down menu in the left upper left corner, select the scope for which you want these configurations to apply.

3. Click the **Order** heading to expand the Order field set, as shown in Figure 57.

Figure 57.   Sales Emails Page

4. In the Order field set, configure the following options:

    ❖ In the **Enabled** drop-down menu, select **Yes** to enable new order confirmation emails to be sent.

    ❖ In the **New Order Confirmation Email Sender** drop-down menu, select the email address to be used for sending the new order confirmation.

    ❖ In the **New Order Confirmation Template** drop-down menu, select the template to be used for the for the order confirmation emails sent to registered customers.

    ❖ In the **New Order Confirmation Template for Guest** drop down menu, select the template to be used for the for the order confirmation emails sent to guest customers.

    ❖ In the **Send Order Email Copy To** field, specify the email address to which a copy of the new order confirmation email is sent. This feature helps you to keep track of the new orders that come in.

5. Configure the options on the other field sets on this page.

6. Click **Save Config** to save your changes.

4.5   Shipping Settings

This section describes how to specify shipping options, such as the origin used for shipping rate calculations and whether to enable the multiple shipping destinations feature.

Configuring shipping settings and shipping methods enables you to provide customers a selection of shipping methods with shipping rates during checkout. Magento includes extensive integration with major shipping carriers; for USPS, DHL, FedEx, and UPS, you can create shipment orders and print shipping labels right from the Magento Admin Panel. See "Shipping," page 165, for details about shipping system integration.

To define general shipping options:

1. In the Admin Panel, select **System > Configuration >** SALES **> Shipping Settings**.

2. In the **Current Configuration Scope** drop-down menu in the left upper left corner, select the scope for which you want these configurations to apply.

3. Click the **Origin** and **Options** tabs to expand the page to display the shipping options, as shown in Figure 58.

Figure 58.   Shipping Settings Page

4. Configure the options to match your store.

5. Click **Save Config** to save your changes.

See "General Shipping Settings," page 165, for details about configuring shipping methods.

4.6   Cookie Restriction Mode

Magento can notify store customers about cookies that are being used by your store. The feature is called Cookie Restriction Mode. It is aimed at helping store owners to comply with the European Union Privacy and Electronic Communications Directive and its amendment. According to these regulations, websites cannot use cookies until a user consents.

Enabling and Configuring Cookie Restriction Mode

To enable the cookie restriction mode:

1. Log in to the Magento Admin Panel.

2. Navigate to **System** > **Configuration** > GENERAL > **Web**.

3. In the **Current Configuration Scope** in the upper-left corner of the page select the desired website.

4. Expand the **Session Cookie Management** field set.

5. In the **Cookie Restriction Mode** field select **Yes**.

6. To save the changes click the **Save Config** button.

> *Important Note (for Magento Enterprise Edition only): Enabling the cookie restriction mode enables the notification of customers about cookies being used by a store. To actually stop using cookies which are related to customer private information, such as cookies storing the customer ID or recently compared products list, you need to disable the Full Page Cache (FPC) functionality. FPC can be disabled under **System** > **Cache Management**. For more information about full page cache, see "Full-Page Caching," page 373.*

Cookie Restriction Mode: Implementation Details

After the cookie restriction mode is enabled, a message is displayed on the top of each page in the store front. The message informs customers that the website requires cookies to provide all of its features and requests users to confirm that they are informed and consent. See Figure 59.

Figure 59.   Cookie Restriction Warning Message

The message contains a link to the Privacy Policy page, which provides a list of cookies being collected and explains on how they are used. The default content of this page can be changed under **CMS** > **Pages** > **Manage Content** > *Privacy Policy.*

After a customer clicks **Allow**, the message disappears.

If a customer does not click **Allow**, the message persists, but the store functionality is available as usual. However, Google Analytics cookies are not stored in this case, even if the Google Analytics functionality is enabled.

Cookies Used in Magento

The following table lists cookies, which are always stored by Magento on the customer's side.

Cookie Name	Cookie Description
USER_ALLOWED_SAVE_COOKIE	Indicates whether a customer is allowed to use cookies
external_no_cache	A flag which indicates whether caching is disabled
persistent_shopping_cart	Session key
Stf	If links to a product were sent to friends, this cookie stores the timestamps in the '$timeStamp1, $timestamp2, ..., $timestampN' format.

Cookie Name	Cookie Description
pollN	A poll ID to indicate that the poll has been already voted.
frontend	Session ID
guest-view	Allows guests to edit their orders.

The following table contains a list of cookies, which Magento additionally stores on the customer's side if the Full Page Cache functionality is enabled.

Cookie Name	Cookie Description
CUSTOMER	Hashed value of a customer ID in the 'customer_$customerId' format
CUSTOMER_INFO	Hashed value of a customer group ID in the 'customer_group_$customerGroupId' format
NEWMESSAGE	Indicates whether a new message has been received
CART	Hashed value of a quote ID in the '$quoteId' format
COMPARE	List of product IDs added by customer to compare list in the '$productId 1, $productId 2, ..., productId N' format
POLL	ID of a recently voted poll
RECENTLYCOMPARED	A customer's list of recently compared product IDs in the '$productId 1, $productId 2, ..., productId N' format
WISHLIST	Hashed list of products added to Wishlist in the '$productId 1_$productId 2_..._productId N' format
WISHLIST_CNT	Hashed number of items in the customer's Wishlist in the 'wishlist_item_count_$productCount' format
CUSTOMER_AUTH	Indicates whether a customer is logged in. A hashed value of 'customer_logged_in_0|1'
CATEGORY_INFO	Stores the category info on the page. This allows displaying pages more quickly.
LAST_CATEGORY	Recently visited category ID in the '$categoryID' format
VIEWED_PRODUCT_IDS	Recently viewed product IDs in '$productId 1, $productId 2, ..., productId N' format
currency	Code of the currency selected by a customer ('USD', 'UAH', 'GBP', etc.)
store	Store view code
NO_CACHE	Indicates whether it is allowed to use cache
LAST_PRODUCT	Last viewed product ID

If the Google Analytics module is enabled and using cookies is allowed by a customer, Magento stores the following Google Analytics cookies:

- _utma
- _utmb_
- _utmc
- _utmz.

For a description of the Google Analytics cookies, refer to the official Google documentation.

5   Setting Up Your Catalog

This chapter describes how to create a catalog for your Magento web store. "Product Categories and Product Attributes," page 62, describes how to add products and define their attributes.

5.1   Overview

The best workflow for creating your products is as follows:

Step 1	Setting Up Catalog Defaults	page 54
Step 2	Creating Categories	page 63
Step 3	Creating Attributes	page 73
Step 4	Creating Attribute Sets	page 76
Step 5	Creating a New Product	page 80
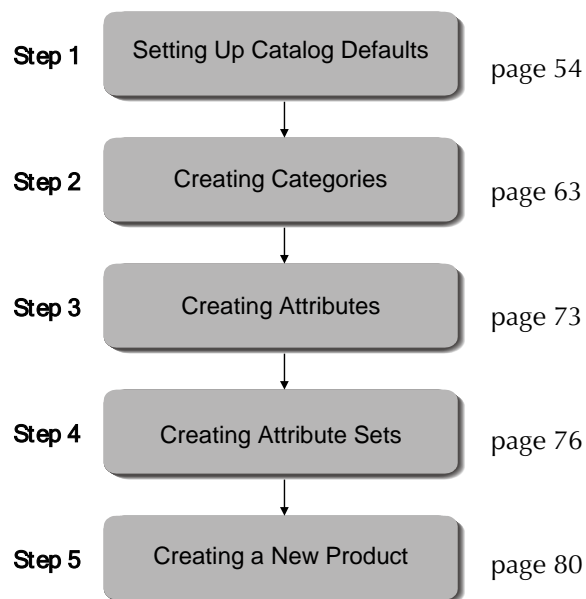
The following describes the process depicted above:

❖ **Step 1:** "Setting Up Catalog Defaults**,**" page 54. This step describes how to set basic catalog default configurations that define its behavior.

❖ **Step 2:** "Creating Categories," page 63. The next step is to create the categories that will contain your products. Each product can be assigned to one or more categories.

A Magento store with Sample Data provides three such categories: **Furniture**, **Electronics**, and **Apparel**. Categories can have multiple levels of subcategories. A customer can click on a category to see a drop-down menu of subcategories, such as **Cell Phones**, **Cameras**, and **Computers**, as shown in Figure 60.

Figure 60.   Categories and Subcategories

❖ **Step 3: Creating Attributes,** page 73. Next, you can create the attributes that represent a product's characteristics. Attributes are a powerful Magento concept to make finding and comparing products easier.

❖ **Step 4: Creating Attribute Sets,** page 76. Attribute sets are logical groups of attributes that simplify the process of assigning attributes to a product. They do not appear in the frontend.

  o **Creating a New Attribute Group,** page 78. Part of the process of creating an attribute set is to create attribute groups. These groups determine how attributes appear in the backend when defining a product.

❖ **Step 5: Creating a New Product,** page 80. This step shows how to fill in product information in order to maximize conversion and how to assign Categories to help customers navigate to the products of interest to them. Attribute sets and attributes are assigned to products to describe them, provide multiple options and help the customer search through the product list.

5.2   Setting Up Catalog Defaults

The first step to creating your catalog is to configure the catalog system default settings. In many cases, these settings can be overridden at lower levels (such as in individual categories and products).

To configure catalog defaults:

In the Admin Panel, select **System > Configuration >** CATALOG **> Catalog**. In the **Current Configuration Scope** drop-down menu, select the scope of this configuration. The following describes some of the more important sections in the page.

Frontend

This section determines how your products are shown on the frontend catalog pages. See Figure 61.

Figure 61. Catalog Frontend Configuration

❖ **List Mode**

- o **Grid Only**: The products are displayed only in a grid structure.
- o **List Only**: The products are displayed only in a list.
- o **Grid (Default)/List**: The products are displayed in a grid structure by default, but your customers are able to switch to list.
- o **List (Default)/Grid**: The products are displayed in a list structure by default, but your customers are able to switch to grid.

❖ **Products per Page**: For each display type (List and Grid), do the following:

- o Specify, in a comma-separated list, what the options are for the number of products to display on a product page. These options will be listed in a drop-down menu on the frontend.
- o Specify how many products are displayed on a page by default.

❖ **Allow All Products per Page:** Select whether the customers are allowed to display all products on a single category page.

❖ **Product Listing Sort By:** The products are sorted, by default, by the selected attribute. The **Best Value** products are featured products as determined by the store administrator; for more information, see "Creating Categories," page 63. The customer can select from the other options on a per-page basis.

You can configure attributes to be used for sorting using the **Used for Sorting in Product Listing** setting of an attribute. For details, see "Managing Product Attributes," page 72.

❖ **Use Flat Catalog Category:** Selecting **Yes** "flattens" multiple category database tables into a single table for increased performance on the frontend. Magento recommends selecting **Yes** for any size catalog.

❖ **Use Flat Catalog Product:** Selecting **Yes** "flattens" multiple product database tables into a single table for increased performance on the frontend. Magento recommends selecting **Yes** if your catalog contains more than 1,000 SKUs.

❖ **Allow Dynamic Media URLs in Products and Categories**: Selecting **No** can improve performance.

Sitemap

This section determines how your site map is displayed to customers.

❖ **Use Tree Like Category Sitemap:** Selecting **Yes** displays the site map as a tree, showing all categories and subcategories as branches. Selecting **No** displays the categories and subcategories in a single column.

❖ **Minimum Lines per Page:** Determines the number of lines on each page when the site map is distributed among several pages.

Product Reviews

This section enables unregistered guests in your store to write product reviews.

Product Alerts

You can enable your customers to subscribe to two types of customer alerts by email: price change alerts and in-stock alerts. For each alert type, choose whether to enable users to subscribe to it, and select the email template to use. Also, select a sender display name, which applies to both alert types (see Figure 62). For more information on how to configure email templates and email sender addresses, see "Customizing Transactional Emails," page 156.

Figure 62.   Product Alerts Configuration

The price change alert creates a **Sign up for price alert** link in every product page. Clicking this link subscribes your customers to this alert for that particular product so that they receive an email each time the product price is changed. This includes adding or changing **Special Prices** in addition to the regular **Price** field.

The in-stock alert creates a link called **Sign up to get notified when this product is back in stock** in every **Out of Stock** product. Clicking this link subscribes your customer to this alert so that they receive an email when the product status changes to **In Stock**.

For each product, there is a tab listing all the customers subscribed to either of these alerts.

Product Alerts Run Settings

These settings enable you to select how often Magento checks for changes that require alerts to be sent. Additionally, you can select the recipient, sender, and template for emails that are sent if the sending of alerts fails.
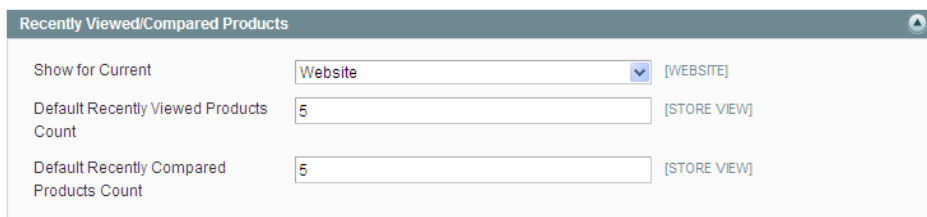
❖ **Frequency:** Choose how often product alerts are sent out: **Daily**, **Weekly**, or **Monthly**.

❖ **Start Time:** Choose what time of day the product alert process starts. This time should be after any price or inventory updates are performed.

❖ **Error Email Recipient:** Identify the email address of the person (normally a store administrator) who should receive an email notification when there is an error in the product alert process.

❖ **Error Email Sender:** Select the role that the email will be "from."

❖ **Error Email Template:** Select the email template to use for product alert error notifications. For more information, see "Customizing Transactional Emails," page 156.

Product Image Placeholders

This section enables you to specify an image for each of the sizes that are used instead of the product image, if it is missing.

Recently Viewed/Compared Products

This feature is described in detail in "Recently Viewed," page 15. The configuration section enables you to specify how many products are shown by default in each list. See Figure 63.

Figure 63.   Recently Viewed/Compared Products Settings

Price

The **Price** section contains only the **Catalog Price Scope** drop-down menu, in which you can select the scope of the base currency (**Global** or **Website).**

Layered Navigation
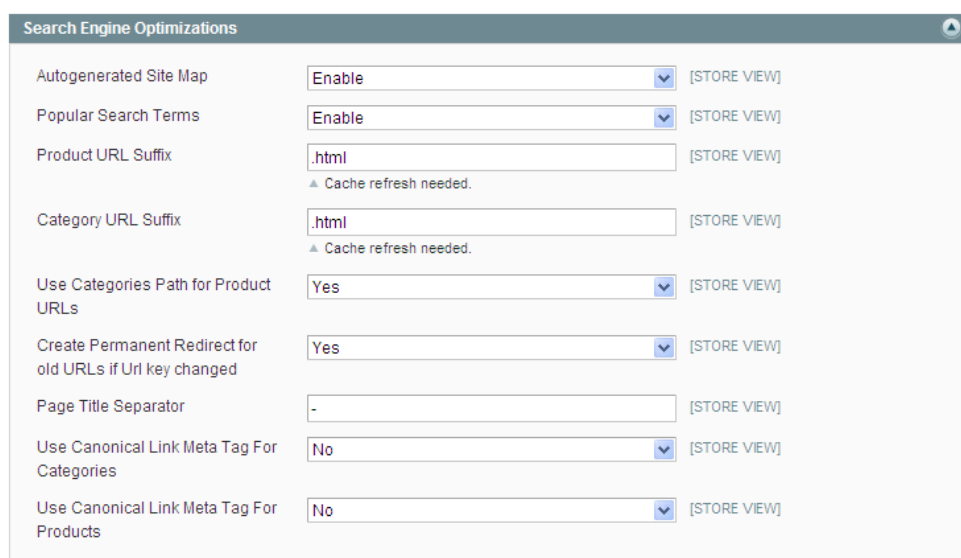
The **Layered Navigation** section enables you to choose whether the price ranges that are displayed in the layered navigation tool are calculated automatically or manually. If you select **Manual**, the **Default Price Navigation Step** field becomes visible, enabling you to specify the default size of the price ranges.

Category Top Navigation

The **Category Top Navigation** section enables you to define how many levels of subcategories are displayed by clicking on a category in the top navigation bar on the frontend. Setting this value to 0 (zero) enables all levels to be displayed. If you have a large number of subcategory levels, this can potentially make it difficult for the user to navigate.

Search Engine Optimizations

In order to make your site more search engine friendly, configure the following parameters, as shown in Figure 64:

Figure 64.   Search Engine Optimization Settings

❖ **Auto generated Site Map:** Enable this feature to display a **Site Map** link in the footer of the frontend pages. This enables a customer to view an automatically generated site map including a list of all of your existing categories. In addition to the auto-generated site map, Magento enables integration with Google Sitemap. More information is provided on the following pages.

❖ **Popular Search Terms:** Enable this feature to display a **Search Terms** link in the footer of the frontend pages. This enables customers to link to a list of all search terms. This is an SEO feature because each of these search terms counts as a link to your site and is explored by search engines to discover content on your site.

❖ **Product URL Suffix** and **Category URL Suffix**: These options determine which suffix is displayed on each product and category page. Typically this value will be **.html** or **.htm**. When you change this value (and click **Save Config**), you must perform a cache refresh by selecting **System > Cache Management** and clicking **Flush Magento Cache**.

❖ **Use Categories Path for Product URLs:** This option determines how the URL is composed. Select **Yes** to specify that the URL links for products include the associated category and a separate link is generated for each associated category. Select **No** to specify that the URL rewrites include only the product name and that there is only one link for each product, regardless of how many categories the product is associated with.

❖ **Create Permanent Redirect for old URLs if URL key changed**: Selecting **Yes** automatically creates a redirect for the old URL that points to the new URL if a page is moved. Doing so eliminates the "404 Not Found" error message that customers see if a page they had bookmarked is moved.

❖ **Page Title Separator**: Specify a character to replace the space character ( ) with when the system uses the page title to construct the page's URL. Typically you would use an underscore (_) or hyphen (-).

❖ **Use Canonical Link Meta Tag For Categories** and **Use Canonical Link Meta Tag For Products:** Select whether to add a tag to each category or product page that points to a "preferred" URL for search engines to index when encountering pages that contain the same content (but which may be sorted differently, for instance).

Catalog Search

The options in this section define how the catalog search feature behaves.

❖ **Minimal Query Length**: Defines the minimum number of characters that the customer must specify in the **Search** field on the frontend.

❖ **Maximum Query Length**: Defines the maximum number of characters that the customer may specify in the **Search** field.

❖ **Maximum Query Words Count**: Define the maximum number of terms that can be specified in the **Search** field. This limit applies to the "Like" search type only.

❖ **Search Type**: Define the type of search that is performed:

    o **Like**: Includes only results that are close in spelling to the specified search terms.

    o **Fulltext**: Includes only results that exactly match the specified search terms.

    o **Combine (Like and Fulltext)**: Includes both exact matches and close matches.

❖ **Apply Layered Navigation if Search Results are Less Than**: Defines the maximum number of results for which layered navigation can be applied. If the number of results is more than this number, then the results are presented as a simple list. If you specify 0, then layered navigation is always applied. Limiting the number of results can increase performance.

Downloadable Products Options

This section controls the settings for products of Downloadable type. The most important settings are the following, as shown in Figure 65:

Figure 65. Downloadable Products Options

❖ **Order Item Status to Enable Downloads:** Controls whether customers can access their downloadable product links immediately after the order is placed or only after the invoice is created for the order.

❖ **Default Maximum Number of Downloads:** Controls how many times a downloadable product may be downloaded by the customer after it has been purchased.

❖ **Shareable:** Setting this option to **Yes** enables non-registered customers (guest customers) to access their downloads. This is the only option for customers to access their products if you want to offer guest checkout or quick checkout methods, such as PayPal Express or Google Checkout. This setting can be overridden at the product level.

❖ **Default Sample Title and Default Link Title:** These settings control what is displayed throughout the store when referring to samples and downloadable products (links).

❖ **Open Links in New Window**: Controls whether the download page opens in a new window.

❖ **Use Content-Disposition**: Controls whether the content is opened in a browser window or downloaded.

❖ **Disable Guest Checkout if Cart Contains Downloadable Items:** This setting disables the Guest Checkout option only if there are downloadable items in a cart, and leaves it enabled if a customer is purchasing other products. If you set this option to **Yes**, be sure to set the **Shareable** option to **Yes** as well.

Date and Time Custom Options

The options in this section control how dates and times are displayed in your store.

❖ **Use JavaScript Calendar:** Enables your store to present a JavaScript-powered calendar date picker in any field that requires the customer to select a date. When this option is set to **No,** then drop-down menus are provided to select the date and time.

❖ **Date Fields Order** and **Time Format:** Select the order in which the day, month, and year values are presented in the format xx/yy/zz., and select a 12-hour (a.m./p.m.) or 24-hour time format. These fields are important for store views that are targeted for specific countries that use date and time formats that are different from your local custom.

❖ **Year Range:** Indicate the range of years that is available for selection in either the JavaScript calendar or calendar drop-down menus. Use a four-digit year format.

6   Product Categories and Product Attributes

6.1   Managing Categories

This section describes how to display, create, and edit categories and subcategories.

The products in the web store are grouped into categories. Categories enable you to give your store structure and form. In Magento, each store you create is assigned to a unique category. Any other category that you want to use in your store must be created as a subcategory. All categories are technically considered subcategories because you are placing them under the root category. See Figure 66.
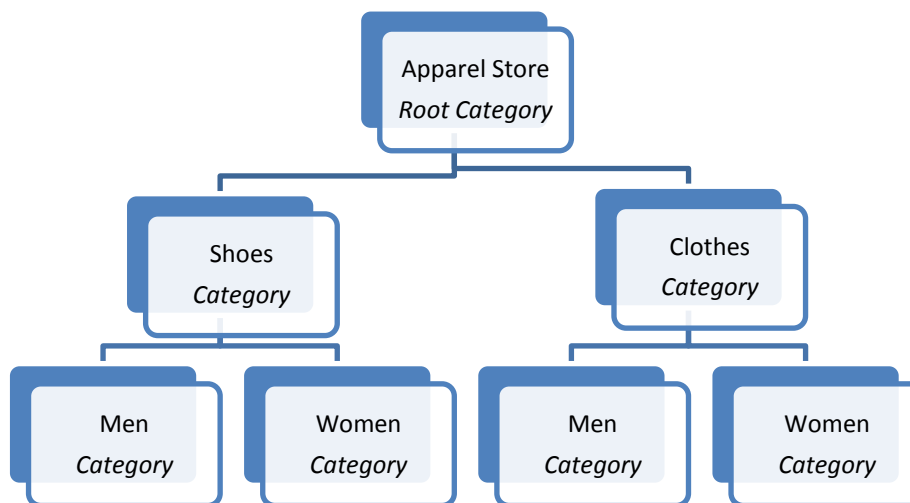
Figure 66.   Example Category Structure

The way category names are displayed on the frontend depends on the layout. If the default theme is used for the web store, categories are shown in a bar near the top of the store web page.

Each product can be assigned to one or more categories, as described in "Finding the Right Products," page 8.

Displaying Categories

To display a list of all defined categories:

Select **Catalog > Manage Categories**. The categories are listed in a tree view on the left, as shown in Figure 67.
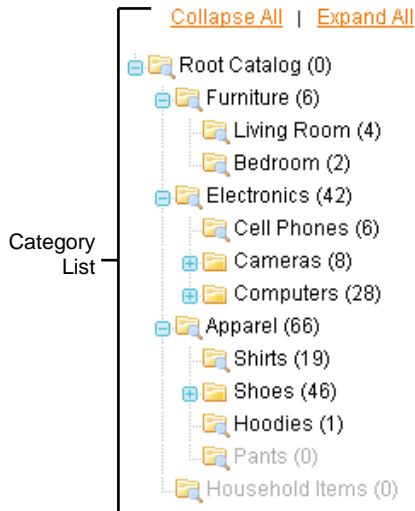
Figure 67.   Category List

 If you have loaded Sample Data, these sample categories (Furniture, Electronics and Apparel) will appear in the category tree. Disabled categories are listed in gray text.

Creating Categories

This section describes the most important steps in creating a category.

To create a new category:

❖ To create a new root category, make sure that **Choose Store View** in the upper-left corner of the page is set to **Default Config**, and click **Add Root Category**.

❖ To create a subcategory, select the parent category (it can be either a root category or a category) in the list and click **Add Subcategory**.

Four tabs of information are provided to describe this category: **General Information**, **Display Settings**, **Custom Design**, and **Category Products**. Click each tab and specify the requested information, as described below.

Note: *Required fields appear with a red asterisk (*).*

General Information Tab

Most of the fields in this page are self-explanatory. In this tab, you are asked to provide a category name, description, images (used to represent your category) as well as meta keywords and description for better search engine positioning. See Figure 68.

Figure 68.   Create a New Category – General Information

1. Specify a name for this category in the **Name** field.
2. Set the **Is Active** field to **Yes** to specify that this category appears in the store.

3. In the **URL key** field you can specify a relative URL path which can be specified in place of the standard Target Path. It is "search engine friendly" because it can use the name of the category instead of the ID number. If you leave this field blank, Magento will automatically generate a URL with the name of the category upon creation of the category. If you specify a value here manually, you cannot use spaces in this field. The **URL key** field is not displayed for root categories.

4. For **Thumbnail Image**, use the **Browse** button to select and upload a thumbnail image to represent the category.

5. Specify a description in the **Description** text box. This description is presented on the frontend.

   Note: *You can use HTML tags in this text box. Alternatively, click the* ***WYSIWYG Editor*** *button to open a full-function HTML editor. The "What You See Is What You Get" (WYSIWYG) Editor includes a spelling checker, for which you need to download and install a plug-in for your browser.*

6. The **Image** field is used for a category image. Click the **Browse** button next to the field to select the file. This image will appear in the frontend for each category's page between the category name and the content.

7. In the **Page Title** field, specify the title of the page, which will be displayed on the browser tab header when the customer opens this category page.

8. In the **Meta Keywords** and **Meta Description** text boxes, specify the keywords and description for search engines to use for this category when indexing your site.

9. Select **Yes** for **Include in Navigation Menu** so that the category will appear in the navigation menu on the frontend.

10. Click **Save Category** to save your changes.

Display Settings Tab

The **Display Settings** tab enables you to specify how this category is presented to the customer. See Figure 69.

Figure 69.   Create a New Category – Display Settings

1. In the **Display Mode** field, select one of the following options to specify how you would like your category page to appear:

    ❖ Static block only

    ❖ Static block and product list below it

    ❖ Product list only

2. In the **CMS Block** field, select the static block that you would like to be shown for this category (if selected in the **Display Mode** field). This block must first be created in the CMS section; for more information, see "Managing CMS Pages," page 145.

    ❖ In the **Is Anchor** field, select **Yes** to specify that this category page is an anchor. Anchors are used for the layered navigation in Magento, as described in "Layered Navigation," page 68.

        o If you set the category to be an anchor for Layered Navigation, then your web store displays the subcategories of this category in the **SHOP BY** panel on the left. This area also shows a linked list of the filterable attributes of the products in this category and its subcategories.

        o Figure 70 shows the **SHOP BY** panel for the Apparel category, which is set as an anchor.
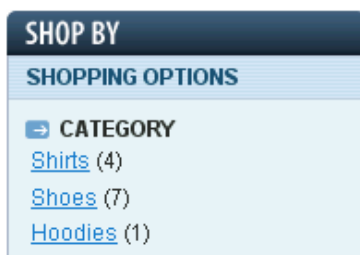
Figure 70.   Anchored Category

3. For **Available Product Listing Sort By**, specify the attributes by which the customer can sort the list of products in this category. By default, all available attributes can be used for sorting; clear the **Use All Available Attributes** check box to modify the list.

4. For **Default Product Listing Sort By**, select the attribute by which the product list is sorted by default. This is set in the catalog configuration (see "Setting Up Catalog Defaults," page 54), but you can clear the **Use Config Settings** check box to select a default sorting attribute for this particular category.

5. For **Layered Navigation Price Step**, specify the size of the price range to be used when calculating the price "buckets" for the Layered Navigation. This is set in the catalog configuration, but you can clear the **Use Config Settings** check box to specify a price range size for this particular category.

Custom Design Tab

The **Custom Design** tab contains additional settings to control the theme and layout updates that are used for this category page. Depending on the settings they can also affect child pages as well. All of these settings are optional. For more information about custom designs and page layouts, see "Design and Content," page 141.

1. For **Use Parent Category Settings**, choose **Yes** to "inherit" the settings of this subcategory from its parent category. Doing so ensures a consistent look within a category family, and disables all other settings on this page. This setting is not available for root categories.

2. For **Apply to Products**, select **Yes** to apply the category page settings to the product pages of the products in this category.

3. Select a custom design from the **Custom Design** drop-down menu. Magento comes with several custom designs already defined, and you can modify these custom designs or create your own. For more information, see "Managing CMS Pages," page 145.

4. For the **Active From** and **Active To** fields, select the start and end dates for this custom design to be applied to this category. If you do not select a start date, the custom design is applied immediately. If you do not select an end date, the custom design is applied to this category until you manually deactivate it.

5. For **Page Layout**, select a layout from the drop-down menu:

   ❖ **No layout updates**: Uses the default settings that come with the Magento installation

   ❖ **Empty**: Displays the category page without any objects, except for the content (products or static blocks only), category name, and view options (number to display per page, view as grid or list, and sort be options)

   ❖ **1 column**: Displays the contents, category name and view options, as well as the header, footer, search field, and navigation bar

   ❖ **Column on the left:** Adds the left column to the 1 column display, which by default includes the currency selection and layered navigation

   ❖ **Column on the right:** Adds the right column to the 1 column display, which by default includes the shopping cart view, Wishlist, compared products list, polls, and newsletter sign-up

   ❖ **3 columns:** Displays both the left and the right columns

6. The **Custom Layout Update** is essentially a static block, with a few differences. Rather than HTML, the structure must be in XML format. The Update will appear at the bottom of the page, below the products, whereas a static block will appear above the products (if the static block is set to display with products). The custom layout update will appear on the page only during the dates specified in the **Active From** and **Active To** date range.

7. Click **Save Category** to save your changes.

Catalog Products Tab

This tab enables you to specify the products that belong to this category. See Figure 71.

Figure 71.   Creating a New Category – Products

1. If needed, use the filter fields at the top of the table to filter the list of products. Click **Reset Filter** to clear all filter settings.

2. Select the check box in the left column for each product that belongs in this category. Remember that a product can be assigned to more than one category.

3. In the **Position** column, specify a whole number that indicates the order in which the product is listed when the products are sorted by **Best Value**. The product with a **Position** value of 1 is listed first, 2 is listed second, and so on. If more than one product has the same value for **Position**, the product with the lowest (that is, closest to 1) ID number is listed first.

4. Click **Save Category** to save your changes. You may need to refresh the page to display the category in the tree.

Editing Categories

To edit a Category:

Click on a category in the tree, edit its information and click **Save Category**.

Layered Navigation

What Is Layered Navigation?

Of course, you want the customers browsing through your site to find the products that interest them in the fastest possible way. Otherwise, your sales opportunities are lost. When a customer is confronted with a category containing 60 products spread across multiple pages, most customers simply leave the site when they cannot find what they need on the first page. Magento enables you to provide customers with the option to find the products that they want by making a selection from a variety of filters, such as price, manufacturer, or any other aspect of the products, as shown in Figure 72. Layered navigation information is shown on category listing pages while searching for products. Show your customers what they want and you will raise conversions!

The example in Figure 72 shows an enabled layered navigation filter by PRICE range and COLOR.
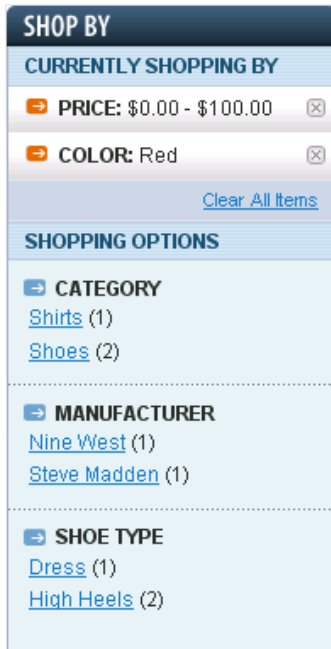
Figure 72.   Layered Navigation

Default Layered Navigation

In Magento, two properties appear as navigation filters by default: **PRICE** and **CATEGORY**.

❖ **PRICE:** Price ranges are selected logically in order to provide another filter for navigation. The ranges themselves are determined by the prices of products contained within them. There are never more than ten price ranges displayed at a time and products are distributed accordingly.

❖ **CATEGORY:** If you define a category as an **Anchor Category** (see "Display Settings Tab," page 65), its subcategories are displayed as layered navigation options. Figure 72 shows that the first filter is **CATEGORY** and it features two options: Shirts and Shoes. In this example, Shirts and Shoes are subcategories of the category that is represented by this layered navigation block.

Defining Layered Navigation Filters

The additional filters in Figure 72 are **Manufacturer** and **Shoe Type**. These are product attributes that have been selected as filterable. This is defined in the **Use in Layered Navigation** field under **Catalog** > **Attributes**, as described in "Creating Attributes," page 73.

There are two types of filterable attributes:

❖ **Filterable (with results):** Links appear only for values where the number of results (the number in parentheses next to each value) is greater than zero.

❖ **Filterable (no results):** Links appear for all values, regardless of the number of results.

In order for an attribute to appear as a layered navigation filter, the **Catalog Input Type for Storeowner** must be **Dropdown**, **Multiple Select** or **Price**. This controls the number of possible filter options and makes them consistent.

Price Layered Navigation

The Price Layered Navigation algorithm enables you to create price ranges so that products are evenly distributed among ranges. You can also split each range iteratively.

The enhanced configuration controls for the Price Layered Navigation feature were introduced in Magento EE version 1.12.

Configuring the Price Layered Navigation Algorithm

The algorithm for calculating the price layered navigation is configured in the Magento Admin Panel under **System** > CATALOG > **Catalog** > **Layered Navigation**.

To set and configure the new price layered navigation algorithm:

1. Log in to the Magento Admin Panel.

2. Navigate to **System** > **Configuration** > CATALOG > **Catalog**.

3. In the **Current Configuration Scope** in the upper left corner of the page, select the desired store view.

4. Expand the **Layered Navigation** field set. In the **Display Product Count** field, decide whether the number of products which fall into a price range will be displayed.

5. In the **Price Navigation Step Calculation** field select **Automatic (equalize product counts)**. Additional options appear.

   *Note: The **Automatic (equalize price ranges)** option of the **Price Navigation Step Calculation** field is similar to the **Automatic** option which was available in previous versions of Magento. If you select the **Automatic (equalize price ranges)** option, the previously existing price layered navigation algorithm will be used.*

6. In the **Display Price Interval as One Price** field, decide what will be the system behavior if all products which fall into a certain price range have the same price. Select **Yes** if you want to display a single price (not the range finite values).

7. In the **Interval Division Limit** field, specify the threshold for a number of products within a price range after which the range cannot be further split. The default value is 9.

8. To save the changes click **Save Config**.

Price Layered Navigation Algorithm: Customer Experience

The price layered navigation algorithm provides the optimal distribution of products among price ranges. In addition, the feature provides iterative splitting of price ranges.

Previously, if a customer selected to view products from a certain price range, there was no further subdivision to smaller price ranges on the resulting catalog page. For example, if a store customer clicked the **$0.00-$99** range, the price filter on the page with a list of products contained the selected range only. See Figure 73.
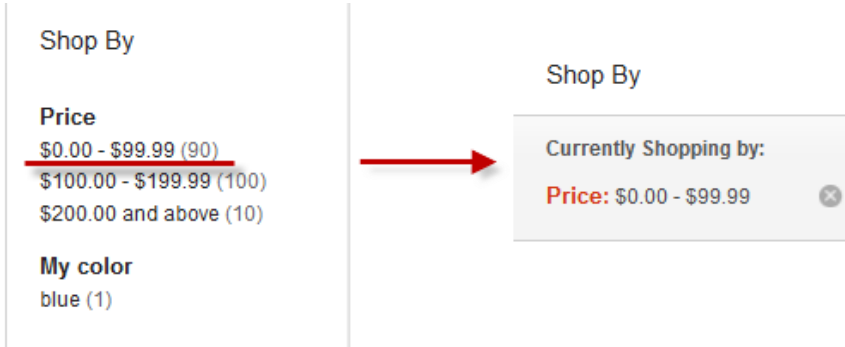
Figure 73. Price Layered Navigation Without Iterative Splitting

With the iterative splitting feature, after a customer chooses to view the **$0.00-$99** range, the price filter on the page with a list of products can contain several sub-ranges. See Figure 74.
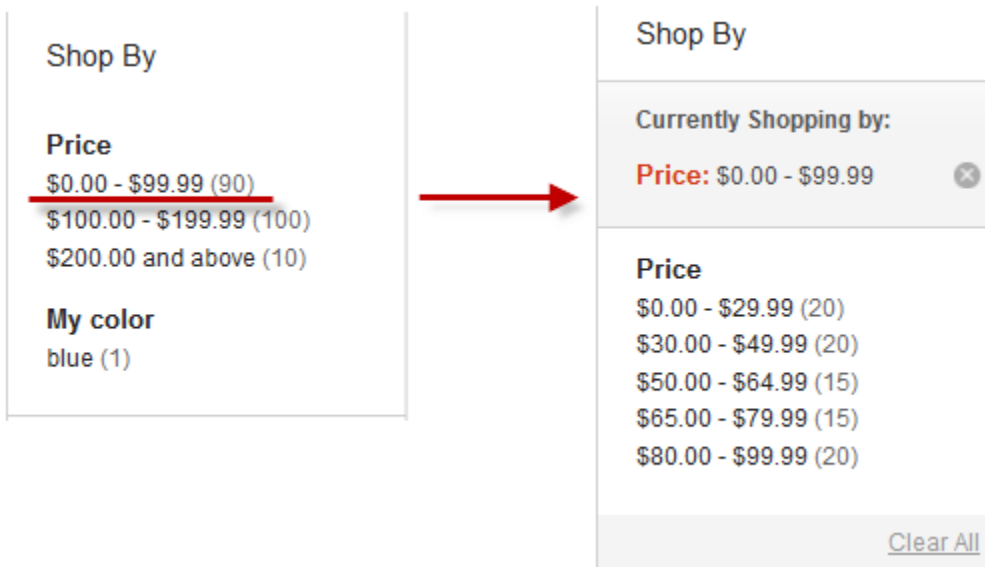
Figure 74. Price Layered Navigation With Iterative Splitting

6.2   Managing Product Attributes

What Is an Attribute in Magento?

An attribute represents a property of a product, such as its name, image, SKU, color, manufacturer, and so on. Attributes enable you to add new product properties without having to write a single line of code or to add any columns to your database. Understanding attributes is crucial for making your store easy to use for customers.

You assign attributes to your products in order to enable your customers and search engines to find them more easily. Your Magento web store automatically displays products according to their attributes, for easy accessibility by your customers, in the **SHOP BY** layered navigation panel on the left of your web store. See Figure 75.
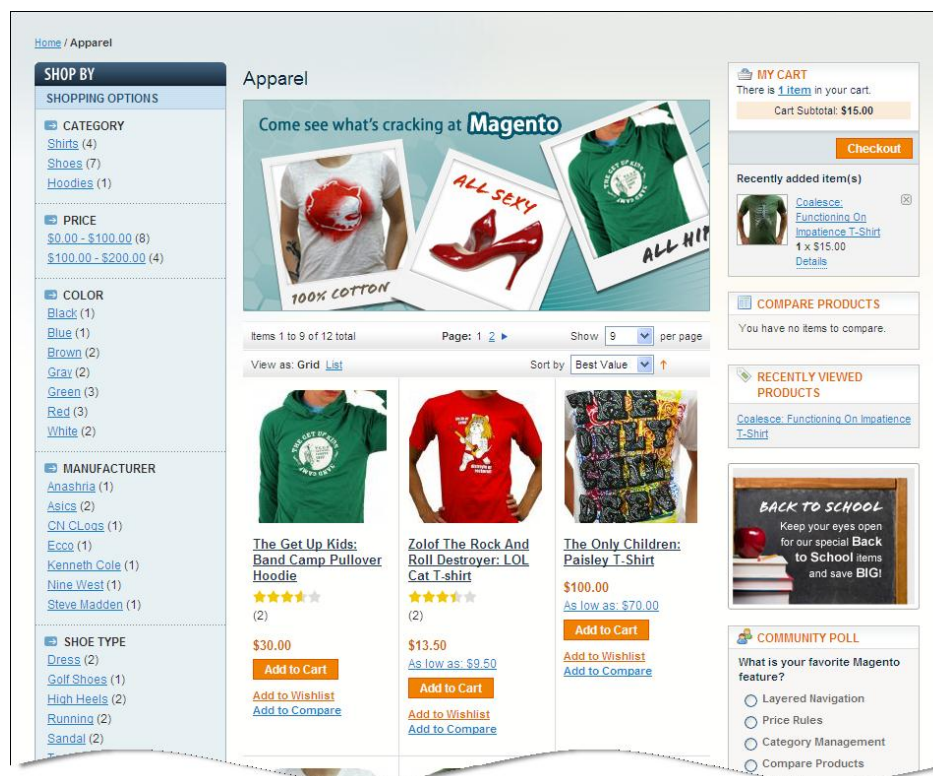
Figure 75.   Category Page with Layered Navigation

Attributes also determine which products are displayed when a customer performs a search for a keyword.

System attributes define the properties that are required by the store to function properly. These attributes cannot be deleted.

You can add as many additional attributes as desired. In the Magento backend you can define attributes in sets. Attribute sets ease the definition process so that similar products can be created with the same attributes. Attribute sets enable you to assign multiple attributes to a product at one time by assigning an entire attribute set to a product.

If a store sells televisions, shoes, books, and power tools, then four attribute sets could be defined: one specific to televisions, one for shoes, and so on. When a new power tool product is added to your catalog, you can simply select the "Power Tool" attribute set to add the relevant attributes to this product.

You should first define attributes, then define attribute sets and assign the relevant attributes to the attribute sets, as described in this section.

Creating Attributes

Attributes must be defined before defining attribute sets and products.

Note: *Only attribute sets can be assigned to a product, not individual attributes.*

To define attributes:

1. Select **Catalog** > **Attributes** > **Manage Attributes**. A list of existing attributes is displayed, as shown in Figure 76.

Figure 76.   Manage Attributes Page

2. Click **Add New Attribute** to display the New Product Attribute page (Figure 77) in which you can define a new attribute.

Figure 77.   New Product Attribute Page

3. In the **Attribute Code** field, specify a unique identifier for this attribute. Do not use spaces. This code does not appear on the frontend.

4. In the **Scope** field select the scope to which this attribute applies.

5. The **Catalog Input Type for Store Owner** setting controls how a store administrator specifies values for attributes. For descriptive textual attributes, you can use the **Text Field** or **Text Area** types; for list prices you use the **Price** type. Note that not all types can be used for layered navigation.

6. If this attribute has a default value, specify it in the **Default Value** field.

7. If the value of the attribute must be unique for each product (for example, a SKU number), select **Yes** for **Unique Value**.

8. If the value of the attribute cannot be blank for any product, select **Yes** for **Values Required**.

9. In the **Input Validation for Store Owner** field, select the type of validation that should be enforced on values of this attribute. For example, if the values of this attribute will be email addresses, select **Email** to cause the system to check each entered value of this attribute against the rules for valid email addresses.

10. If this attribute will apply only to certain Magento product types, select **Selected Product Types** for **Apply To**. In the list that appears, select one or more product types for this attribute (use Ctrl+click to select multiple items).

11. For **Use in Quick Search** and **Use in Advanced Search**, select **Yes** to enable the quick search and advanced search tools to search this attribute's values.

12. For **Comparable on Front-end**, select **Yes** to have this attribute appear in the Compare window when products are compared.

13. The **Use in Layered Navigation** field defines whether the attribute is used in layered navigation. The following options are available:

   ❖ **Filterable (with results)**: Only those attribute values that correspond to the existing products in your frontend catalog will be used in the layered navigation.

   ❖ **Filterable (no results)**: All values of the attribute that you have created on the **Manage Label/Options** tab will be listed.

   ❖ **No**: Not used in layered navigation.

   Note that only attributes with the **Dropdown**, **Multiple Select**, or **Price** input type can be used in layered navigation.

14. The **Use for Promo Rule Conditions**, field defines whether the attribute can be used in defining conditions for catalog and shopping cart price rules.

15. The **Position** parameter determines the position of the attribute in the layered navigation block with respect to other filterable attributes.

16. In the **Visible on Product View Pages on Frontend** field, select **Yes** to specify that this attribute appears in the **Additional Information** part of a product's page in the web store, as shown in Figure 78.

Additional Information	
Model	LX.FR206.001
Brand	Acer
In Depth	• Mobile AMD Athlon 64 2800+ • 1MB L2 Cache • 512MB of PC2700 DDR333 SDRAM • 2 RAM Slots (0 open - upgrading requires chip removal) • RAM is upgradeable to 2GB
Screensize	15-inch, 200-nit, high-brightness TFT LCD screen
Hardrive	80 gig Western Digital
Processor	Mobile AMD Athlon 64 2800+
Memory	512MB of PC2700 DDR333 SDRAM

Figure 78.   Attributes on the Additional Information Panel

17. For **Allow HTML Tags on Frontend**, select **Yes** to enable HTML tags that are specified in this attribute's values to be honored on the frontend.

18. For **Used in Product Listing**, select **Yes** to list values of this attribute in the product listing.

19. For **Used for Sorting in Product Listing**, select **Yes** to enable the product list to be sorted by values of this attribute.

20. Click **Manage Label/Options** at the top left of the page to display the Manage Label/Options page, as shown in Figure 79.
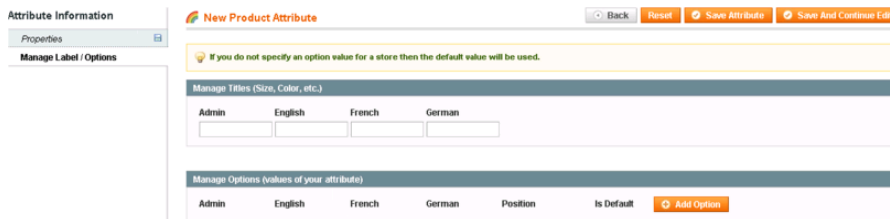
Figure 79.   Manage Label/Options Page

21. In the **Mange Titles** box, specify a display name for this attribute for each store view. If you specify a value only in the **Admin** field, that value will be used in all cases.

22. For attributes with an input type of **Dropdown** or **Multiple Select**, you can enter values that can be specified for the attribute. To add a value, click the **Add Options** button. You can specify a different label for the value for each store view and set the default value by selecting the **Is Default** option button. For the **Dropdown** input type, you can select the **Is Default** option button only for one attribute value. For the **Multiple Select** input type, you can select multiple values by selecting the **Is Default** check box next to the desired attribute values. See Figure 80.
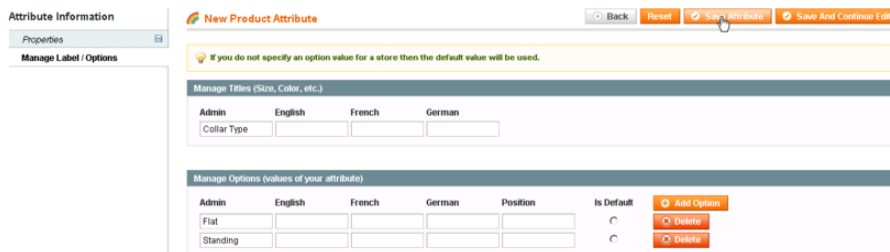
Figure 80.   Attribute Value Specifications

23. Click **Save Attribute**.

6.3   Creating Attribute Sets

An attribute set is a collection of attributes, customized to fit certain types of products. All attribute sets must contain all of Magento's system attributes, but you can customize them to include different combinations of simple attributes. Only attribute sets (not individual attributes) can be assigned to a product. If you want to add a small number of attributes, you can add them to the Default set, but if you want to add attributes that will be applied only to a subset of products, it is advisable to create an attribute set for each set of attributes that you want to assign to products. An attribute set can inherit attributes from another attribute set. This feature saves you from redefining sets of attributes that apply to many different products.

To create a new attribute set:

1. In the Admin Panel, select **Catalog > Attributes > Manage Attribute Sets**. A list of existing attribute sets is displayed, as shown in Figure 81.
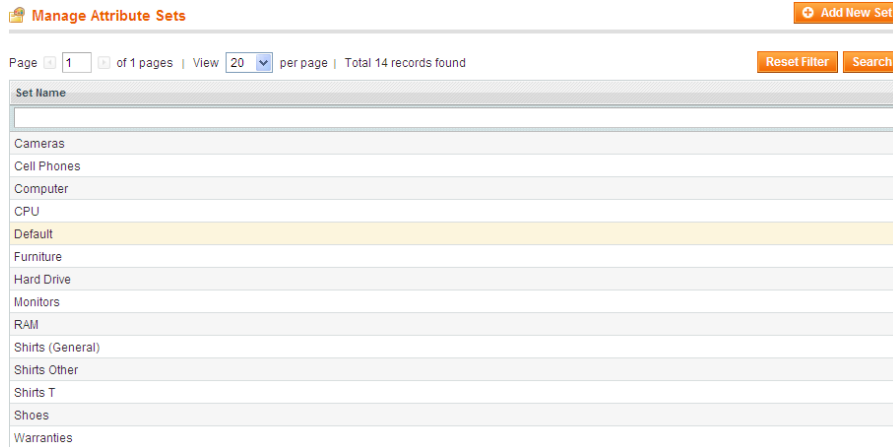
Figure 81. Manage Attribute Sets Page

> *Note: Figure 81 shows the attribute sets that are provided in Magento's Sample Data.*
>
> *Note: The Default attribute set is composed mostly of system attributes. This attribute set is typically inherited by all other attribute sets.*

2. Click the **Add New Set** button to display the Add New Attribute Set page (Figure 82).
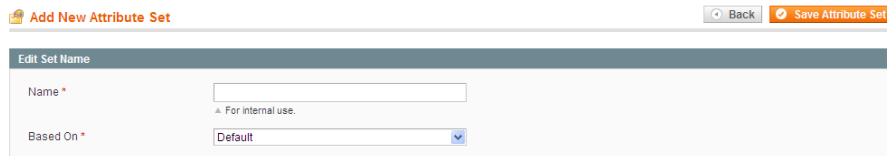
Figure 82. Add New Attribute Set Page

3. In the **Name** field, specify the name of this attribute set. This name is used only in the backend.

4. In the **Based On** field, select another attribute set from which this attribute set is to inherit. This enables you to reuse the attributes that are already defined in a set to build other attribute sets. The simple option is to leave the **Default** option that appears in this field.

   Click **Save Attribute Set** to display the Edit Attribute Set page (Figure 83).
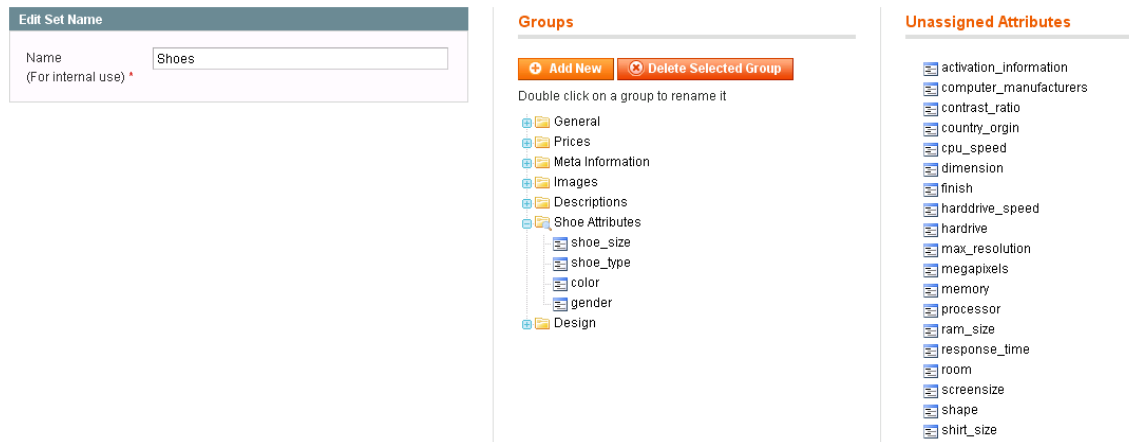
Figure 83. Edit Attribute Set

Note: *System attributes are indicated by an icon with an orange dot.*

The top left of the page shows the name of the attribute set that you are defining.

The center of the page shows a hierarchical tree representing groups of attributes. An attribute group is a logical grouping of attributes within an attribute set. See "Creating a New Attribute Group" below for a description of how to define attribute groups.

The right side of the page shows a list of attributes defined in other attribute sets and not assigned to this attribute set.

5. Assign attributes to this attribute set by dragging them from the **Unassigned Attributes** area on the right into a group in the tree in the **Groups** area.

Creating a New Attribute Group

The center of the Edit Attribute Set page shows a hierarchical tree representing groups of attributes.

Attribute groups can be thought of as folders that contain attributes. Each group corresponds to a different tab on the product page in the backend. Magento comes with seven attribute groups by default: General, Prices, Meta Information, Images, Recurring Profiles, Design, and Gift Options. They contain the various system attributes. System attributes cannot be removed from an attribute set; however, they can be moved to other attribute groups. Therefore, you can remove an attribute group as long as there are no system attributes within it. The order of both the attribute groups and the attributes can be changed by selecting and dragging them. This affects the order of tabs and attributes on the product page in the backend, respectively. You can also create a new attribute group, to which you can move system attributes, or associate simple attributes. See Figure 84.
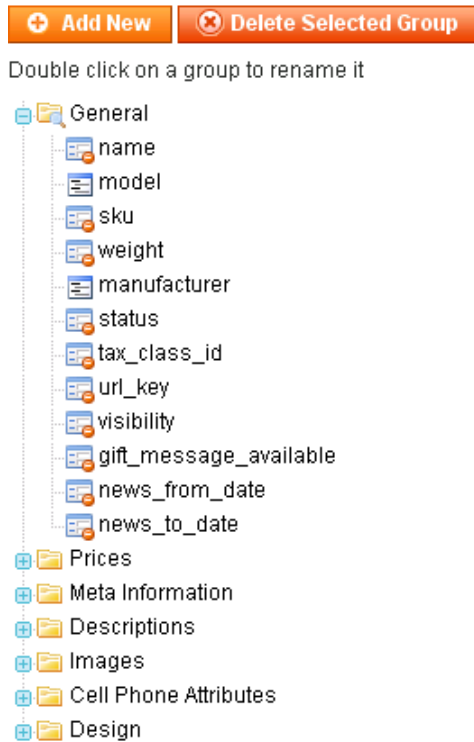
Figure 84.   Attribute Groups

To create a new attribute group:

1. Click **Add New** in the **Groups** area to display a pop-up window asking for the group name.

2. Specify the name of the new group and click **OK**.

3. Click and drag attributes from the **Unassigned Attributes** area into the newly created group to assign them to this group.

4. You can also click and drag attributes that are already assigned to move them between groups.

7 Managing Products

This section describes how to define and edit products.

> **Tip:** *You should first define attributes and an attribute set, as described in "Managing Product Attributes," page 72, before you define products that have those attributes.*

7.1 Product Types

Magento offers a variety of product types that enable significant flexibility when defining products. The following lists the available product types and their typical usage:

- ❖ **Simple Product:** This is the most basic product type. It is suitable for all kinds of physical (shipped) products.

- ❖ **Grouped:** This option enables you to display several similar products on a single page. For example, if you are selling chefs' knives and you have the same knife in four sizes, you can make a grouped product to display all four of these sizes. Customers can select the size(s) that they want and the quantity they need, and add them to the cart from this page.

- ❖ **Configurable:** This product type enables your customers to select the variant that they want by choosing options. For example, you can sell T-shirts in two colors and three sizes. You would have to create six variants as individual products (each with its own SKU) and then add these six to a configurable product where customers can choose the size and color, and then add it to their cart. A very similar functionality is possible by using Custom Options for Simple products. The difference between a configurable product and a product including custom options is that inventory is not checked or updated for individual options during the purchase of the latter and there is no possibility to go directly to a product with a given set of options. This also makes it hard for a search engine to find the product option.

- ❖ **Virtual Product:** This is a product that does not require shipping or inventory. It is generally used for warranties or services.

- ❖ **Downloadable Product:** This is a digitally downloadable product that sells one or more files of a product and provides samples of those files. These downloadable files can reside on your server or be provided as URLs to any other server.

- ❖ **Bundle:** This product is composed of components that are presented in different ways and are made from existing products. A good example of a bundle is a complete computer. For this computer, you can configure how much RAM or what kind of monitor is included with this computer in your store.

- ❖ **Gift Card:** This product is a physical or virtual gift card that can be used in your store. For more information, see "Gift Cards," page 384.

7.2 Creating a New Product

The following steps are the same for all product types. Subsequent sections describe the differences between each of the product types.

To create a new product:

1. In the Admin Panel, select **Catalog > Manage Products** to display the Manage Products page, as shown in Figure 85.

Figure 85.   Manage Products Page

> *Note: Figure 85 shows the products defined in the Sample Data provided with Magento. If you downloaded Sample Data, then you may want to leave the products in for you to refer to as examples and delete them later.*

2. Click **Add Product** on the top right of the page to display the New Product page (Figure 86).

Figure 86.   New Product Page

Product Wizard, First Page

The New Product page is the first page of a product definition wizard that walks you through the process of defining a product.

1. In the **Attribute Set** field, select the attribute set that contains the attributes that best describe this product. See "Managing Product Attributes," page 72, for a description of how to define attributes.

2. In the **Product Type** field, choose the type of product you want to create.

3. Click **Continue** to display the **General** tab, as shown in Figure 87. (This tab may look different depending on the product type that you choose.).

Figure 87.   General Tab

General Tab

Fill in all the mandatory fields, which are indicated by a red asterisk (*).

❖ **Name:** The product name as it appears in the frontend.

❖ **SKU:** The product's store keeping unit (SKU). Magento uses SKU as a unique identifier for this product. SKU is global, meaning if you update the SKU for a product in one web store, it is updated in all other web stores as well.

❖ **Weight:** The product's weight. This value is usually used for shipping calculations. Specify only the number. Shipping service providers will interpret it according to the measurement units they use.

❖ **Status:** Select **Enabled** to make this product available on the frontend.

❖ **Tax Class:** The tax class of the product. See "Product Tax Class," page 160, for more information.

❖ **Visibility:** Determines whether the product is displayed in the catalog pages and/or search results. The following options are available:

   o **Not Visible Individually:** The product will not be displayed individually in the frontend; however, it can be a component of a composite, configurable, bundle, or grouped product.

   o **Catalog:** The product will displayed on pages of categories it is associated with, but it will not appear in search results.

   o **Search:** The product will be displayed when your customers search for it either using the quick or Advanced Search tools, but will not be displayed on the related category page.

   o **Catalog, Search:** The product will be available on category view pages with which it is associated and on the search results page.

The following describes the other fields in this page:

❖ **URL key:** The search engine-friendly URL identifier is the name used for this product in the product's URL. You cannot use spaces in this field. If the URL key is left blank, one is automatically generated by Magento.

❖ **Manufacturer:** Select the name of the manufacturer from the drop-down menu.

❖ **Color:** Select the color of the product, if applicable.

❖ **Set Product as New from/to Date**: The date range in which this product can be promoted as a new product in various locations throughout your site.

❖ **Country of Manufacture:** Select the country in which the product was manufactured.

❖ **In feed:** Determines whether this product is included in your store's product RSS feed.

Note: Additional fields may appear on this (and other pages) if you add attributes to the Default attribute set or base the product on another attribute set.

*Note: The **Create New Attribute** button opens a pop-up window that enables you to specify an attribute to be added to the selected attribute set. However, we recommend defining the attribute structure first.*

Prices Tab

Click the **Prices** tab in the **Product Information** panel on the left to display the **Prices** tab, as shown in Figure 88.

Figure 88.   Prices Tab

Fill in all the mandatory fields, which are indicated by a red asterisk (*).

This tab enables you to specify the **Price**, **Cost** and **Special Price** information for this product. You can also add Tier Pricing, as described in "Tier Pricing," page 291.

❖ The **Special Price** field is used for discounting or promotions, as described in "Special Prices," page 287.

❖ The **Cost** field is only used in the backend. It can be used for generating margin and profit reports.

❖ The **Apply Map**, **Display Actual Price**, and **Manufacturer's Suggested Retail Price** fields are used for implementing the Minimum Advertised Price feature for this product. For more information, see "Minimum Advertised Price," page 293.

Meta Information Tab

Click **Meta Info** on the left to display the **Meta Information** tab, as shown in Figure 89.
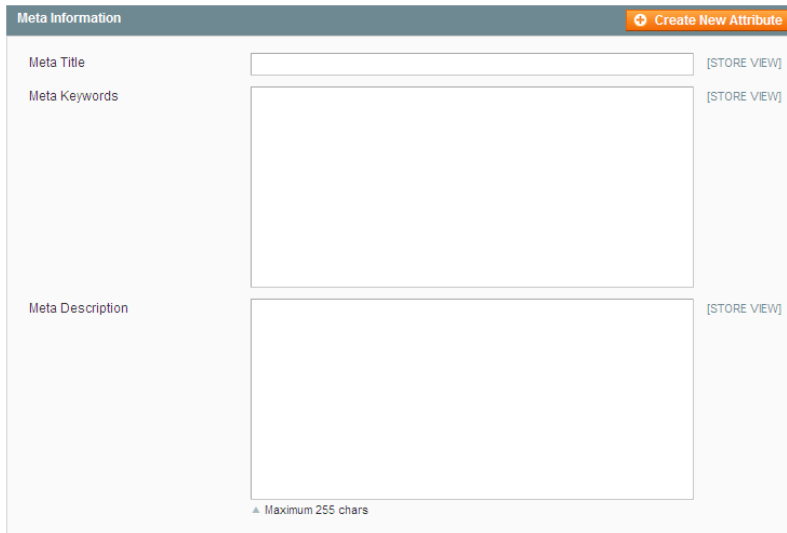
Figure 89.   Meta Information Tab

Specify information that enables search engines to more easily find and index this product.

Images Tab

Customers generally like to see what they are buying before they make a purchase. The **Images** tab enables you to upload pictures of your product.

1. Click the **Images** tab on the left to display the **Images** tab, as shown in Figure 90.
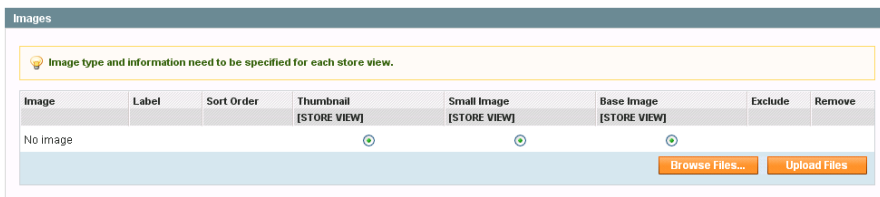
Figure 90.   Images Tab

2. Specify the image to be displayed in the web store to represent this product. Use the **Browse** button to select the image file from your local file system.

Tip: *You can select more than one file in this window to upload multiple images at once.*

3. After you have specified the image files of this product, click the **Upload Files** button. The **Images** tab shows uploaded the image files, as shown in Figure 91.
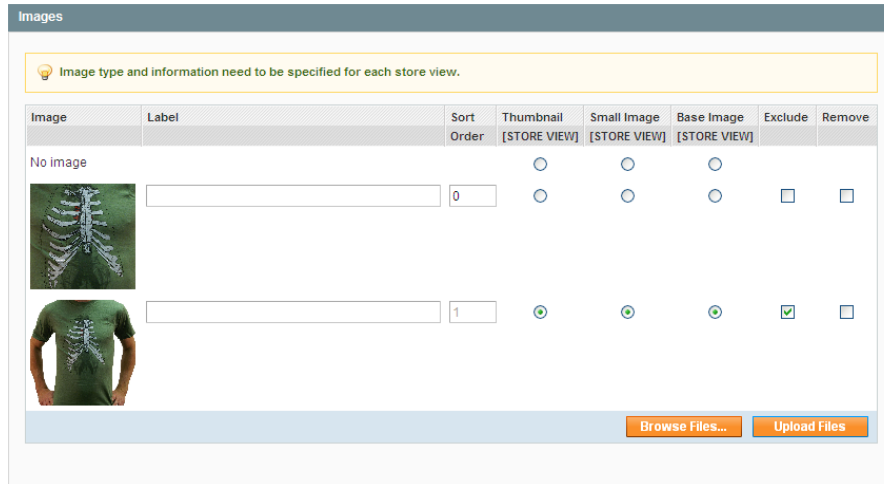
Figure 91.   Images Tab with Images Uploaded

4. Select the appropriate options for each of the images, as follows:

❖ **Label:** Alternate text for the image tag

❖ **Sort Order:** The order in which the images are displayed in the Slideshow and MORE VIEWS gallery

❖ **Thumbnail**: Used in shopping cart and related items

❖ **Small Image**: Used in the Category listing, Wishlist, and so on

❖ **Base Image:** Large product image (zoomed in)

❖ **Exclude**: Excludes the image from the Slideshow and MORE VIEWS gallery

❖ **Remove:** Deletes the image from the collection; if the **Remove** check box is selected, the image will be removed after you save the product

Description Tab

Click **Description** on the left to open the **Description** tab, which enables you to create descriptions for the product (see Figure 92).

Figure 92. **Description Tab**

Both of the fields on this tab are mandatory. For both fields, you can use the WYSIWIG editor to format your descriptions.

❖ **Description:** The information that you specify in the **Description** field is shown in the product's page under the title **Product Description**.

❖ **Short Description:** The information that you enter in the **Short Description** field appears on the product's page under the title **Quick Overview**. This information is also shown when products are displayed in a list.

Design Tab

The **Design** tab contains additional settings to control the appearance of this product's product page, as shown in Figure 93.

Figure 93. Design Tab

All of these settings are optional. For more information about custom designs and page layouts, see "Design and Content," page 141.

1. Select a custom design from the **Custom Design** drop-down menu. Magento comes with several custom designs already defined, and you can modify these custom designs or create your own.

2. For the **Active From** and **Active To** fields, select the start and end dates for this custom design to be applied to this product. If you do not select a start date, the custom design is applied immediately. If you do not select an end date, the custom design is applied to this product until you manually deactivate it.

3. The **Custom Layout Update** is essentially a static block, with a few differences. Rather than HTML, the structure must be in XML format. The Update will appear at the bottom of the page, below the products, whereas a static block will appear above the products (if the static block is set to display with products). The Custom Layout Update will appear on the page only during the dates specified in the Active date range.

4. For **Page Layout**, select a layout from the drop-down menu.
    ❖ **No layout updates**: Uses the default settings that come with the Magento installation
    ❖ **Empty**: Displays the category page without any objects, except for the content (products or static blocks only), category name, and view options (number to display per page, view as grid or list, and sort-by options)
    ❖ **1 column**: Displays the contents, category name and view options, as well as the header, footer, search field, and navigation bar
    ❖ **Column on the left:** Adds the left column to the 1 column display, which by default includes the currency selection and layered navigation
    ❖ **Column on the right:** Adds the right column to the 1 column display, which by default includes the shopping cart view, Wishlist, compared products list, polls, and newsletter signup
    ❖ **3 columns:** Displays both the left and the right columns

5. For **Display Product Options In**, select a location for the product options to appear in the layout.

Recurring Profile Tab

By default, the **Recurring Profile** tab only appears for simple and virtual products. However you can configure it to become available for other product types, by changing the **Apply To** option of the Enable Recurring Profile attribute. A recurring profile enables you to set and configure recurring payments on a product. These are most often used for subscriptions or products with installment payment plans. When a product like this is purchased from your store, the customer is redirected to a third-party payment system where a "recurring payment agreement" with the store is authorized by the customer. Currently, creating recurring profiles is available only for the PayPal Express Checkout payment method.

To enable a recurring profile for this product, select **Yes** for **Enable Recurring Profile**. Additional options become visible, as shown in Figure 94.

Figure 94.   Recurring Profile Tab

Most of the options on this tab are self-explanatory. For additional details on how recurring profiles work, see the http://www.magentocommerce.com/knowledge-base/entry/working-with-recurring-profiles/ article in the Magento Knowledge Base.

Note: Creating a recurring profile for a product does not create subsequent orders in the Magento Admin Panel.

Gift Options Tab

The **Gift Options** tab contains one option. The **Allow Gift Message** option determines whether customers are able to add a gift message to this particular product during checkout.

The default value of this setting is controlled by a Sales configuration setting (**System > Configuration > Sales >Gift Options**). To change this option, clear the **Use Config Settings** check box.

Inventory Tab

The **Inventory** tab enables you to control various aspects of inventory management for this product.

Many of the settings on this tab are controlled by the Inventory configuration settings (**System > Configuration > Inventory**). To override these configuration settings for this product, clear the appropriate **Use Config Settings** check box.

1. Select the **Inventory** option in the left panel to display the **Inventory** tab, as shown in Figure 95.

Figure 95.   Inventory Tab

2. In the **Manage Stock** field, select **Yes** to specify that all inventory options are available for this single product, or select **No** to specify that you do not want to manage product inventory (in this case, the product is permanently available in the store to your customers).

3. In the **Qty** field, specify how many items of this product you have in stock.

4. In the **Qty for Item's Status to become Out of Stock** field specifies that if stock quantity falls below this level, then the product becomes **Out of Stock**.

5. The **Minimum /Maximum Qty Allowed in Shopping Cart** fields enable you to limit availability to products that have great prices to retail customers, so that they are not sold to wholesale customers.

6. In the **Qty Uses Decimals** field, select **Yes** to specify that customers can enter decimal quantities for this product, as opposed to integers. This is suitable for a product sold by the weight, volume or length. For example: 2.35 pounds of concrete or 3.75 feet of carpeting.

7. The **Backorders** field enables your customers to place an order for a product that has an in-stock quantity of less than **0**. This option also enables you to notify your customers that even though there are no items of a product currently available, they can still place an order. You can do this by selecting the **Allow Qty Below 0** option and the **Notify Customer** option. You can also enable this option without notifying customers by only selecting the **Allow Qty below 0** option.

8. The **Enable Qty Increments** field enables you to choose whether this product is sold in quantities other than 1 (for example wine that is sold in multiples of 6 bottles). If you select **Yes** for this option, the **Qty Increments** field becomes visible, enabling you to specify the quantity increment for this product.

9. In the **Stock Availability** field, select the **In Stock** option if this product is in stock, or select **Out of Stock** otherwise.

Websites Tab

The **Websites** tab enables you to choose which websites, stores, and store views this product is available on. Use the check boxes to make your selections. To set up websites, stores, and store views, see "Setting Up Your Store Hierarchy," page 139.

1. Select the **Websites** option in the left panel to display the **Websites** tab, as shown in Figure 96.
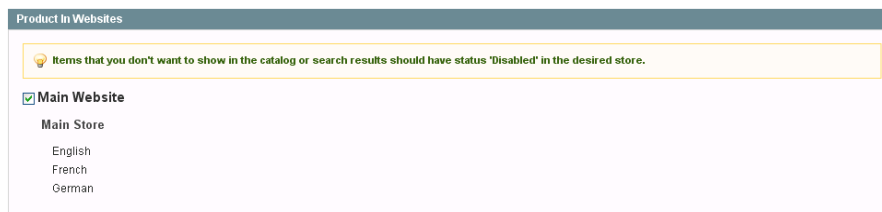
Figure 96.   Websites Tab

2. If your store has more than one website, store or store view, you must assign the product to the appropriate website in order to make it available in this website.

> *Note: Sample Data contains three store views. If you want to create a product in the Sample Data environment, you must select the **Main Website** option when creating a product.*

Categories Tab

The **Categories** tab enables you to assign this product to one or more categories.

1. Select the **Categories** option in the left panel to display the **Categories** tab, as shown in Figure 97.

Figure 97.   Categories Tab

2. Specify the categories to which this product belongs by selecting the appropriate check boxes.

   Note: *You can assign a product to more than one category.*

   Note: *You can also assign products to a category while editing the category.*

Related Products, Cross-sell, and Up-sell Tabs

Each of these pages is similar and enables you to configure relationships between products. The interface in Figure 98 appears in each of these pages:
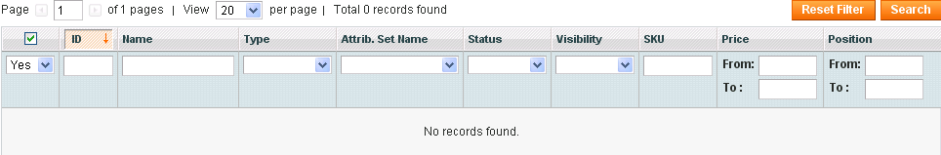
Figure 98.   Product Relationship Interface

❖ To display all the products in the list, click the **Reset Filter** button.

❖ Select the relevant check boxes to assign products. You can use any of the filters available to make it easier to search for the products that you want.

For more information about these pages, see "Up-selling, Related Products, and Cross-selling," page 269.

Product Alerts Tab

This page is only available when alerts are enabled (**System > Configuration** > **Catalog**). See Figure 99.

Figure 99.   Product Alerts Tab

This page displays a list of the customers who have subscribed to each type of alert for this product, and the dates on which they were notified about changes.

Product Reviews Tab

This tab provides a list of reviews posted by customers about a product that is being edited (the tab is not available for new product records for which there are no reviews). You can use the **Edit** button that appears in each review row to approve, edit or remove the review. See Figure 100.

Note: *The **Pending Reviews RSS** link enables you to receive notifications of all pending reviews and enables you to first approve them before they are shown on the site.*

Figure 100. Product Reviews Tab

Product Tags Tab

This tab displays the tags that customers have assigned to a product, and how many times each tag was used. This tab is not available in new product records for which no tags have been assigned. See Figure 101.

Figure 101. Product Tags Tab

> **Note:** *You can click on a tag row to edit it or approve, reject, disable, or delete it.*

Customers Tagged Product Tab

This page enables you to see which customers have tagged specific products. See Figure 102.

Figure 102. Customers Tagged Product Tab

> **Note:** *You can click on a tag row to edit it or approve, reject, disable, or delete it.*

Custom Group Configuration Pages

Additional configuration pages may appear depending upon the groups that you have created using the Attribute Sets tool. See "Creating Attribute Sets," page 76 for more information about attribute sets. An example custom group T-Shirts attribute is shown in Figure 103.

Figure 103. Custom Attribute

Fill in the attributes that appear in this page according to the definitions that are specified in the attribute set. Some of these attributes may be mandatory and each may be one of a variety of types according to the definitions of the attribute set.

Custom Options Tab

This page enables you to easily create product variants or products that can accept customer input, such as custom imprints or gifts. See "Creating Variations of a Product," page 105, for more information on this topic.

Product Type Dependent Configuration Pages

Depending upon the product type, additional configuration tabs may be available. The following provides a quick review of these types of pages.

Downloadable Products: Downloadable Information Tab

The **Downloadable Information** tab enables you to specify options for a downloadable product. See Figure 104.

Figure 104. Downloadable Information Tab

This page contains two sections:

❖ The **Samples** section enables you to display a sample of the downloadable product on the product's information page. For example, this can be a short sample of a music file, a few pages of an eBook, or a trial version of a software application. You can provide as many samples as you require by clicking the **Add New Row** button and filling out the fields. You can add files using either of two methods:

    o Select the **File** option, click the Browse button (**...**) and then click the **Upload Files** button. This will upload the file from your local computer to the server.

     o   Select the **URL** option, specify the link to a file that is already on a server in a different location, and click the **Upload Files** button.

Samples that you put in the Samples section appear in the store as shown in Figure 105.
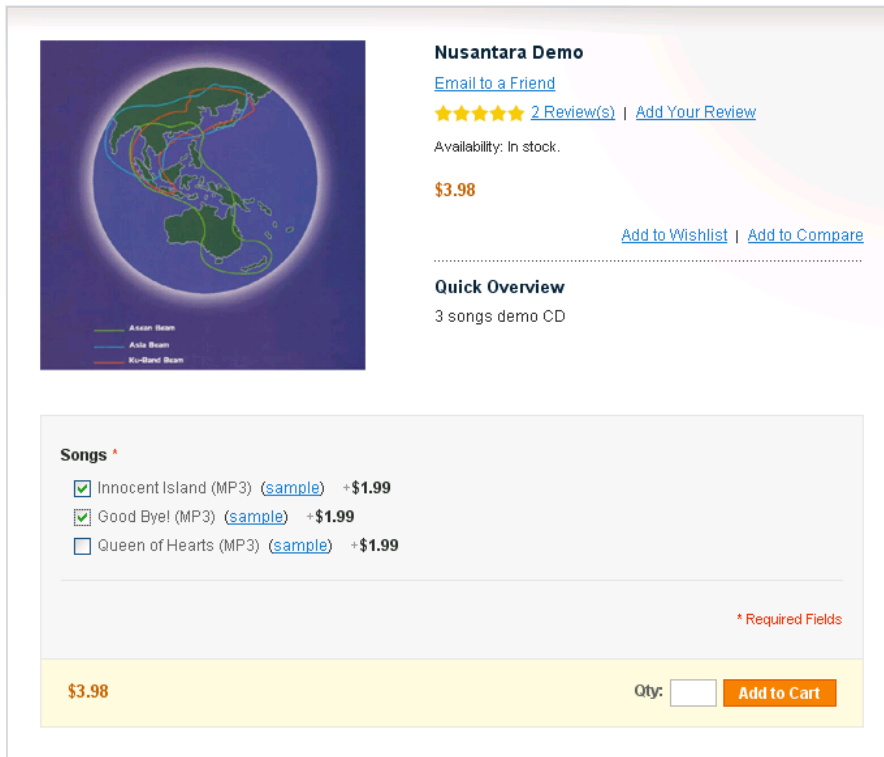
Figure 105. Downloadable Product Sample

❖ The **Links** section contains the actual products that can be purchased, along with possible samples for them.

     o   The **Links can be purchased separately** option controls whether each of the downloadable products can be purchased by itself or not. This feature enables, for example, the tracks of a music CD product to be purchased separately. If you set this option to **Yes**, then you must specify the price for each of the downloadable items.

     o   Each of the items also has two options that control its behavior. The **Max. Downloads** option controls how many times after purchase a product can be downloaded by the customer. The **Shareable** option controls whether after each purchase of the product, the downloadable item is available for download without logging in, or if it requires logging in. If the **Shareable** option is set to **Yes**, then customers can click links in the Order Confirmation email that they receive in order to get the product. However, this setting also enables anyone who gets this link to download the product. Setting this option to **Yes** is the only way to enable Guest customers to check out (or to enable a comparable quick checkout method, such as PayPal Express or Google Checkout) to download the product. There are configuration settings that must be selected to match your store.

The uploading process is similar to the uploading of the samples, as described above, with the exception of providing an option to tie in sample files for each downloadable product. This feature can be used to provide customers with a short sample of each track of a music CD, for example.

Figure 106 shows a product in a store with three links and samples for each of them, for which the setting **Links can be purchased separately** was set to **Yes**.

Figure 106. Downloadable Product Links and Samples

Bundle Product: Bundle Items Tab

An example of a bundled product is the Build Your Own Computer offering found in the demo store, as shown in Figure 107.

Figure 107. Bundle Product

In Bundled product types, there are differences in the **General** and **Prices** pages, as follows:

❖ **SKU Fixed or Dynamic** (**General** tab): Specifies whether the entire product is assigned an SKU based on its components, or the SKU is fixed for the bundle.

❖ **Weight Fixed or Dynamic** (**General** tab)**:** Specifies whether the entire product's weight is based on the weight of its individual components, or the weight is fixed for the entire bundle.

❖ **Price Fixed or Dynamic** (**Price** tab): Specifies whether the price of the product us based on the price of its individual component, or the price is fixed for the entire bundle.

❖ **Price View** (**Price** tab): Specifies whether the product's price is shown as a range, from the least expensive component to the most expensive (**Price Range**), or only the least expensive price is shown (**As Low As**).

The **Bundle Items** tab contains the following settings:

❖ **Ship Bundle Items**: Specifies whether individual components are shipped separately, or the entire product is shipped.

❖ **Bundle Items:** Bundled Items appear in the store as a list of available options. You can add a new option using the **Add New Option** button. For each option you can configure its title, input type (single and multiple selection fields are available), whether the field is mandatory (for example: it can be **True** for a computer processor and **False** for an additional battery of a laptop computer), and its position on the page. See Figure 108.

Figure 108. Bundle Items Tab

After you add options, you can specify individual values for each option. Click the **Add Selection** button to open a selection area, as shown in Figure 109.
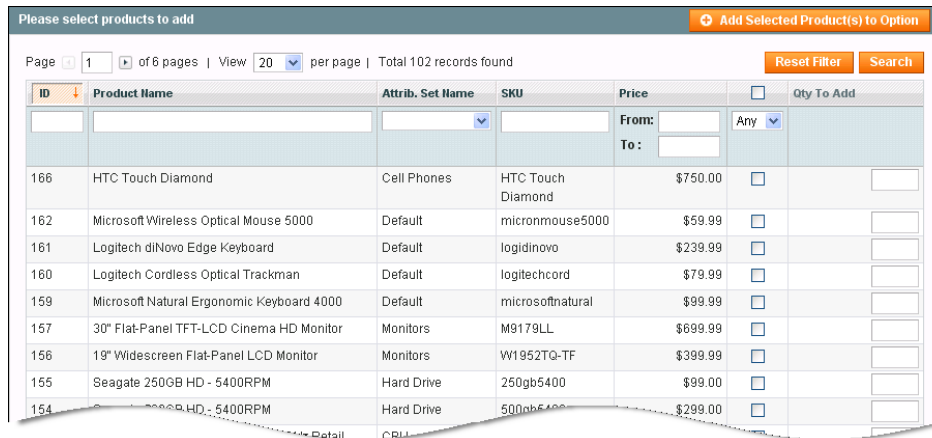
Figure 109. Adding Products to a Bundle

You can select any product that you want using the check boxes. Click the **Add Selected Product(s) to Option** button to confirm the assignment. For each selection, you can then define the following options:

❖ **Default Qty:** Specifies the default quantity shown in the product view page

❖ **User Defined Qty:** When set to **Yes**, this option enables customers to enter a quantity for a given selection

❖ **Position:** Specifies the order in which the selection appears

❖ **Default:** Specifies the predefined value

Grouped Product: Associated Products Tab

A grouped product enables you to purchase each of the items separately.

In the store, a grouped product appears as shown in Figure 110.
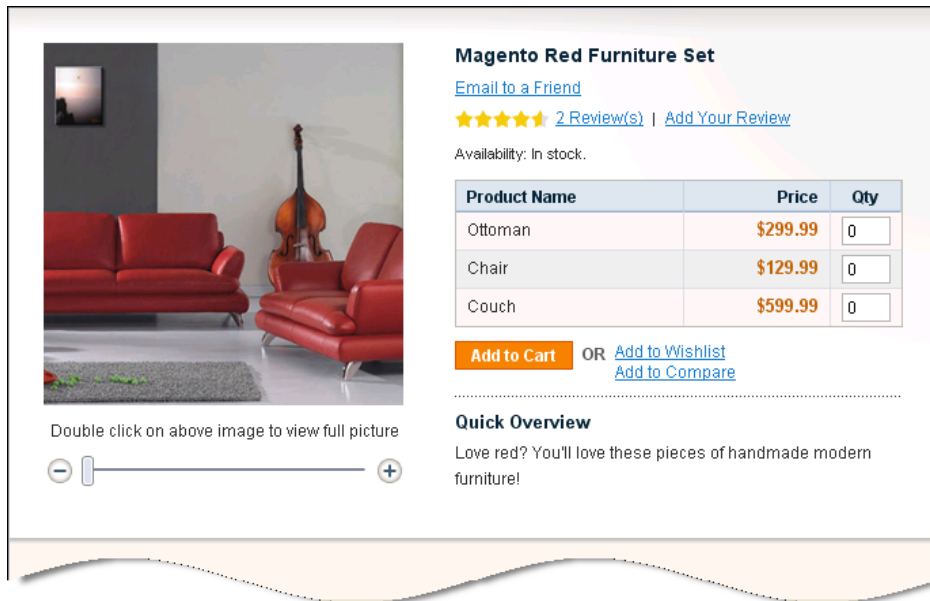
Figure 110. Grouped Product

When creating a Grouped Product, the Associated Products page enables you to specify which products are included in a group, as well as the default quantity for each and their position (order) on the page. See Figure 111.

Figure 111. Associated Products in a Grouped Product

Note: There is no global price for grouped products. Their price is controlled only by the individual elements that you purchase.

Configurable Product: Associated Products Tab

Configurable products must be associated with simple products using attributes that a customer can select from a configurable product page. This means that when a shirt is offered in three sizes, then three simple products must be assigned to the configurable product, one for each size.

The configurable product appears in the store with a section that provides customers with options, such as the **Size** option shown in Figure 112.
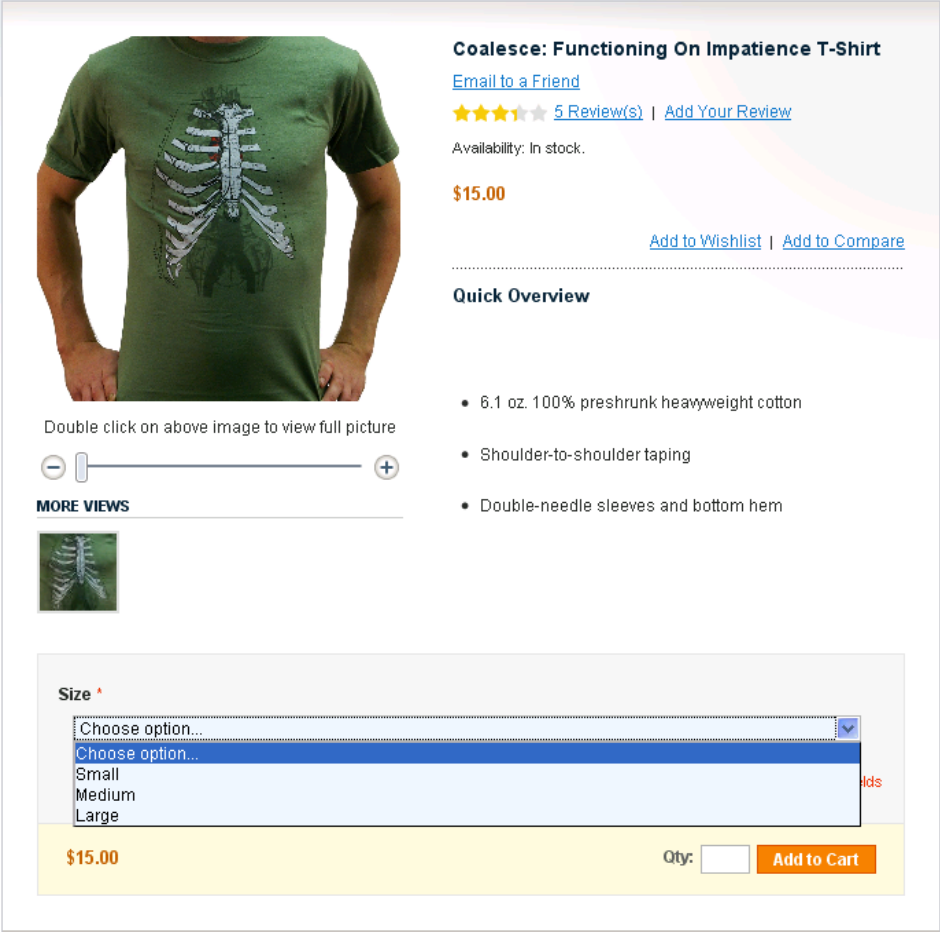
Figure 112. Configurable Product

This is the most complex configuration page and it is described below it in three stages.

Select Configurable Attributes

This section enables you to select the product attributes that can be configured. The only attributes that are available on this tab are those that have a scope of **Global**, an input type of **Dropdown**, and the **Use to create configurable product** option set to **Yes**. See Figure 113.
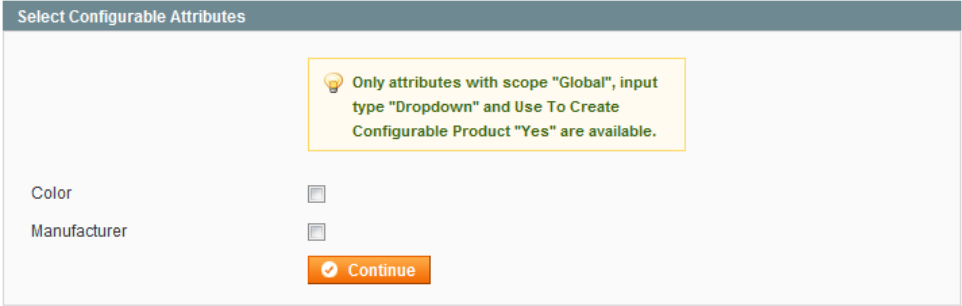
Figure 113. Select Configurable Attributes

Use the check boxes to select one or more desired attributes, and then click **Continue**.

Create Simple Associated Product

This section enables you to create simple products along with the configurable product. See Figure 114.

Figure 114. Create Simple Associated Product

Click the **Create Empty** button to open a pop-up window with a regular product creation page, but which has a preselected product type, **Simple Product**, and an attribute set that is the same as the configurable product.

The **Copy from Configurable** button works in a very similar manner to the above, but it pre-fills many of the fields with information from the selected configurable product, as shown in Figure 115.
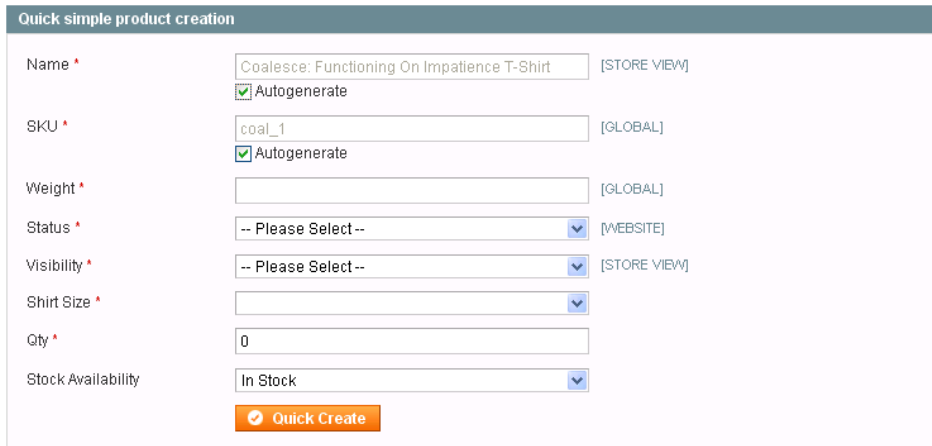
Figure 115. Quick Simple Product Creation

This area enables you to quickly create simple products without filling in all the information. Fill in the required fields and click the **Quick Create** button to create this product. The **Auto generate** option enables Magento to select the **Name** and **SKU** based on the attributes.

Super Product Attributes Configuration

This section enables you to specify the attribute name that appears in the store for selection and the price for each of the options. Two price options are provided: **Fixed** or **Percentage**. See Figure 116.
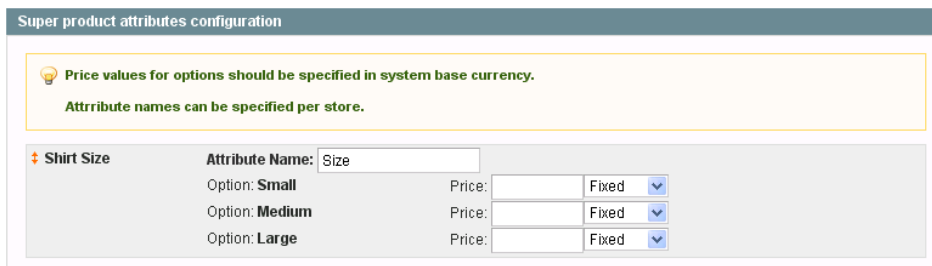
Figure 116. Super Product Attributes Configuration

The price for configurable products is a combination of the price from the **Prices** tab, as described in "Prices Tab," page 83, and the values entered in this area. This means that if the configurable product's price is $20 and the price for the Medium option is: **Percentage** and **10**, then this variation of the product costs $22. The price of the associated products is not used for calculation. See Figure 117.

Figure 117. Selecting Associated Products

Completing the Product Wizard

Click the **Save** or **Save and Continue Editing** button in the top right corner of the page. If you choose the latter, after saving the product you are redirected back to its page.

To edit an existing product:

1. From the **Catalog** menu, select the **Manage Products** option to display a list of products, as shown in Figure 118.

Figure 118. Product List

2. Click the **Edit** link on the right side of the row of the relevant product.

7.3   Mass-Changing Products

Magento provides various features that enable changes to be made on multiple products or their properties. On the product list, mark products using the selection check boxes. Then select one of the actions from the **Actions** drop-down menu and click the **Submit** button:

❖ **Delete:** Deletes the selected products from the store.

❖ **Change Status:** Disables or enables multiple products at once.

❖ **Update Attributes:** Updates the attributes of multiple products. When you click the **Submit** button, a new page opens containing a list of all attributes for all selected products. Select the **Change** check box for any attribute that you want to change, then specify the new attribute values. Click **Save** to confirm the changes.

*Note: You can use the **Duplicate Product** feature to create separate products without having to enter every value each time. To use it, click the **Duplicate** button on the product page of an existing product.*

8   Creating Variations of a Product

This chapter describes how to create variations of a product by adding input controls (input options) to a product's page. An example of the variation of a product is the same product with different colors or sizes. In this case you must add a customized field to enable the customer to select the required color or size.

> **Tip:** *If you want to track the quantity that is sold of each variant of the product, you must create a separate product for each variant of the product and group them in the product of type Configurable, and not use the variations options described here.*

To create variations of a product:

1. From the **Catalog** menu, select the **Manage Products** option to display a list of products.

2. Click the **Add Product** button to create a new product or click the **Edit** link to the right of the relevant product to open the edit page.

3. Select the **Custom Options** tab.

4. Click the **Add New Options** button on the top right of this page to display the controls shown in Figure 119.

Figure 119. Creating Custom Options

5. In the **Title** field, specify a name for this new property, such as the name **Size**.

6. In the **Input Type** field, select the type of input that can be given in this field, such as text or drop-down menu, as shown above.

7. In the **Is Required** field, select **Yes** to indicate that this is a mandatory field, meaning that a customer must select an option in this field in order to purchase this specific product.

8. If there is more than one option, then specify the order in which this option appears in the **Sort Order** field. A value of **1** indicates that it appears first.

9. Click the **Add New Row** button to display the row shown in Figure 120, in which you can define the new variation of this product. For example, the product in a certain size and its corresponding price.

Figure 120. Creating a Product Variation

10. In the **Title** field, specify the name of this variation of the product, such as **Size XL**.

11. All the prices in these rows are relative to the price of this product as defined in the **Prices** page of the product wizard described on page 83. In the **Price Type** field, select one of the following options:

> ❖ **Fixed:** To specify that the price of this variation of the product differs from the price of the base product by a fixed monetary amount, such as **$1**.

> ❖ **Percentage:** To specify that the price of this variation of the product differs from the price of the base product by a percentage, such as **10%**.

12. In the **Price** field, specify the difference between the price of this variation of the product and the price of the base product. Specify a fixed amount or a percentage according to the value that you entered in the **Price Type** field. You can also enter negative values.

13. In the **SKU** field, specify the SKU for this variation of the product.

14. If there is more than one variation, then specify the order in which this option appears in the **Sort Order** field. A value of **1** indicates that it appears first.

15. Click the **Save** button. This example product is shown in the web store, as shown in Figure 121.

Figure 121. Product Variation in the Frontend

In this example, you can see that the price is **$13.50**. However, if the **Green color** is selected, then the price is **$18.75**, as shown in Figure 122.
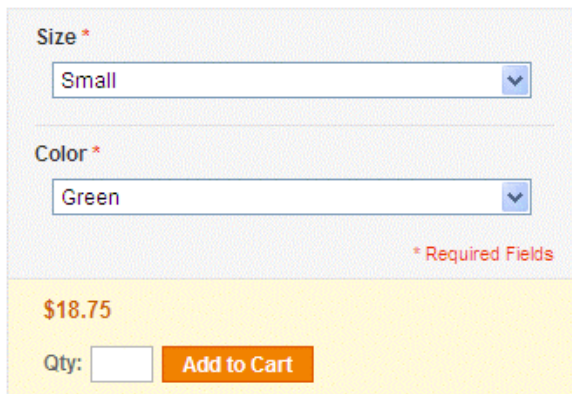
Figure 122. Price Change for Product Variation

Note: *If this product is added to the customer's shopping cart, then the variation information appears there, as shown below:*

Remove		Product Name	Unit Price	Qty	Subtotal
🗑		Zolof The Rock And Roll Destroyer: LOL Cat T-shirt **Size** Small **Color** Green	$18.75	1	$18.75
Continue Shopping					Update Shopping Cart

9   Composite Products Handling

This chapter describes the handling of composite products for store customers and administrators in Magento Enterprise Edition. In this guide the term "composite product" refers to products, of any product type, that should be configured before being added to the Shopping Cart. It includes built-in product types: configurable, bundle, grouped products, downloadable products, gift card, any product type with custom options, and any other product type that has some options to configure and was created by a third-party developer working in the Magento environment. The term "configuring a composite product" refers to making the configuration, setting custom options, and specifying the quantities of associated simple products.

A composite product can be added to the Wishlist without configuration, though it must be configured before being added to the Shopping Cart. The configuration is stored in the system, if the product was once configured, and can be changed at any step before the order is submitted.

Customers can change the configuration of the products in multiple locations in the store (product page, Wishlist, and Shopping Cart), and the configuration will be saved if the customer moves the product from section to section (for example, adding the product to the Wishlist from the product page or adding it to the Shopping Cart from the Wishlist). The same goes for the quantities of the products.

In the Admin Panel, you can easily add and reconfigure composite products when creating orders, as well as view and change the configuration of the products in the customer's Wishlist and Shopping Cart.

9.1   Composite Products Handling for Store Customers

Products in the Wishlist

If a product that was configured (including setting custom options) on the product page, or reconfigured in the Shopping Cart is added to the Wishlist, the configuration is preserved. The same goes for the quantity of the product and the price.

On the My Wishlist page the configuration, whether it was made in the Wishlist or before the product was added, can be viewed by clicking **View Details**. Under the product image, the price quote for a non-configured product is shown as it was before, so the customer can see the original price, and change the configuration if necessary. If the product was configured before it was added to the Wishlist, the final price for the product according to chosen options is displayed under the product original price. See Figure 123.
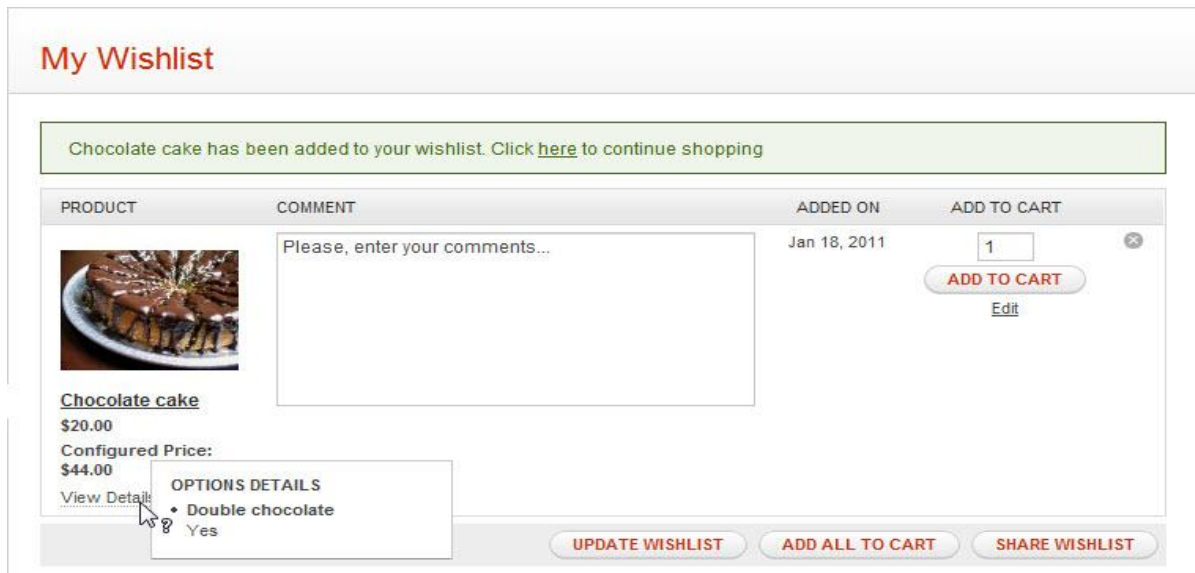
Figure 123. A Configured Product in the Wishlist

To change the configuration of the composite product from the My Wishlist page, a customer clicks the **Edit** link under the **ADD TO CART** button of the product. See Figure 123.

Clicking the **Edit** link opens the product page, where all product options are already selected and quantity is set, if they were configured before. The customer can then change the product configuration and/or quantity, and update the product in the Wishlist by clicking the **Update Wishlist** button, or add the product to the Shopping Cart.

A composite product, which was added to the Wishlist multiple times with different sets of options, appears in the Wishlist as separate products.

When a customer clicks the **Edit** link for a bundle product in the Wishlist or in the Shopping Cart, the system redirects the customer to the page that originally opens after the **Customize and Add to Cart** button is clicked on the product page, not the very first product page view for the bundle product. This means the product options are shown to a customer immediately, without having to click the **Customize and Add to Cart** button to access product configuration.

> *Note: Grouped products are stored in the Wishlist not as a set of individual simple products, but as a single grouped product, with simple products displayed beneath the grouped product as product options. This is contrary to the Order and Shopping Cart, where only individual simple products are displayed in this case.*

Products in the Shopping Cart

When the store customer adds a configured product to the Shopping Cart from the Wishlist, the configuration and the quantity are preserved.

If a composite product, that has not been previously configured, is added to the Shopping Cart from the Wishlist, the customer is redirected to the product page where product configuration is performed. The customer can then update the Wishlist, or add the configured product to the Shopping Cart. When there are several products in the Wishlist that require configuration, an error message appears when the customer tries to add them to the Shopping Cart. The message informs the customer which products should be configured. The customer then must configure the products, using the **Edit** link in the Wishlist, and add them to the Shopping Cart one by one.

To change the configuration and quantity of the product on the **Shopping Cart** page, a customer can use the **Edit** link located to the right of the product image. See Figure 124.
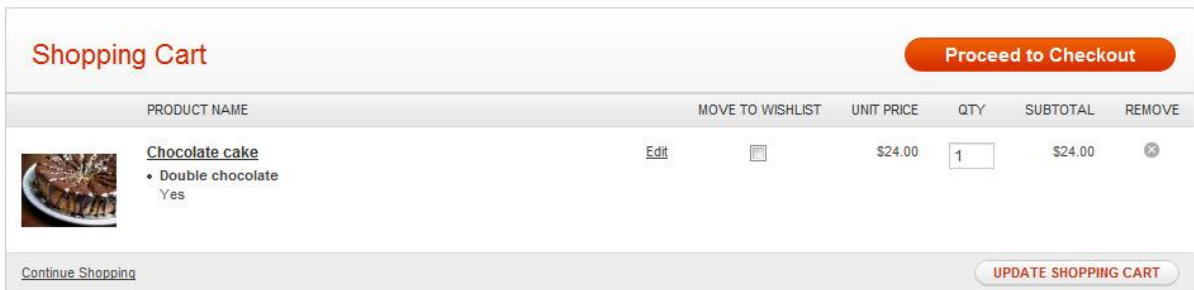
Figure 124. Composite Product in the Shopping Cart

Clicking the **Edit** link on the **Shopping Cart** page opens the product page, where all product options are already selected and quantity is set, if they were specified previously. The customer can then change the product configuration and/or quantity and return to the updated Shopping Cart by clicking the **Update Cart** button.

For simple products, clicking the **Edit** link in the Shopping Cart redirects customer to the product page with the quantity specified as it was specified in the Shopping Cart. The customer can then change the quantity and update the product in the cart.

Reconfiguring the product is available as well from the mini Shopping Cart, which is displayed when a customer clicks MY CART in the upper-right corner of the store page. The user can change the product configuration using the **Edit Item** link. See Figure 125.
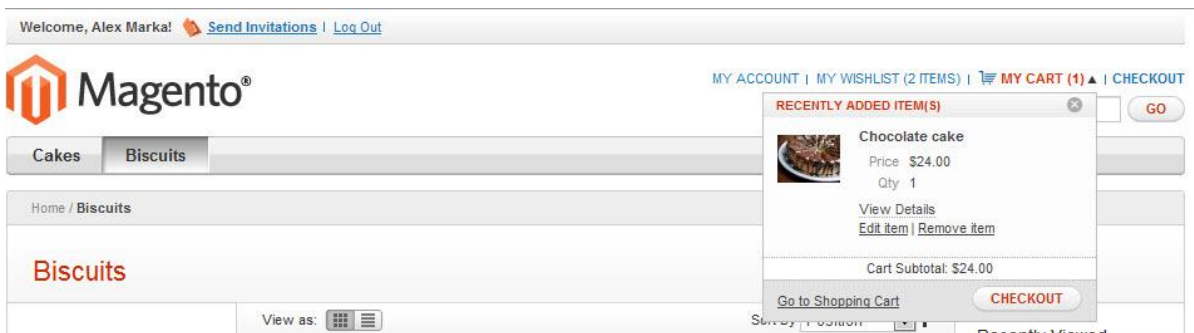
Figure 125. A Composite Product in the Mini Shopping Cart

> **Note:** *In the Shopping Cart, mini Shopping Cart, and Wishlist, if the customer clicks the product name or image, the product page opens as if browsed to it from the category or using the direct link. No product options, if any, are specified and no quantity is set.*

When a customer selects product options (if any), sets the quantity for a product, and chooses to add it to the Shopping Cart or the Wishlist, the product is added according to the options and/or quantity specified on the product page. If product configuration is identical to the configuration of an item already in cart, the quantity of identical items is increased by the quantity the customer specifies on the product page.

Products that are added to the Shopping Cart from the Wishlist are validated by the system for availability and quantity increments. If products are not in stock or can be purchased in specific quantities only, an error message appears at the top of the page.

9.2   Composite Products in the Admin Panel

In Magento Enterprise Edition, all types of products can be added to orders in the Admin Panel. Composite products can be configured during the order creation. The configurations, made by the customer, are preserved for composite products, which are added to the order from the customer's Shopping Cart, Wishlist, or last ordered items.

You can also change the configuration of the products in the customer's Wishlist and Shopping Cart.

Composite Products in Orders Created from the Admin Panel

According to the Magento logic, a composite product needs to be configured before it can be added to the order.

To open the order management section in the Admin Panel, navigate to **Sales** > **Orders**.

When the order is created from the Admin Panel, products for the order can be selected from the general list of products or moved from the Shopping Cart, Wishlist, Last Ordered Items, Products In Comparison, Recently Compared Products, or Recently Viewed Products side blocks. See Figure 126.

Figure 126. Creating the Order from the Admin Panel

In the general list of products, which opens when you click **Add Products**, a **Configure** link is displayed for each product; however, it is always unavailable for products that cannot be configured. See Figure 127.

Figure 127. Configuring Composite Products in the Admin Order

When you click the link, the **Configure Product** pop-up window appears, where you can make the configuration and specify the quantity of the associated products. If you do not click the **Configure** link for the composite product, but simply select the **Select** check box, the **Configure Product** pop-up window appears automatically. See Figure 128.
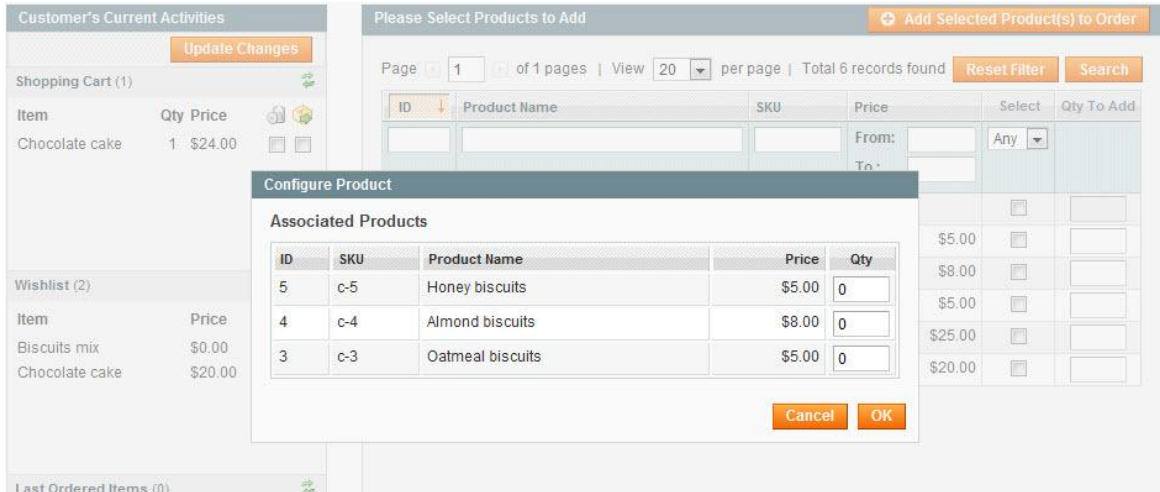
Figure 128. The Configure Product Window for Configuring a Composite Product in the Admin Panel

When you click **OK**, the configuration and quantity for the product are saved, the **Select** check box for this product becomes selected, and the quantity is displayed in the **Qty To Add** field. When you click the **Add Selected Product(s) to Order** button, having selected the products you need to add to the order, and having made the necessary configurations, the products are added to the order with the configuration and quantity you have specified. The price for the composite product in the **Items Ordered** list is displayed according to the product configuration.

> *Note: When a grouped product is added to the order from the general list of products, illustrated in Figure 127, quantities of the associated individual products can be set only in the pop-up window, which opens on clicking the **Configure** link or selecting the **Select** check box, as described earlier. The **Qty to Add** field for a grouped product is unavailable, as in the order. A grouped product is not displayed as one product, but the associated simple products are displayed instead; this is contrary to the Wishlist, where a grouped product is displayed as one product, both in the Admin Panel and the frontend.*

For the grouped products, in the Shopping Cart/Last Ordered Items list/Wishlist side blocks, a special "Configure and Add to Order" icon appears. It looks like a green gear (see Figure 129). When you click the icon, the **Configure Product** pop-up window appears, where you can perform the configuration. When you click **OK**, the simple products associated with this grouped product are added to the order. For all other product types, the usual check box is present, enabling you to add them to the order. Selecting this check box and clicking the **Update Changes** button adds the selected products to order, where they can be configured (or reconfigured).

Composite products in the Products in the Comparison List, Recently Compared Products, *and* Recently Viewed Products side blocks do not have configurations made by customers, and cannot be configured from these locations. When they are added to the order, a message appears, notifying you that the products require configuration. The only exceptions are grouped products, which cannot be added to the order if the quantities for the associated simple products are not specified.

Figure 129. Changing Product Configuration in the Admin Order

When composite products were added with no configurations, or if you need to change the configuration of the product(s) already added to the order, there is a **Configure** button for every composite product in the **Items Ordered** list. It is always unavailable for products that do not require configuring. When you click **Configure,** a pop-up window opens, where you can make product configuration changes. The system applies changes only when you finally click **Update Items and Qty's**. See Figure 129.

> *Note: The **Custom Options** link previously present for each item line is no longer available, because both product options of composite products and custom options are specified using the **Configure** button.*

Managing Composite Products in Shopping Carts and the Wishlists in the Admin Panel

In Magento Enterprise Edition, you can see and change the configuration of composite products in the customer's Shopping Cart and Wishlist in the Admin Panel.

To open the customer's information in the Admin Panel, navigate to **Customers** > **Manage Customers**, and select the customer from the list. The customer page opens. Click the **Shopping Cart** or **Wishlist** tab under Customer Information in the left column to see the products that the customer has added to the Shopping Cart or Wishlist. Now, for each composite product in these sections, the configuration is displayed under the product name and there is a **Configure** link in the Action column. It is unavailable for products that do not require configuration. See Figure 130.
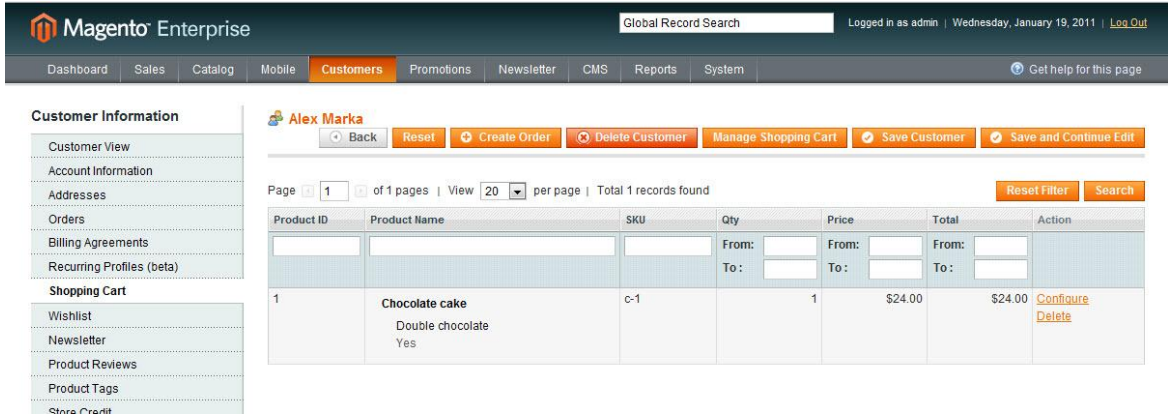
Figure 130. Composite Products in the Shopping Cart in the Admin Panel

Clicking the **Configure** link opens a pop-up window, where you can change the configuration and/or quantity of the product. If configured products are moved to the Shopping Cart or the Wishlist in the Admin Panel from the order, the Shopping Cart, or the Wishlist, all configurations are preserved.

To manage the customer's Shopping Cart from this location you can use the **Manage Shopping Cart** button on the top of the page. The **Shopping Cart for <customer> in <store view>** page opens. For the products in the Shopping Cart, the configuration made by customer is preserved. It can be changed by the store administrator using the **Configure** button, similarly to changing the configuration in the order, described earlier. See Figure 131.
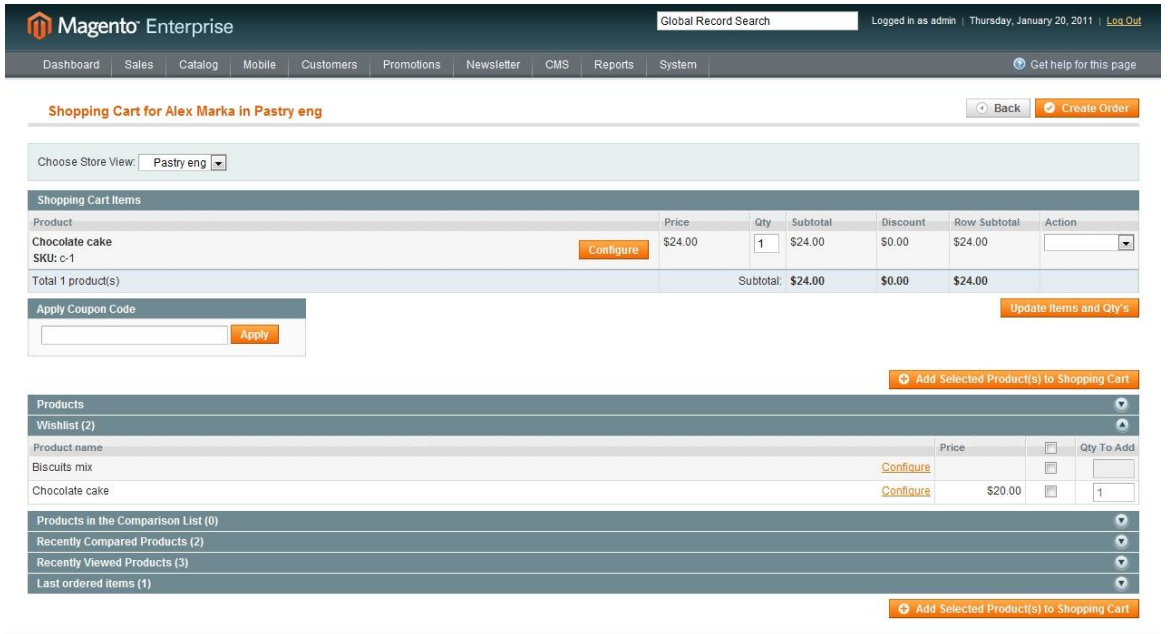
Figure 131. Composite Products in the Shopping Cart in the Admin Panel

You can configure composite products, before adding them to the Shopping Cart, using the **Configure** link in any section on this page (Products, Wishlist, Products in Comparison List, Recently Compared Products, Recently Viewed Products, or Last ordered items). See Figure 131.

10 Enhanced Catalog Search

The success of any web store greatly depends getting customers to the right products quickly. Magento Enterprise Edition provides several search features which can significantly improve search results and relevancy for your visitors and customers. Primary among these features is the ability to use Apache's Solr search engine and enhanced search recommendations and related terms.

Chapter Quick Reference

The table below lists some of the most common tasks for using Solr catalog search and where to go in the Admin Panel to perform them. The sections that follow provide step-by-step instructions on each.

TASK	ADMIN MENU
To enable Solr	System > Configuration > Catalog tab Catalog Search panel
To configure quick search with Solr to use attribute weights	Catalog > Attributes > Manage Attributes tab Frontend Properties tab
To enable search suggestions using Solr	System > Configuration > Catalog tab Catalog Search panel
To enable catalog navigation using Solr	System > Configuration > Catalog tab Catalog Search panel
To enable and configure search recommendations	System > Configuration > Catalog tab Catalog Search panel
To set up related search terms	Catalog > Search Terms

10.1　Catalog Search with Solr

Solr is a powerful search engine that supports stemming, plurals, replacements, layered navigation and more. Solr is not bundled with Magento and must be installed separately by your hosting firm or system administrator, but it is fast and enterprise ready and available for all Unix systems.

The Solr search feature in Magento Enterprise Edition enables you to choose between using the default Magento MySQL-based search or using an external Solr server for product searches on the frontend. When you enable and configure Solr, both the quick search and advanced search will be redirected to the Solr server and Magento will present results in exactly the same way as it would with the default MySQL-based search.

Solr search engine module provides Magento users with the following advantages:

- ❖ Improved search performance
- ❖ Improved search results relevancy
- ❖ Support for spelling/synonyms/stop words
- ❖ Improved layered navigation performance

Solr is especially recommended for sites with heavy traffic and search loads. Products are added to the search engine index as each product is saved in the Admin Panel so the index is kept up to date without any need for manual intervention.

Installing Solr

The Solr search engine must be installed separately from Magento. Please consult with your system administrator or hosting firm to get it installed. While Magento is unable to provide support for configuring Solr server we can provide Solr configuration and schema files to help your hosting firm or system administrator with initial server configuration. Please contact the support team for assistance.

During the installation process, you specify the host name, port, and the password to connect to the server where Solr search engine is installed. Keep track of this information, which you will need when you configure Magento to use Solr.

Note that Solr provides a number of base files which need to be filled in for every language that will be used in the system. The files are as follows:

❖ `protwords.txt` – Protected words. Use a protected word file to protect against the stemmer reducing two unrelated words to the same base word.

❖ `spellings.txt` – Definitions of misspelled words

❖ `stopwords.txt` – Words that stop the search (have no meaning for search)

❖ `synonym.txt` – Synonyms for every language

Out-of-the-box Solr supports search functionality for 20 languages. Depending on the language of the store that is opened in the frontend, Solr will call the fields of that specific language.

Configuring Your Magento Store to Use Solr

Magento quick search performed by the Solr search engine provides the following options:

❖ Search results according to the specified weight of an attribute

❖ Search terms suggestions based on the corrected customer's misspelling

❖ Search results including the Layered Navigation block

To enable Solr:

A number of parameters must be set up in the Magento Admin Panel in order to establish the connection to Solr search engine, which can be installed either on the same or on a different server from Magento.

1. Choose **System > Configuration**. Select the **Catalog** tab on the left.

2. In the **Catalog Search** panel, enable Solr by setting the following values:

❖ **Search Engine:** Determines whether the default MySqlFulltext search engine or Solr is used for product search on your websites. The search engine used and its configuration settings are global for all websites on the Magento installation. You can set the following values:

   o **MySqlFulltext:** The default Magento-native search
   o **Solr**: Enables Magento to use the Solr search engine (installed separately)

❖ If Solr is selected, the following fields will appear:

- o **Solr Server Hostname:** Specify the host name of the Solr Enterprise Search server to connect to
- o **Solr Server Port**: Specify the port number of the Solr server to connect to
- o **Solr Server Password:** The Solr server password you set when you installed Solr
- o **Solr Server Timeout:** The connection to Solr search engine should be established within the number of seconds specified in the **Solr Server Timeout** field; if it is not, the MySQL search engine is used instead of Solr
- o **Solr Server path:** Specify the path to Solr located on the server specified in the Solr Server Hostname field; the Solr server path should be specified with no starting and ending slashes

3. Click the [✔Save Config] button to save your settings

To configure quick search for Solr:

With the Solr search engine enabled, all of the product attributes that are enabled for quick search now have an additional **Search Weight** parameter. This parameter denotes the priority a specific attribute has in the Solr search. If Solr is enabled, it is also used for Advanced Search, but the search weight is not used there in generating search results.

When a customer enters a term in the search field on your web store, one of the parameters that the Solr search engine takes into account in generating results is the attribute search weight. Attributes whose search weight is greater will be searched and returned first by Solr.

For example, if there are two attributes in the system, "color" with a search weight of 1 and "description" with a search weight of 3. When a customer searches for the word "red," Solr will return a list of products whose color attribute is red and will not include in the list the products whose description contains the word "red." This result happens because the search weight of the "color" attribute is higher than that of the "description" attribute.

1. To set your attribute weights, choose **Catalog > Attribute > Manage Attributes**.

2. In the **Frontend Properties** panel, you can set the following values:

- ❖ **Search Engine:** Solr must have previously been enabled; see the "To enable Solr" instructions above.

- ❖ **Use in Quick Search:** Determines if an attribute's values will be used when returning search results:

  - o **Yes:** This attribute can be used in generating quick search results; if set to **Yes** and if Solr is enabled, the search weight field below appears.
  - o **No:** Attribute cannot be used in generating quick search results.

- ❖ **Search Weight**: The search weight of product attributes can range from 1 to 5, with 1=greatest weight; 5=least weight. Greater search weights have higher priority in returning results. If no value is specified, all attributes have a search weight of 1.

3. Click the [✔Save Attribute] button to save your settings.

To enable search suggestion for Solr:

In Magento, customers' misspellings in the search query text are corrected and customers are provided with Solr-recommended search suggestions.

When a customer makes a spelling mistake in the search term, the system displays the "Did you mean: *suggestion_link*" message on the search results page and, depending on the search suggestion configuration, more than one suggestion can be displayed to the customer.

1. Choose **System > Configuration**. Select the **Catalog** tab on the left.

2. In the **Catalog Search** panel, enable Solr by setting the following values:

   ❖ **Search Engine:** Solr must have previously been enabled. See the "To enable Solr" instructions above.

   ❖ **Enable Search Suggestions:** Determines if search suggestions will be provided by Solr in response to common misspellings:

     o **Yes:** Makes the search suggestions functionality available to customers. Enabling search suggestions can slow down search performance (depending on your hardware, configuration and search volume). If search performance becomes slow, disable this option.

     o **No:** Search suggestions will not be provided with search results.

   ❖ **Search Suggestions Count:** Specify the number of suggestions that will be provided to the customer on running search in the frontend. The suggested terms are those that most closely correspond to the term being searched. By default, this field is set to display two suggestions.

   ❖ **Show Results Count for Each Suggestion:** Set to **Yes** to display the number of search results for each search suggestion. (Depending on the store theme, this number is usually shown in brackets next to the suggestion.)

3. Click the [✔Save Config] button to save your settings.

To enable catalog navigation using Solr:

All of the attributes set to be used in layered navigation are added to Solr index. As a result, Solr can also be used to generate the layered navigation. In order to add these attributes to Solr search results, the store administrator needs enable Solr for catalog navigation.

1. Choose **System > Configuration**. Select the **Catalog** tab on the left.

2. In the **Catalog Search** panel, enable Solr by setting the following values:

   ❖ **Search Engine:** Solr must have previously been enabled. See the "To enable Solr" instructions above.

   ❖ **Enable Solr Engine for Catalog Navigation:** Determines if Solr will be used for generating the layered navigation:

     o **Yes:** Uses Solr instead of the MySQL Fulltext search to generate the layered navigation.

     o **No:** Magento-native catalog and layered navigation is used.

3. Click the [✔Save Config] button to save your settings.

10.2   Related-Terms Search Recommendations

With search recommendations enabled and set up, the store administrator is able to more easily specify search synonyms for customers' search terms. This feature greatly expands the search results that are available to customers. Search recommendation functionality is independent of the search engine selected and is available for both MySql Fulltext and Solr search.

The store administrator can specify the search recommendations list for a specific search term and the search engine provides the standard search results and also proposes the list of related terms with the search results.

For better performance, Magento also splits the searched word combination into separate words and automatically provides search recommendations for each of them, if these are available in the system. For example, if a visitor searches for the phrase "hp laptop," the search system splits the phrase into two words, "hp" and "laptop," and provides five search recommendations for the first term and twelve for the second one.

To enable related terms search recommendations:

When search recommendation are enabled, when a visitor searches for a term that has search recommendations set up for it, the visitor's search results are provided as well as related search terms (the search recommendations) with a count of the number of results for each. Clicking any of the recommended terms takes the visitor to the search results page for the selected search term.

Search recommendations functionality is independent of the search engine selected and is available for both MySql Fulltext and Solr search.

1. Choose **System > Configuration**. Select the **Catalog** tab on the left.

2. In the **Catalog Search** panel, enable search recommendations by setting the following values:

❖ **Enable Search Recommendations:** Determines if search recommendations are provided on the frontend for synonyms and other related searches:

o **Yes:** Uses Solr instead of the MySQL Fulltext search to generate the layered navigation.

o **No:** Magento-native catalog and layered navigation is used.

❖ **Search Recommendations Count**: Specify the number of words that will be provided to the customer as recommended terms related to customer's search. By default, no more than five recommended terms are shown to customers.

❖ **Show Results Count for Each Recommendation:** If **Yes**, the number of products found for the proposed search recommendation is shown in the brackets next to it.

3. Click the [✔Save Config] button to save your settings.

To relate search terms:

1. To add related search variants to a search term, choose **System > Configuration**.
   The resulting Searches grid provides the list of all terms that have been searched by customers on the website. These include the misspelled and incorrectly entered words. Magento also counts the number of each term being searched by customers which helps identify the most frequently searched terms and add synonyms or search recommendations for them.

2. Click on any of the search terms in the list.

3. On the resulting Edit Search page, to see all previously searched terms click the **[Reset Filter]** button located in the upper right of the Related Searches gird. Filter the list as desired to find specific related searches.

4. Select the check boxes for all search queries to be added as search recommendations for this search term.

5. Click the **[✔Save Search]** button to save your settings.

> *Tip: Search queries created through the Admin Panel will not affect the search results count. In order to generate the count, the query must be run from the frontend.*

11 Importing and Exporting Product and Customer Data

Unless you have a small product catalog, the prospect of creating each product manually, one by one, is daunting. Magento has a solution: Import your product data from a comma-separated values (CSV) spreadsheet file. You can also export your product data to a CSV file.

If you have customer data in a database or spreadsheet, you can import that data into Magento as well.

11.1 Working with CSV Files

In order to import a CSV file into Magento, it must have certain characteristics. Specifically, each column heading must exactly match the Attribute Code for the attribute in that column.

> **Tip:** *To ensure that a CSV file's column headings are understood by Magento, first export a product CSV file (see "Exporting Product and Customer Data," page 127). You can then edit this file (by adding or updating rows) and then re-import it.*

For the Category column, specify product category in textual form based on a category's path, with a slash (/) between each category level; for example, `Furniture/Living Room`. Do not include the Root Category in the path.

11.2 Importing Customer and Product Data

Importing is available for all product types, except bundle, gift card, and downloadable products. You can import customer data, product data, and product images.

To import customer or product data to Magento:

1. Log in to the Magento Admin Panel.

2. In the top menu, select **System > Import/Export > Import** to open the Import page, as shown in Figure 132.

Figure 132. Import Page

3. In the **Import Settings** field set, specify the following:

❖ In the **Entity Type** drop-down menu, select either **Products** or **Customers**.

❖ In the **Import Behavior** drop-down menu, select the way complex data will be handled if imported records already exist in the database. Complex data for products includes categories, websites, custom options, tier prices, related products, up-sells, cross-sells, and associated products data. Complex data for customers includes addresses. The following options for handling the complex data are available:

   o **Append Complex Data**: The new complex data will be added to the existing complex data for the existing entries in the database.

   o **Replace Existing Complex Data**: The existing complex data for the already existing entities will be replaced.

   o **Delete Entities**: If entities that are being imported already exist in the database, they will be deleted from the database.

❖ In the **Select File to Import** field specify the import CSV file.

4. Click the **Check Data** button in the upper-right corner of the page. The system validates the file. If the file is valid, the corresponding message and the **Import** button appear. If some of the rows in the imported file are not valid and cannot be imported, the corresponding information is included to the message, but you can proceed with importing. The invalid rows will be skipped.

5. For more information about the valid CSV file structure, see "Catalog Products CSV File Structure," page 128, and "Customers CSV File Structure," page 129.

6. If needed, make corrections to the CSV file.

7. Click the **Import** button to import the data into the database.

File Validation

File validation includes the following:

1. All attribute values are checked for conformance with the required data type (decimal, integer, varchar, text, datetime).

2. The complex data, service data (see "Catalog Products CSV File Structure," page 128, and "Customers CSV File Structure," page 129 for details), and attributes whose values must be from a defined set(such as a drop-down or multiple select input type), are checked to ensure their values exist in the defined sets.

3. For new entities, the presence of the required attributes values in the file is checked. For existing entities, the presence of the required attributes values is not checked, but if a required value is specified, it is validated by the attribute type.

*Note: The "Required" option of the attributes is set in the Magento Admin Panel. To access the attribute management section, select **Catalog** > **Attributes** > **Manage Attributes**.*

Importing Product Images

Product images can be bulk imported into Magento as well. This feature saves you the trouble of uploading individual image files to your store.

To import product images:

1. Place the image files that you need to import in the subfolders in the **%path_to_your Magento_instance%/media/import** folder. Subfolders for the files should be created according to the following logic: Name the first folder using the first symbol of the file name, and then create a subfolder and name it using the second symbol of the file name. For example: for importing **filename.jpg** the path to the file will be the following: **%path_to_your_Magento_instance%/media/import/f/i/filename.jpg**

   Set the RE0777 permissions for the folders, and at least 0666 permissions for the image files.

2. In the import CSV file, specify the relative path to the image file (For example, **/f/i/filename.jpg**). The following columns correspond to product images:

   o **image**

   o **small_image**

   o **media_image**

3. Perform the import in the same manner as you would import product data.

   Important Note: *Names of the image files you need to import should contain only lowercase symbols.*

The rules and restrictions for importing include the following:

For entities that are new and do not exist in the database:

   ❖ The entities are added with the attribute values specified in the CSV file.

   ❖ If there is no value, or there is a non-valid value, for a required attribute with no default value set, then the entity (the corresponding row or rows) cannot be imported.

   ❖ If there is no value, or there is a non-valid value, for a required attribute with the default value set, then the entity (the corresponding row or rows) is imported, and the default value is set for the attribute.

   ❖ If the complex data is not valid, then the entity (the corresponding row or rows) cannot be imported.

For entities that already exist in the database:

   ❖ For attributes that are not complex data, the values from the import file, including the empty values for the non-required attributes, replace the existing values.

   ❖ If there is no value, or there is a non-valid value, for a required attribute, then the existing value is not replaced.

   ❖ If the complex data for the entity is invalid, the entity (the corresponding row or rows) cannot be imported, except the case, when **Delete Entities** was selected in the **Import Behavior** drop-down menu.

   ❖ The way complex data is handled depends on the settings in the **Import Behavior** drop-down menu:

o   For both new and existing entities, if an attribute, specified in the import file, exists in the system, and its values are taken from the defined set of values, but the value, specified in the import file does not exist in the defined set, the row is imported and the default value, if it is defined, is set for this attribute. Otherwise the corresponding row cannot be imported.

o   If an attribute name is specified in the import file but has not been defined in the system, it is not created in the system, and its values are not imported.

The file is invalid and cannot be imported if:

o   All rows in the file are invalid

o   A non-existing service data or complex data name is specified in the import file (that is, there is a column with a "_<non-existing name>" heading)

11.3   Exporting Product and Customer Data

Exporting is available for all product types except gift card products.

To export customer or product data:

1. Log in to the Magento Admin Panel.

2. In the Magento top menu, select **System > Import/Export > Export**. The Export page opens.

3. In the **Export Settings** field set specify the following:

   ❖ In the **Entity Type** drop-down menu, select either **Customers** or **Products**. The **Entity Attributes** field set appears.

   ❖ In the **Export File Format** drop-down menu, select the format of the file for the exported data. Currently only the CSV format is available.

4. In the **Entity Attributes** field set you can include or exclude data to be exported according to the entity attribute values. The following export restrictions can be set:

   ❖ You can filter the data to be exported by attributes values. To include the records with certain attribute values, set the required values of the attributes in the **Filter** column.

   ❖ To exclude products or customers with certain attribute values, you need to set the values of the attributes for which the entities will be excluded, and select the corresponding check boxes in the **Skip** column. See Figure 133.
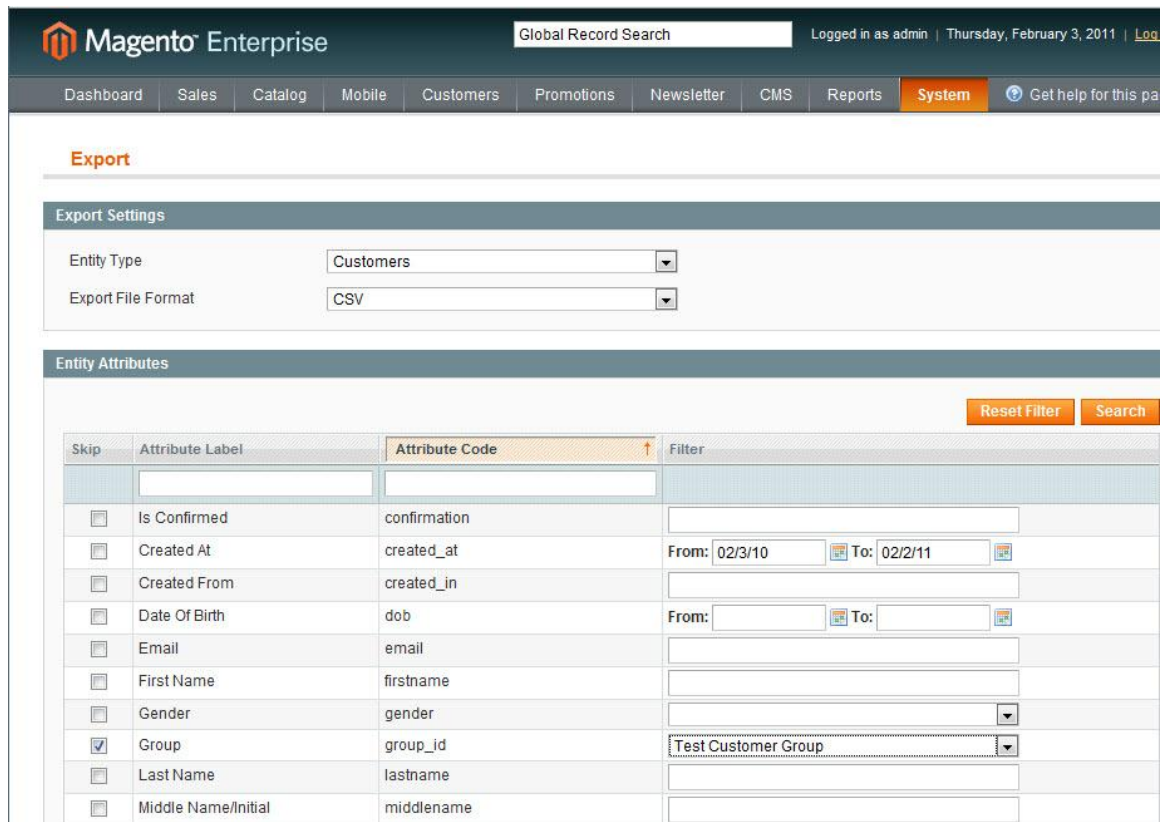
Figure 133. Exporting Customers Meeting Certain Conditions

5. Click the **Continue** button in the lower-right corner of the page. You will be asked to specify the location for the file, or it will be saved in the default location depending on your browser settings.

The CSV file that is generated can be used for importing data to Magento.

11.4 Catalog Products CSV File Structure

The imported or exported catalog products CSV file contains information about products and relations between them. The table has the following structure:

1. The first row of the table contains the names of the columns, there are two types of the names:

❖ `_<name>` - The names of the service columns and complex data columns. Service columns contain entity properties, which are not attributes. For example, columns with website or product type information are service columns. The underscore as first character is used to distinguish these columns from the attribute column names.

❖ `<attribute name>` – the names of the columns with values of both system-created attributes and attributes created by the store administrator.

2. Other rows contain attributes values, service data, and complex data. If a row contains the value in the SKU column, then this row the rows below it describe the product. Each new SKU value begins the description of the next product.

3. In the import procedure, if a row that contains the SKU value is invalid, then this row, and all other rows with data for that product cannot be imported.

The minimal valid table contains only the SKU column. It can be used to delete entries from the database.

There is no limit to the number of the columns in the table. Columns that do not contain data will be ignored.

11.5   Customers CSV File Structure

The imported or exported customers CSV file contains the table with information about customers. The table has the following structure:

1. The first row of the table contains the names of the attribute columns (which are the same as attribute codes). There are two types of column names:

    ❖ `_<name>` - The names of the service columns, and complex data columns. Service columns contain entity properties, which are not attributes. For example, columns with website or store information are service columns. The underscore as first character is used to distinguish these columns from the other attributes names.

    The "_address_default_billing" and the "_address_default_shipping" columns are the default billing and shipping addresses flags. If the address in the row is the default billing and/or shipping address of the client, the "_address_default_billing" and/or "_address_default_shipping" columns in this row will have the "1" value.

    ❖ `<attribute name>` – The names of the columns with values of both system-created attributes, and attributes created by the store administrator.

2. Other rows contain attribute values, service data, and complex data. Each row with non-empty values in the "email" and "_website" columns starts the description of the subsequent customer. Each row can represent customer data with or without address data, or the address data only. In case a row contains only the address data, values in the columns, related to the customer profile, will be ignored and may be empty.

To add or replace more than one address for a customer, in the import file add a row for each new address with empty customer data and the new or updated address data below the customer data row.

When the file is validated before the import starts, all customer address data values are validated, if at least one address-related column contains a non-empty value. Therefore, if you do not need to add or replace address data for a customer, delete values in all address columns for this customer.

12 Scheduled Import and Export

Magento Enterprise Edition enables you to perform import and export jobs on a user-defined schedule. Scheduled imports and exports can be run on a daily, weekly or monthly basis; import and export files can be located and placed on the local Magento servers or remote FTP servers. Scheduling import and export jobs is implemented using the cron job scheduler.

This feature was introduced in Version 1.11 of Magento Enterprise Edition.

12.1 Terminology

The following terms are used in reference to this feature:

❖ **Scheduled import:** Imports that are created using the Scheduled Import/Export feature.

❖ **Scheduled export:** Exports that are created using the Scheduled Import/Export feature.

12.2 Scheduled Import/Export – a Quick View

Using the Scheduled Import/Export feature does not require additional configuration.

To access the scheduled import/export management tools, select **System** > **Import/Export** > **Scheduled Import/Export**. Figure 134 shows the Scheduled Import/Export page.

Figure 134. Scheduled Import/Export Managing Page

To create a new scheduled import or export job, click the **Add Scheduled Import** or **Add Scheduled Export** button. After being saved, a new scheduled import or export is added to the list on the Scheduled Import/Export page.

After each scheduled import and export operation, a copy of the import or export file is placed in the `var/log/import_export/%Y%/%m%/%d%/` directory on the Magento local server. You can configure cleaning it under **System** > **Configuration** > ADVANCED > **System**, on the **Scheduled Import/Export File History Cleaning** field set.

The details of each import/export operation are not written to a log, but if an error occurs, you will receive an Import or Export Failed email, which contains the error description.

After each import job, a re-index operation is performed automatically.

12.3   Scheduled Import and Export Configuration

The Scheduled Import/Export functionality is implemented by the Enterprise_ImportExport module. The module is enabled by default. In the Magento Admin Panel, modules are managed in **System > Configuration > Advanced**.

No additional settings are required to start using the Scheduled Import/Export functionality.

12.4   Scheduled Import

The Scheduled Import feature is similar to the manual Import feature (available under **System > Import/Export > Import**) with respect to the available import file format and types of import entities:

❖ The import file should be in `.CSV` format;

❖ You can import product and customer data.

The advantage of the Scheduled Import is that you can import a data file multiple times automatically, after specifying the import parameters, and schedule only once.

The details of each import operation are not written to a log, but in case of failure you will receive an Import Failed email, which contains the error description.

The result of the last scheduled import job is displayed in the Last Outcome column on the Scheduled Import/Export page.

After each import operation, a copy of the import file is placed in the `var/log/import_export/%Y%/%m%/%d%/` directory on the server where Magento is deployed. The timestamp, the marker of the imported entity (products or customers), and the type of the operation (in this case, import) are added to the import file name. For information about cleaning the file history, see "Cleaning the Scheduled Import/Export File History," page 137.

After each scheduled import job, a re-index operation is performed automatically. On the frontend, changes in the descriptions and other text information are reflected after the updated data goes to the database, and the changes in prices are reflected only after the re-index operation.

To create a scheduled import:

1. Select **System > Import/Export**, and click **Scheduled Import/Export**. The Scheduled Import/Export page opens.

2. Click the **Add Scheduled Import** button in the upper right corner of the page. The New Scheduled Import page opens.

3. In the **Import Settings** field set, specify the following:

Option	Description
Name	The name of the import. Helps you to distinguish it if many different scheduled imports are created.
Description	Optional. You can enter an additional description.
Entity Type	Defines what data will be imported. Select **Products** or **Customers**.
Import Behavior	Defines how complex data will be handled if entities, which are being imported, already exist in the database. Complex data for products include categories, websites, custom options, tier prices, related products, up-sells, cross-sells, and associated products data. Complex data for customers include addresses. The following variants of handling the complex data are available: • **Append Complex Data -** The new complex data will be added to the existing complex data for the already existing entries in the database. This is the default value. • **Replace Existing Complex Data** - The existing complex data for the already-existing entities will be replaced. • **Delete Entities** - If entities which are being imported already exist in the database, they will be deleted from the database.
Start Time	Set the start hour, minutes, and seconds of the import.
Frequency	Define how often the import will be run. Select between **Daily**, **Weekly,** and **Monthly**.
On Error	Define the system behavior in case errors are found during file validation. Select between the following options: • **Stop Import** - The file is not imported if any errors are found during validation. This is the default value. • **Continue Processing** - In case errors are found during validation, but importing is possible, the file is imported.
Status	The import is enabled by default. You can suspend it by setting the **Status** to **Disabled**.

On the **Import File Information** field set, specify the following

Option	Description
Server Type	You can import from a file located on the same server where Magento is deployed (select **Local Server**) or from the remote FTP server (select **Remote FTP**). If you select **Remote FTP**, additional options for credentials and file transfer settings appear.
File Directory	Specify the directory where the import file is located. If **Server Type** is set to **Local Server**, specify the path relative to the Magento installation directory. For example, `var/import`.

Option	Description
File Name	Specify the name of the import file.
FTP Host[:Port] (**present if** Server Type **is set to** Remote FTP)	Specify the FTP host domain name or IP address of the FTP server where the import file directory is located.
User Name (**present if** Server Type **is set to** Remote FTP)	Specify the user name for accessing the remote FTP server.
Password (**present if** Server Type **is set to** Remote FTP)	Specify the password for accessing the remote FTP server.
File Mode (**present if** Server Type **is set to** Remote FTP)	Defines the file mode, in which the file will be transferred from the remote FTP. Select **Binary** or **ASCII.**
Passive Mode (**present if** Server Type **is set to** Remote FTP)	Defines whether the file will be transferred from the remote FTP in passive mode. Select **Yes** or **No**.

On the **Import Failed Emails** field set specify the following

Option	Description
Failed Email Receiver	Specify the email address to which an email notification (failed import email) is sent if the import fails.
Failed Email Sender	Specify the email address that is used as the sender for the import failed email.
Failed Email Template	Select a template for the import failed email. By default, only the **Import Failed (Default Template from Locale** option is available. Custom templates can be created under **System** > **Transactional Emails**.
Send Failed Email Copy To	The email address to which a copy of import failed email is sent.
Send Failed Email Copy Method	Select the copy sending method for the import failed email.

Note: *You can set General Contact, Sales Representative, and other store email addresses under* **System > Configuration > Store Email Addresses**.

4. To save the new scheduled import, click **Save** in the right upper corner of the page. The new scheduled import job is added to the list on the Scheduled Import/Export page. From this page it can be run immediately for testing and edited.

When you create a scheduled import, the import file is not validated immediately; the validation is performed each time before the import job is executed.

12.5   Scheduled Export

The Scheduled Export feature is similar to the manual Export feature (available under **System** > **Import/Export** > **Export**) with respect to the available export file format and types of entities that can be exported:

❖ You can export to `.CSV` format;

❖ You can export product and customer data.

The advantage of the Scheduled Export is that you can export data multiple times automatically, after specifying the export parameters, and schedule only once.

The details of each export are not written to a log, but in case of failure you will receive an Export Failed email, which contains the error description.

The result of the last export job is displayed in the Last Outcome column on the Scheduled Import/Export page.

After each export, the export file is placed in the user-defined location, and a copy of the file is placed in the `var/log/import_export/%Y/%m/%d/` directory on the server where Magento is deployed. The timestamp and the marker of the exported entity (products or customers) and type of the operation (in this case, export) are added to the export file name. For information about cleaning the file history, see "Cleaning the Scheduled Import/Export File History," page 137.

To create a scheduled export:

1. Select **System** > **Import/Export**, and click **Scheduled Import/Export**. The Scheduled Import/Export page opens.

2. Click the **Add Scheduled Export** button in the upper right corner of the page. The New Scheduled Export page opens.

3. In the **Export Settings** field set, specify the following:

Option	Description
Name	The name of the export. Helps you to distinguish it if many different scheduled exports are created.
Description	Optional. You can enter an additional description.
Entity Type	In the **Entity Type** drop-down menu, select what data you want to export. Select **Products** or **Customers**. after you select the entity; the **Entity Attributes** field set appears, where you can include or exclude data to be exported according to the entity attribute values.
File Format	Select the format of the export file. Currently only the **.CSV** option is available.

Option	Description
Start Time	Set the start hour, minutes, and seconds of the export.
Frequency	Define how often the export job will be executed. Select between **Daily**, **Weekly** and **Monthly**.
Status	A new scheduled export is enabled by default. You can suspend it by setting **Status** to **Disabled**.

In the **Export File Information** field set, specify the following

Option	Description
Server Type	You can place the export file on the same server where Magento is deployed (select **Local Server**) or on the remote FTP server (select **Remote FTP**). If you select **Remote FTP**, additional options for credentials and file transfer settings appear.
File Directory	Specify the directory where the export file is placed. In case **Server Type** is set to **Local Server**, specify the relative to Magento installation path. For example, `var/export`.
FTP Host[:Port] **(present if** Server Type **is set to** Remote FTP**)**	Specify the FTP host domain name or IP address of the FTP server where the export file directory is located.
User Name **(present if** Server Type **is set to** Remote FTP**)**	Specify the user name for accessing the remote FTP server.
Password **(present if** Server Type **is set to** Remote FTP**)**	Specify the password for accessing the remote FTP server.
File Mode **(present if** Server Type **is set to** Remote FTP**)**	Defines the file mode in which the file will be transferred to the remote FTP. Select **Binary** or **ASCII.**
Passive Mode **(present if** Server Type **is set to** Remote FTP**)**	Defines whether the file will be transferred to the remote FTP in passive mode. Select **Yes** or **No**.

In the **Export Failed Emails** field set, specify the following:

Option	Description
Failed Email Receiver	Specify the email address to which an email notification (export failed email) is sent if the export fails.
Failed Email Sender	Specify the email address that is used as export failed email sender.
Failed Email Template	Select a template for the failed export email. By default, only the **Export Failed (Default Template from Locale)** option is available. Custom templates can be created under **System** > **Transactional Emails**.
Send Failed Email Copy To	The email address to which a copy of the failed export email is sent.
Send Failed Email Copy Method	Specify the copy sending method for the export failed email.

In the **Entity Attribute** field set there a list of all available attributes for the selected entity. Here you can include or exclude data to be exported according to the entity attribute values. The following export restrictions can be set:

❖ You can filter the data to be exported by attributes values. To include the records with certain attribute values, set the required values of the attributes in the **Filter** column.

❖ To exclude products or customers with certain attribute values, you need to set the values of the attributes for which the entities will be excluded, and select the corresponding check boxes in the **Skip** column.

4. To save the new scheduled export, click **Save** in the right upper corner. The new scheduled export job is added to the list on the Scheduled Import/Export page. From this page it can be run immediately, for testing, and edited.

12.6 Managing Existing Scheduled Import and Export Jobs

You can view and manage all existing scheduled imports/exports on the Scheduled Import/Export page. To open it, select **System** > **Import/Export** > **Scheduled Import/Export**.

All existing scheduled import/export jobs are displayed in the list. In the Last Outcome column the result of the last job is displayed. If the import or export has not been run yet, it has the value **Pending** in the Last Outcome column.

To run the scheduled import/export immediately:

In the Action column select **Run**.

To edit the scheduled import/export:

In the Action column select **Edit**, or click the import/export job in list.

You can delete and change the status for multiple scheduled imports/exports at one time.

To delete scheduled imports/exports:

1. Choose the scheduled import/export jobs by selecting the corresponding check boxes in the first column.

2. In the **Actions** drop-down menu select **Delete**.

3. Click the **Submit** button next to **Actions**. The confirmation dialog box appears.

4. Confirm the deletion by clicking **OK**.

To change status of scheduled imports/exports:

1. Choose the scheduled imports/exports by selecting the corresponding check boxes in the first column.

2. In the **Actions** drop-down menu select **Change Status.** The **Status** drop-down menu appears.

3. In the **Status** drop-down menu select **Enabled** or **Disabled**.

4. Click the **Submit** button next to **Actions**.

12.7   Cleaning the Scheduled Import/Export File History

After each scheduled import and export operation copies of import and export files are placed in the `var/log/import_export/%Y/%m/%d/` directory. These files are called *history files*.

To set the old import/export files cleaning:

1. Select **System**, and click **Configuration**. The configuration is done on the global level, so make sure that the **Current Configuration Scope** in the upper-left corner of the page is set to **Default Config**.

2. Under ADVANCED in the left column click **System**.

3. In the **Scheduled Import/Export File History Cleaning** field set, specify the following options:

Option	Description
Save Files, Days	Specify for how long import/export history files are stored.
Enable File History Cleaning	Select **Yes** if you want to activate the automatic deletion of old import/exports files. By default, it is set to **No**.
Start Time	Specify the time when the files deletion starts.
Frequency	Specify how often the cron checks if there are history files that should be deleted. Select between **Daily**, **Weekly**, and **Monthly**.
Error Email Recipient	Specify the email address to which the error email is sent if the file cleaning process fails.
Error Email Sender	Select the email address from which the error email is sent

Option	Description
Error Email Template	Select the template for the error email. By default, only the **File History Cleaning Failed (Default Template from Locale)** option is available. Custom templates can be created under **System** > **Transactional Emails**.

4. To save the file history cleaning settings, click the **Save Config** button in the upper-right corner of the page.

13 Setting Up Your Store Hierarchy

If you have planned your store hierarchy (see "Store Hierarchy," page 39) and set up the appropriate root categories (see "Creating Categories," page 63), you are ready to set up your store hierarchy.

To set up your store hierarchy:

1. In the Admin Panel, select **System > Manage Stores** to open the Manage Stores page, as shown in Figure 135.

Figure 135. Manage Stores Page

2. To create a new website:

   a. Click **Create Website** to open the New Website page.

   b. In the **Name** field, specify a name for this website. Typically this will be the site's domain name (for example, `somecompany.com`).

   c. In the **Code** field, specify a code name that the Apache Web server will use to point to the domain name (for example, `somecompany_com`).

   d. (Optional) In the **Sort Order** field, specify an integer number to determine where this website is listed in scope-selection drop-down menus in the backend. A specification of 1 places this website at the top of the list, 2 places it second, and so on.

   e. Click **Save Website**.

3. To create a new store:

   a. From the Manage Stores page, click **Create Store** to open the New Store page.

   b. In the **Website** drop-down menu, select the website that will be the parent of this store.

   c. In the **Name** field, specify a name for this store.

   d. In the **Root category** drop-down menu, select the root category for this store. A root category can be assigned to more than one store, or to stores in different websites.

   e. Click **Save Store**.

4. To create a new store view:

   a. From the Manage Stores page, click **Create Store View** to open the New Store View page.

   b. In the **Store** drop-down menu, select the store that is associated with this store view.

   c. In the **Name** field, specify a name for this store view, for example, French.

d. In the **Code** field, specify a code for this store view, for example, somecompany.fr.

e. In the **Status** drop-down menu, select whether this store view is **Enabled** or **Disabled**.

f. (Optional) In the **Sort Order** field, specify an integer number to determine where this store view is listed under its associated store in scope-selection drop-down menus in the backend. A specification of 1 places this website at the top of the list, 2 places it second, and so on.

g. Click **Save Store View**.

> *Note:* *If you are associating a separate domain with each website, some modifications must be made to the web server configuration files. For details, see the following Magento Knowledge Base article:* http://www.magentocommerce.com/knowledge-base/entry/tutorial-multi-site-multi-domain-setup

14 Design and Content

This chapter describes how to customize the look-and-feel of your web store by applying easy to use options that are provided in the Magento backend.

14.1 Overview

Magento provides a variety of simple-to-use design options that enable you to apply your own customized look-and-feel to your Magento web store with basic HTML knowledge.

> *Tip:* See *http://www.magentocommerce.com/design_guide* *for a description of how interfaces, themes, skins, layouts and blocks are used and to gain access to resources that will assist in their implementation.*

14.2 Terminology

Following are some of the terms you should be familiar with when customizing the design of your store:

Block: A Magento feature that modularizes page elements for easier management.

Content block: Block that produces content, such as the content of a category list, mini cart, or product list. See also **Structural block**.

Content Management System (CMS): A Magento feature that stores pages or parts of pages that you can use in your store.

Layout: File that maps content blocks to structural blocks. More than one content block can be mapped to a single structural block.

Skin file: File that define the visual functional specifications of page elements, such as text, graphics, and the logic behind buttons and other controls.

Structural block: Block created for the sole purpose of assigning visual structure to a store page; for example, header, footer, left column, main column.

Template: A collection of XML and other files that define the block structure and logic for visual presentation.

Theme: a collection of templates and skin files that control the visual elements of your store. These visual elements are applied to all pages in your store, giving your store a consistent look and feel throughout.

14.3 Changing the Web Store's Theme

When you first install Magento, the design elements of your store are based on the Default Theme. You can modify this theme, add themes created by others, or create new themes from scratch.

> **Tip:** *To design your own theme, see the Designer's Guide to Magento at*
> *http://www.magentocommerce.com/design_guide*

To add and activate a theme in your store:

1. Go to the Magento Connect site (http://www.magentocommerce.com/magento-connect). This site contains hundreds of extensions, which are add-ons to Magento software that can extend or enhance the look or functionality of your store. New ones are added often.

2. Click on the **Core** link to select one of the free extensions provided by Magento. The extensions are listed in the center of the page, as shown in Figure 136.
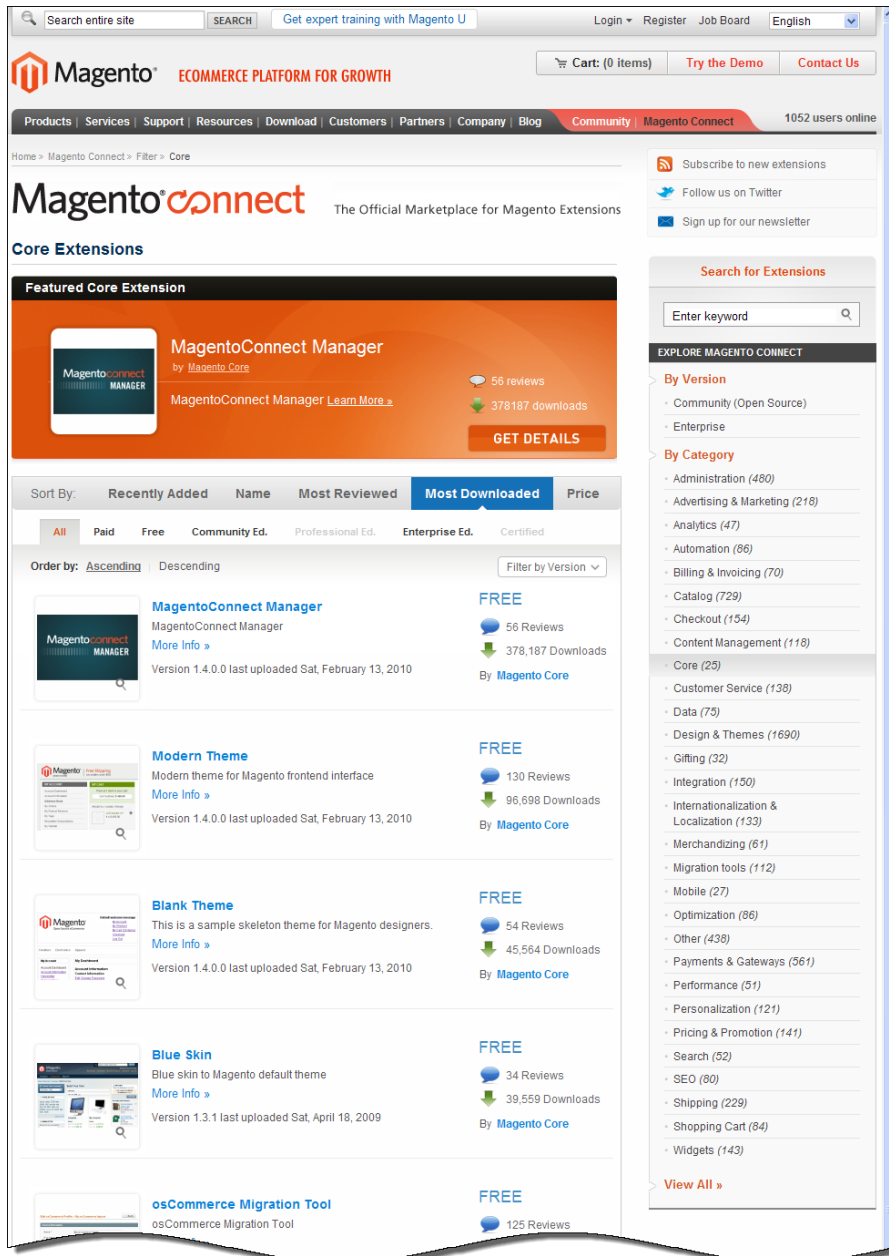
Figure 136. Magento Connect

3. This example demonstrates the implementation of the Modern Theme. Scroll down the list of extensions and select the **Modern Theme**.

4. Install the theme as you would any other Magento extension. See "Extending Magento," page 344, for more information.

5. You can now activate this theme so that the web store appears with a new layout. Select **System > Configuration > Design** and expand the **Themes** section. The Design page is displayed, as shown in Figure 137.

Figure 137. Design Page

> *Tip:* The **Add Exception** *option enables you to define special themes displayed for users using specific browsers. An example is showing an iPhone optimized theme for users using this device to browse the store.*

6. In the **Default** field, specify the name of the theme. In this example it is called **Modern**.

7. Click the **Save Config** button on the top right of the page. The header, footer, menu bar, and background of the frontend now look different according to the new theme.

8. If your home page appears incorrect, it may be because the layout that you selected is suited to two columns when your home page has one column or vice versa. For the **Modern** theme, the following change must be applied so that that the frontend home page appears properly. From the top menu bar in the Admin Panel, select **CMS > Pages** to display the Manage Pages page, as shown in Figure 138.

Figure 138. Manage Pages Page

This page shows two Home Page rows:

❖ One row has the value **2 columns with right bar** in its **Layout** column and its **Status** column shows **Enabled**.

❖ The other row has the value **1 column** in its **Layout** column and its **Status** column shows **Disabled**.

9. Click on the first and second rows of the home page. The page shown in Figure 139 is displayed for each of them.

Figure 139. Edit Page

❖ Change the **Enabled** status of the page with **2 columns with right bar** layout to **Disabled**.

❖ Change the **Disabled** status of the page with **1 column** layout to **Enabled**. The homepage of the frontend now appears similar to the page shown in Figure 140.

Figure 140. Frontend Home Page with New Theme

14.4   Managing CMS Pages

Content Management System (CMS) pages are static pages such as your **Homepage**, **About Us** and **Customer Service** pages that provide information about the web store and are managed through the Backend panel. CMS Pages are full pages that are available via their own URL addresses. Static Blocks are sections of code or graphics that can be referenced inside CMS pages as well as Category landing pages. They are page elements that can be reused and referenced throughout your site.

The following example shows how to create a new page in Magento and then how to create a link to it from your store footer.

To add a CMS page:

1. Select **CMS > Pages** to display the list of currently defined CMS pages as shown in Figure 138.
2. Click the **Add New Page** button on the top right of the page to display the New Page page, as shown in Figure 141.

Figure 141. New Page

3. In the **Page Title** field, specify the words to appear in the browser's title bar.

4. In the **URL Key** field, specify the unique identifier to be used in the URL. It must contain all lower case letters and no spaces. The following example uses `our_history`.

5. Leave the default value in the **Store View** field.

6. In the **Status** field, select **Enabled**.

7. Click **Content** in the left navigation bar. Use the WYSIWIG editor to define the content for this page.

8. Click **Design** in the left navigation bar to open the design options, as shown in Figure 142.

Figure 142. Custom Design Options

9. Click the **Layout** field and then select one of the following options:

   ❖ **Empty:** Shows the content of an empty page with no header, footer or side bars.

   ❖ **1 Column:** Displays all the content entered in a single central column with a header and footer.

   ❖ **2 Columns with left/right bar:** Displays all the content entered on the page with a header, footer and left/right bar.

   ❖ **3 columns:** Displays both the left and right columns from the design package with the content shown between.

10. Click **Save Page**. You can now open a browser and browse to this Landing page. The URL is taken from the value that you specified for **URL Key**, as described above. For example: `/our_history` is added to the web store's URL.

11. The following steps show how to add a link to this page from the frontend's footer. Select **CMS > Static Blocks** option to display the list of existing Static Blocks.

12. Click on the **Footer Links** row to display the definition of the frontend's footer (see Figure 143).
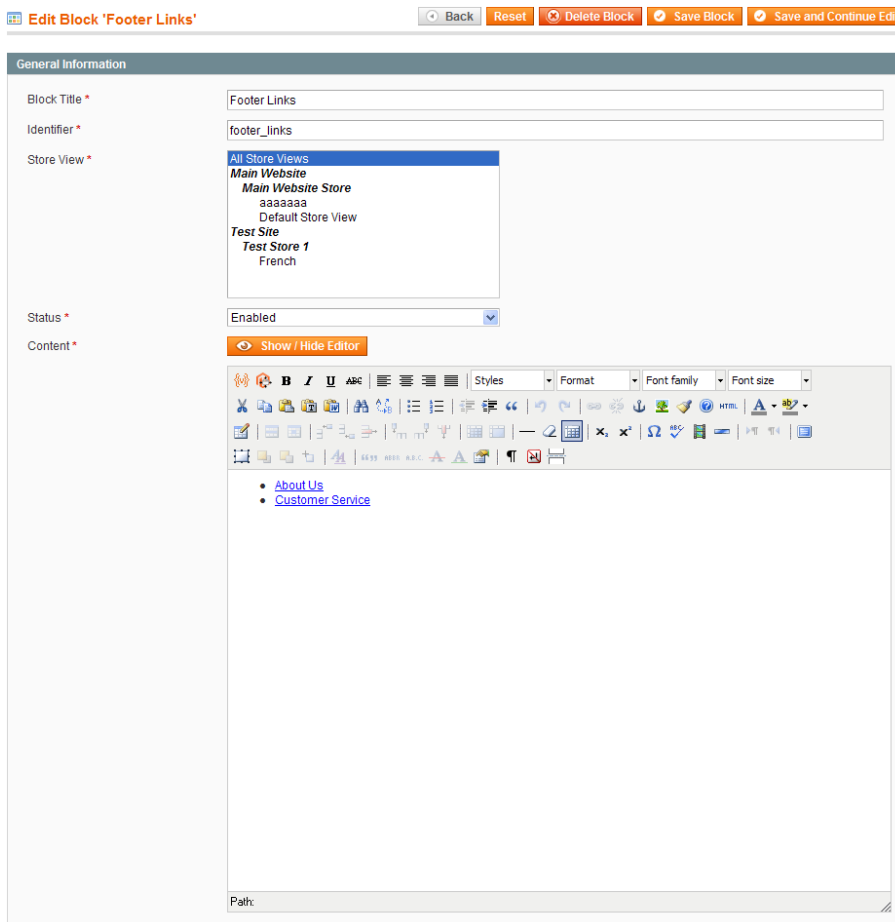
Figure 143. Editing a Static Block

13. In the **Content** field, use the WYSIWYG editor to add a link to the new page. You can do this by pressing ENTER after one of the existing links, typing the link text, selecting this text, and clicking the Link icon (   ). Use the Insert/Edit Link dialog box to specify the link attributes, as shown in Figure 144.
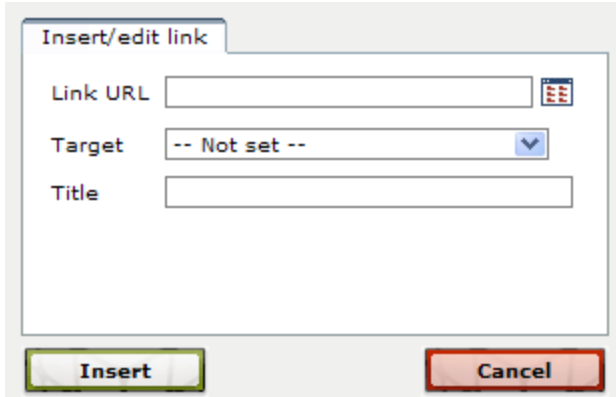
Figure 144. Insert/Edit Link Dialog Box

The footer of the frontend now appears as shown in Figure 145.
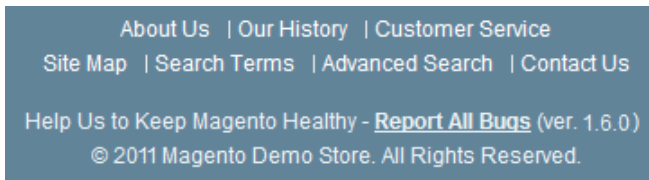
Figure 145. Updated Footer Block

14.5   WYSIWYG Editor

The Magento WYSIWYG (What You See Is What You Get) editor for CMS pages, shown in Figure 143, was embedded in Magento from TinyMCE. More information about this editor can be found at http://tinymce.moxiecode.com/.

With the **Show/Hide Editor** button, you can toggle between the WYSIWIG mode, where the style and page elements are controlled using the toolbar of buttons, and the standard HTML mode, where these elements are controlled using HTML tags. Content already in the page will also be converted automatically to match the mode. Styled content in WYSIWYG mode will reveal the tags in HTML mode, and vice versa.

❖ **WYSIWYG mode:** This mode includes numerous editing features. A few of them are described here:

  o **Insert Widget:** This button enables you to insert a Widget into the CMS page. A dialog box enables you to create the Widget to insert. You will be able to choose from any of the previously mentioned Widget Types. The options in the dialog box include the all of the options you would see in the **Widget Options** tab when creating a Widget through **CMS > Widgets**, as well as the **Template** drop-down menu from the Frontend Properties tab.

o **Insert/edit Image:** This button enables you to insert an image into the CMS page. A dialog box enables you to configure the image. Enter the image path, or (in a second dialog box) browse and select the image to insert from your server directory. If browsing, you can upload images from your computer to the directory in this window, and then select them to use in the CMS page. In the original dialog box, you can also set other information regarding the image, including description, title, styling, and mouse-over effects.

o **Insert/edit embedded media:** This button enables you to insert various types of media into the CMS page. A dialog box enables you to configure the media. Select the media type (Flash, QuickTime, Shockwave, Windows Media, or Real Media), and enter the media path, or (in a second dialog box) browse and select the media to insert from your server directory. If browsing, you can upload media from your computer to the directory in this window, and then select them to use in the CMS page. In the original dialog box, you can also set other information regarding the media, including dimensions and styling.

❖ **HTML mode:** In HTML mode, you can insert Widgets and images. The only difference is that for inserting images, you see the server directory dialog box only, and you will not be able to set the description, styling, and so on. These must be set using HTML tags.

14.6   Widgets

Widgets are configurable and reusable page blocks that allow you to display dynamic (or static) content in the frontend. For example if you wanted to display all best sellers for a specific category on the top part of the category page you can use a widget rather than custom coding that capability.

To create a new Widget:

1. Navigate to **CMS > Widgets** and click **Add New Widget** Instance.

2. You will need to select the type and theme to use to for this Widget, which cannot be changed after it has been created. The Widget type will determine which configuration options display in the Widget Options tab in the next step.

3. After clicking **Continue**, configure the Widget with the following options:

❖ **Frontend Properties:** For the most part, all Widgets types have the same options in the Frontend Properties tab. You can set the name, Store View(s), and sort order. The sort order is only relevant when two or more widgets both display in the same section of the same page. This placement is determined in the **Layout Updates** section. Click **Add Layout Update** to create a rule defining where this Widget will display. You can add multiple Layout Updates. In the **Display On** drop-down menu, select on which type of page this Widget will display. You can choose from category pages, product pages, or other specific pages. If you choose a type of category or product, you can then choose specific categories or products, respectively. If you choose a specified page, you must then choose the page (or select a format of page to use, i.e. all pages with a left column). Then, in the **Block Reference** drop-down menu, select the location on this page where the Widget will be placed. All Widget types can be placed in the left, center, or right column, but some can also be placed in the header or footer. Lastly, choose the **Template**. Some Widget types only have one template, and therefore there is no ability to select. Link Widget types and product listing Widget types will have multiple template options to choose from.

❖ **Widget Options:** The options in this tab depend on which type you initially selected.

  o **Banner Rotator:** This Widget enables you to display one or more previously created Banners. Banners are a new Magento feature which will be discussed in more depth below. From the **Banners to Display** drop-down menu, you can select if the Banners are all related to a Shopping Cart or Catalog Price Rule, in which case they will only display if the rule is active and applied. You will be able to associate a Banner with a price rule when creating the Banner. Depending on your selection from that drop-down menu, you will be able to choose which specific Banners to use. If you selected **Specified Banners**, then you will be able to choose each Banner individually from the grid below. If you chose Banners associated to a Shopping Cart or Catalog Price Rule, then you will need to select the **Banner Type** from a drop-down menu. Banner Type is set on the Banner level, and will help you ensure that the Banners will fit the Block Reference that you chose in the previous tab. From the **Rotation Mode** drop-down menu, you can select how to display the Banners if you have chosen more than one for this Widget. You can display them all at once or rotate them. If you rotate them, you can also choose if they will rotate randomly, in a series (they will rotate in order based on position), or shuffled (they will all display once in a random order, and then start over).

  o **CMS Hierarchy Node Link:** This Widget enables you to link to a CMS Node or page. Choose the Node or page by selecting it from the Hierarchy tree. Only pages which are part of the Hierarchy can be linked to using this Widget type. CMS Hierarchy is a new Magento feature, and will be discussed in more depth below. In addition to choosing the Node or page to link to, you can also customize the text of the link.

  o **CMS Page Link:** This Widget enables you to link to any existing CMS page. Choose the page by selecting it from the grid. You can also customize the text of the link.

  o **CMS Static Block:** This Widget enables you to insert an existing Static Block. Choose the Static Block by selected it from the grid.

  o **Catalog Category Link:** This Widget enables you to link to a category. Choose the category by selecting it from the category tree. You can also customize the text of the link.

  o **Catalog Events Carousel:** This Widget enables you to insert the Events Carousel. You can customize the number of Events to display at once in the Carousel, the number of Events to scroll each time the scroll arrows are clicked, and the width of the Carousel, so that it will fit into the Block Reference that you chose in the previous tab.

❖ **Catalog New Products List:** This Widget enables you to insert the new products block. Products will display in this block if the **Set Product as New From/To Date** range, configured on a per product level, includes the current date. You can customize the number of products to display at once, as well as the cache lifetime.

❖ **Catalog Product Link:** This Widget enables you to link to a product. Choose the product by selected in from the grid. The category tree allows you to filter the product results in the grid. You can also customize the text of the link.

❖ **Recently Compared Products:** This Widget enables you to insert the recently compared block. You can customize the number of products to display at once.

❖ **Recently Viewed Products:** This Widget enables you to insert the recently viewed block. You can customize the number of products to display at once.

14.7 Banners

Banners are another feature in Magento which enable you to display blocks of information on the frontend. These blocks can contain static content and Widgets. They can also be configured to display only to certain types of customers, or when certain price rules are applied.

1. To create a new Banner, navigate to **CMS > Banners**. After clicking **Add Banner**, configure the Banner with the following options:

❖ Banner Properties

  o **Banner Name:** This is for internal purposes.

  o **Active:** Only active Banners will be able to be displayed in the frontend.

  o **Applies To:** Select the Banner Type(s) from this drop-down menu. A Banner can be associated to multiple Banner Types. As previously discussed in the Widgets section, Banner Types are an internal tool to help you keep track of the page area for which a Banner is intended. This feature is needed because you may design the Banner dimensions to fit a specific space. When creating a Banner Rotator Widget, you can select the Banners to use based on Banner Type. Possible Banner Types include the header, footer, left column, right column, and main content area.

    o   **Customer Segments:** Customer Segments are a rule-based tool for dynamically segmenting customers by attributes such as purchase history, items in shopping cart and much more. You can associate a Banner to a Customer Segment to personalize your marketing and merchandising of products. To do so, select **Specified** from the drop-down menu, and highlight the desired Customer Segment(s). For more information, see "Rich Merchandising Suite (RMS)," page 377.

❖ **Content:** Enter your static HTML content in the text area. You can also insert Widgets and images into the content area. When you click **Insert Widget**, a pop-up window will allow you to create the Widget to insert. You will be able to choose from any of the previously mentioned Widget Types, except for Banner Rotator. The options in the pop-up window include all of the options you would see in the Widget Options tab when creating a Widget through **CMS > Widgets**, as well as the Template drop-down menu from the Frontend Properties tab. When you click **Insert Image**, a pop-up window will allow you select the image to insert from your media directory. You can also upload images from your computer to the directory in this window, and then select them to use in the Banner. If you are using multiple Store Views, you can create different content for each.

❖ **Related Promotions:** This tab includes one grid containing all your existing Shopping Cart Price Rules, and one grid containing all your existing Catalog Price Rules. Select the check box next to a Price Rule to associate it. You can associate this Banner to multiple Shopping Cart and Catalog Price Rules simultaneously. If the Banner is associated to any price rules, it will only appear when that rule is applied (the price rule is active and the conditions in the rule have been met). You can also associate a Banner to a Price Rule via the Price Rule page. For both Shopping Cart and Catalog Price Rules, there is now a **Related Banners** tab in the Price Rule page. This tab includes a grid containing all existing Banners, which can be associated by selecting the check box next to the Banner.

14.8   Versioning

Magento's versioning system for CMS pages enables you to create multiple versions of a page, track the revision history of each version and restore, and separate the ability to create and publish based on permissions.

❖ **Enabling Versions:** When creating a new CMS page in Magento, you will be presented with the option to enable Versioning for that particular CMS page. To enable it, select **Yes** from the **Under Version Control** drop-down menu. If **No** is selected, only one version will be saved, and there will be no ability to restore revisions.

❖ **Editing Versions**: After saving the page initially, the options presented will change. In the **Page Information** tab, the **Currently Published Revision** will display a link to the version that was just created. Even if the CMS page itself is not published yet (the **Status** is **Disabled**), the Currently Published Revision will display, and this will represent the Version and Revision that will appear as soon as the page becomes published. To access the content section and make further edits, select the **Versions** tab. Initially, there will only be one Version listed here. When you select that version, you will be redirected to a new page displaying the version options and the list of revisions for that version.

o **Version Label:** This is the name of your Version. It is for internal purposes, to help you differentiate between the content of the various Versions. When you want to create multiple Versions of the same page (for example, a seasonal Version and a regular Version), make sure to label your Versions appropriately.

o **Access Level:** This sets the permissions for accessing this version. **Private** means that only the creator of this version will be able to access it. **Protected** means that only users with Publish Revision permissions (in **System > Permissions > Roles**) will be able to access it. **Public** means all users with CMS Pages permissions will be able to access it.

o **Owner:** By default, this will be the user who created the page. The owner can be changed, which will affect access to the page if the access level is set to **Private**.

❖ Underneath these options is a grid listing all revisions to this version. Clicking on a revision here will enable you to edit the content, design, and metadata. Each time an edit is made to any revision and saved, a new revision will be created. Alternatively, you can **Save in New Version**, which will create a new Version (in which this will be the first Revision) instead of saving this as a new Revision to the current Version.

❖ **Publishing Versions:** In order to publish a page, you must select the desired Revision of the desired Version, and click **Publish**. If you are currently making edits to this Revision, the Publish button will instead read **Save and Publish**, which will simultaneously create a new Revision and publish the page. This published Version and Revision will now appear under the **Currently Published Revision** link in the Page Information tab (you may need to click Back once or twice to arrive here). Make sure that the **Status** is set to **Published** for the page to be visible on the frontend.

14.9   Hierarchy

The CMS Hierarchy feature is a categorization tool for CMS pages, enabling users with no technical knowledge to create complex content pages and sections of content such as Articles, a Knowledge Base, and more. The advantage to categorizing your CMS pages is that you will then be able to display automatically generated menus and/or pagination, to enable your customers to browse through the pages easily.

1. To access the CMS Hierarchy, navigate to **CMS > Pages > Manage Hierarchy**.

Note: *In Magento EE 1.11 and earlier, the Hierarchy can be managed per Store View only. In Magento EE 1.12 and later, hierarchies can be managed on both, website and store view levels .*

❖ **Adding Nodes and pages** - On the left side of the page will be the hierarchy tree. You can add nodes and pages to this tree. Nodes are used solely as folders to group child nodes and/or pages. Nodes cannot be viewed on the frontend. If customers visit a Node on the frontend, they will automatically be redirected to the first page under that node. Pages can be viewed on the frontend, but they can also be used as folders to group child nodes or pages. To add a node to the tree, click **Add Node** on the right of the tree. The node will be added to whatever folder (whether Node or page) is currently highlighted. To add a page or pages to the tree, select them from the grid below, and click **Add Selected Page(s) to Tree**. The page(s) will be added to whatever folder is currently highlighted. A page can only be added to a folder once, so it will become inactive in the grid below when that folder is highlighted. However, pages can be added to multiple folders.
In Magento EE 1.12 and later, you can perform mass actions on hierarchies. To copy or delete a hierarchy, click the Manage Hierarchies on the left, select one or more hierarchies, and click **Copy Hierarchy To** or **Delete Hierarchy From**. Clicking **Copy Hierarchy To** copies the currently displayed hierarchy tree to the selected websites/store views.

❖ **Node and page options:** When a node or page is highlighted, you will be able to edit the option on the right of the tree.

   o **Properties**: Here you can edit the title and URL key. They can only be edited for Nodes, because the title and URL key for pages are set in **CMS > Pages > Manage Content**. You can also preview the frontend. When previewing nodes, you will be redirected to the first page under that node.

   o **Render Metadata in HTML Head:** This section will only appear for top level nodes and pages. It is used for SEO purposes to define the structure of the hierarchy

   o **Pagination Options for Nested Pages:** This section will appear only if child nodes or pages have been created under the currently highlighted node or page. They will control the pagination for the immediate child nodes or pages only (that is, pagination options for a top level node or page will control first-level child nodes and pages; pagination options for a first-level child node or page will control second-level child nodes and pages; and so on). If pagination is enabled, then links to the previous and upcoming pages will appear above and below the page content on the frontend. They will link to the other "sibling" pages. You can also control the number of page links to display at once.

   o **Page Navigation Menu Options:** If the navigation menu is enabled, then a menu similar to the category tree will appear on the frontend, above the page content. For each node, you can control the number of parent and child levels to display in the menu, as well as the list options for the menu (such as numbered list, bulleted list, and so on).

o **Main Navigation Menu Options** (available in Magento Enterprise 1.12 and later)**:** For nodes and pages of the first (root) level, the section contains the **Show in Navigation Menu** field, where you can decide if the node will be included in the category menu in the frontend. If you select **Yes**, the node, with all child pages and nodes, will be displayed in the category menu. For nested pages and child nodes, the section contains the **Exclude from Navigation Menu** field, where you can choose to exclude the page or child node from the category menu, even if the parent root node is displayed there.

Hierarchy can also be managed on the CMS pages themselves. To do so, select a page and click the **Hierarchy** tab in the left column. The hierarchy tree will be displayed, with a check box next to each node and page. You can associate this CMS page to multiple nodes or pages.

14.10 Customizing Transactional Emails

Transactional emails are all emails sent from a Magento store. Magento offers flexible, easy-to-use functionality to enable you to customize these emails and translate them into multiple languages to best use them for communication with your customers.

This section describes how to modify the emails that are sent from the web store, for example, when an account is created or an order is placed.

To customize a transactional email template:

1. Select **System > Transactional emails** to display a list of the custom email templates created in this web store.

   Note: *This page shows only customized emails. If this page is empty, it means that Magento will only send standard default emails.*

2. Click the **Add New Template** button to display the New Email Template page. See Figure 146.

Figure 146. New Email Template Page

3. In the **Template** field, select the name of one of the transactional emails that you want to customize, such as **New account**.

4. In the **Locale** field, select the language.

5. Click **Load Template**.

6. In the **Template Name** field, specify a name for the customized email template.

7. If desired, modify the **Template Subject** field.

8. In the **Template Content** area, use the WYSIWIG editor to modify the content. You must change the contact phone number and email address as well as the logo image reference at the top of the page to reflect your own store information in all active templates.

9. Click the **Save Template** button.

10. Now that your customized email template is ready and available, the next step is to inform Magento that it should use this template to send email to customers instead of the default template. This is controlled in various configuration sections depending on the type of email.

In our example of customizing a New Account email, select **System** > **Configuration** > **Customers** > **Customer Configuration**. Then expand the **Create New Account Options** section and select your newly customized transactional email in the **Default Welcome Email** field.

15 Taxes

Magento provides a variety of options for defining taxes that can be accessed by selecting the **Sales** menu and then the **Tax** option. Tax classes are used to define "tax rules." Tax rules are defined as a combination of a Product Class, a Customer Class and a Tax Zone and Rate, as described below.

Each type of customer can be assigned a customer class when you define them, and each product is assigned a tax class. For a description of how to define a customer, see "Managing Customers," page 315. For a description of how to define a product, see "Creating a New Product," page 80.

Magento analyzes the shopping cart of each customer and calculates the appropriate tax according to the class of the customer, the class of the products in the shopping cart, and the region (as defined by the customer's shipping address, billing address or shipping origin).

Magento also supports the calculation of Value-Added Tax (VAT) for business-to-business transactions in the European Union. For more information, see "VAT ID Validation," page 476.

15.1 General Taxation Settings

To configure general taxation settings:

1. From the **System** menu, select the **Configuration** option.

2. From the **SALES** section in the panel on the left, select **Tax**.

3. Expand the **Tax Classes** section, and in the **Tax Class for Shipping** field, specify the tax class charged on the shipping amount, as shown in Figure 147. With Sample Data populated, we have added three examples of tax classes for Shipping. If your store changes additional tax on shipping expenses then you should designate the product tax class that will apply to shipping.
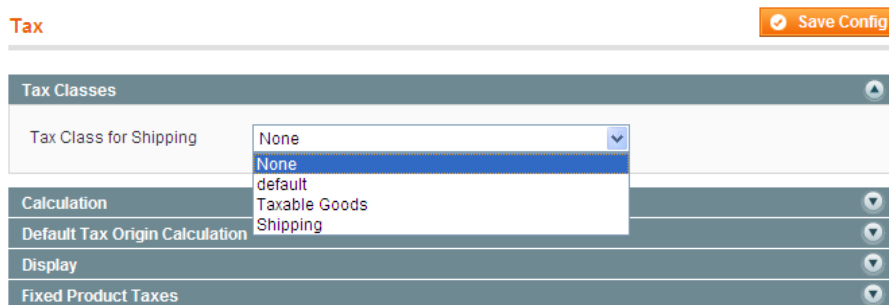
Figure 147. Tax Class for Shipping

4. Expand the **Calculation Settings** section, as shown in Figure 148.

Figure 148. Tax Calculation Settings

5. In the **Tax Calculation Method Based On** field, select whether the tax is based on the price of each unit, or on the "row total" (that is, the total for a line item in the order, accounting for any discounts).

6. In the **Tax Calculation Based On** field, select whether the tax is calculated based on the customer's shipping address, billing address, or your store's shipping origin.

7. In the **Catalog Prices** field, specify whether the catalog prices of items include tax or exclude tax.

8. In the **Shipping Prices** field, select whether the shipping amounts include tax or exclude tax.

9. In the **Apply Customer Tax** field, select whether tax is applied to the original or discounted price.

10. In the **Apply Discount on Prices** field, select whether any discounts applied include the tax or exclude it.

11. In the **Apply Tax On** field, select whether tax is applied to custom prices or to original prices.

12. Expand the **Default Tax Origin Calculation** section to specify which country is used by Magento as the default for tax calculation, as shown in Figure 149.

Figure 149. Default Tax Origin Calculation

Note: If you set the ***Display Product Prices*** *field to* ***Including Tax*** *in the* ***Display*** *section described below, then the tax is only displayed if there is a tax rule that matches the tax origin or if Magento detects that the customer address matches the tax rule (which happens after a customer creates an account, logs in, or uses the Tax and Shipping estimation tool in the cart).*

13. Expand the **Price Display Settings** tab to select whether display prices for products and shipping include tax or exclude tax.

14. Expand the **Display** section to select how taxes and prices are shown for products and in a shopping cart according to the requirements (legal and otherwise) of your store, as shown in Figure 150.

Figure 150. Shopping Cart Tax Display Settings

15. Expand the **Orders, Invoices, Credit Memos Display Settings** tab to select how prices and taxes are displayed in orders, invoices, and credit memos.

16. Expand the **Fixed Product Taxes** tab to specify the behavior of fixed per product taxes, such as the European DEEE/WEEE (**Waste Electrical and Electronic Equipment**) tax, according to the requirements for your store and products.

*Note: To assign a fixed tax to a product, create an attribute with the **Catalog Input Type for Store Owner** set to **Fixed Product Tax**, and assign this attribute to the attribute set for the product.*

15.2   Product Tax Class

You create product tax classes and assign products to them depending on the type of product. For example, food might not be taxed (or might be taxed at a different rate).

To define a product tax class:

1. Select **Sales > Tax > Product Tax Class** to display the Product Tax Classes page (Figure 151), which shows a list of the previously defined product tax classes.

Figure 151. Product Tax Classes Page

2. Click the **Add New** button to display the New Class page, as shown in Figure 152.

Figure 152. New Product Tax Class Page

3. In the **Class Name** field, specify a name for this tax class.

> Note: *You can apply a tax class to a product by editing the product and choosing the appropriate option on the* **Prices** *tab.*

4. Click **Save Class**.

15.3   Customer Tax Class

You create customer tax classes and assign customers to them depending on the type of customer. For example, in some jurisdictions, wholesale transactions are not taxed but retail transactions are.

To define a customer tax class:

1. Select **Sales > Tax > Customer Tax Classes** to display a list of the previously defined customer tax classes.

2. Click the **Add New** button to display the New Class page, as shown in Figure 153.

Figure 153. New Customer Tax Class Page

3. In the **Class Name** field, specify a name for this tax class.

> Note: *You can link a customer tax class to a customer group by editing the customer group. You can then assign this customer group when creating or editing a customer.*

4. Click the **Save Class** button.

15.4   Tax Zones and Rates

Tax rates are generally applicable to transactions that take place in specific geographical areas. The Tax Zones and Rates feature enables you to specify the tax rate for each geographical area for which you collect and remit taxes. Because you give each tax zone and rate specification a unique identifier, you can have multiple tax rates for a given geographic area (for example, for places that do not tax food or medicine but tax other products).

To define tax zones and rates:

1. Select **Sales > Tax > Manage Tax Zones and Rates** option to display a list of the previously defined tax zones and rates.

Figure 154. Manage Tax Rates Page

2. Click **Add New Tax Rate** to display the Add New Tax Rate page, as shown in Figure 155.

Figure 155. Add New Tax Rate Page

3. In the **Tax Identifier** field, specify a unique name for this tax. Do not use spaces. This identifier is not shown in the frontend if the **Tax Titles** section is filled in, as described below.

4. Select the location by using the **Country** and **State** drop-down menus.

5. For **Zip/Post is Range**, select whether the Zip or postal code specification needs to be expressed as a range of codes or an individual code.

   ❖ If you select **No**, specify the Zip or postal code in the **Zip/Post Code** field. You can use the * wildcard character in this field; for example, 90* means all Zip codes form 90000 through 90999.

   ❖ If you select **Yes**, specify the starting and ending Zip or postal codes in the **Range From** and **Range To** fields.

6. In the **Rate** field, specify the percentage of tax.

7. In the **Tax Titles** section, specify a name of this tax for each store view.

8. Click the **Save Rate** button.

15.5   Tax Management Rules

Tax management rules put all the taxation elements together: product tax classes, customer tax classes, and tax zones and rates.

To define Tax Management Rules:

1. To define how taxes are charged, select **Sales > Tax > Manage Tax Rules** to display a list of the previously defined tax rules, as shown in Figure 156.

Figure 156. Manage Tax Rules Page

Each tax rule is composed of a customer tax class, a product tax class, and a tax rate.

2. To define a new tax rule, click **Add New Tax Rule** to display the Edit Rule page, as shown in Figure 157.

Figure 157. Edit Rule Page

3. Select a **Customer Tax Class, Product Tax Class** and **Tax Rate** for this rule. This rule defines that the tax rate you select is applied to the customers in the selected customer tax class and the products in the selected product tax class.

4. In the **Tax Priority** field, specify the priority of this tax, when more than one tax applies. If two tax rules with the same priority apply then the taxes are added together. If two taxes with a different priority apply then the taxes are compounded.

5. The **Sort Order** field enables you to specify the order in which tax rules are displayed on the Manage Tax Rules page.

6. Click **Save Rule** or **Save and Continue Edit** to save your changes.

Tip: When numerous taxes must be defined, you can ease the process by importing them from a spreadsheet. Select **Sales > Tax > Import/Export Tax Rates**.

16 Shipping

A variety of shipping methods are available for selection in Magento. This section describes a few of these shipping rate options for your web store.

16.1   General Shipping Settings

To configure general shipping settings:

1. Select **System > Configuration > Shipping Settings**.

2. Expand the **Origin** section and specify the address used for shipping calculations. Typically, this is the warehouse address from which products are shipped, as shown in Figure 158.

Figure 158. Shipping Origin Settings

3. Expand the **Options** section, as shown in Figure 159.

Figure 159. Shipping Options Settings

4. In this section, enable or disable shipping to multiple addresses. Shipping to multiple addresses is very useful for stores that sell gifts. It enables customers to send various parts of an order to different destinations.

5. Click **Save Config** to save your changes.

16.2   Flat Shipping Rates

A flat shipping rate refers to a fixed predefined cost for shipping which can be applied per item or per shipment, according to your preferences.

To define flat shipping rates:

1. Select **System > Configuration > Shipping Method**.

2. Expand the **Flat Rate** section to define a fixed predefined amount for shipping, as shown in Figure 160.

Figure 160. Flat Rate Shipping Settings

*Tip: Magento also provides the option to specify table rates by expanding the **Table Rates** section. This feature enables you to define shipping rates by weight, destination, price, the number of items and various combinations of these categories. The table rates are entered by importing a CSV file. See http://www.magentocommerce.com/knowledge-base/entry/how-do-i-set-up-table-rate-shipping for more information.*

3. In the **Enabled** field, select **Yes**. The flat rate method then appears as an option in the shopping cart and on the shipping page during the checkout.

4. The contents of **Title** and **Method name** fields appear in the frontend as shown in Figure 161.

Figure 161. Flat Rate Shipping Method and Title

> *Note: Some Shipping Methods, such as UPS, provide a variety of shipping methods to choose from.*

5. In the **Type** field, specify the entity to which the shipping fee applies, such as **Per Item**. In this case, the shipping fee is dependent on the number of items shipped. If you set the rate to be per item, it is multiplied by the total quantity of items in the shopping cart. If you have two of the same item or two different items, then the rate is the same. You can also select **Per Order** in this field.

6. In the **Ship to applicable countries** field, you can select the **Specific Countries** option to enable access to the field under it in which you can select specific countries, so that the appropriate (and different) shipping rates are applied to the relevant countries, as shown in Figure 162.

Figure 162. Specific Countries Selection

> *Tip: Hold down the Ctrl key while clicking options to select multiple countries.*

7. In the **Sort Order** field, specify the position of this shipping method in relation to the other shipping methods offered to the customer.

16.3   Online Rates

Apart from static options such as flat rates and table rates, Magento also offers dynamic retrieval of rates from various shipping providers.

To enable and configure these shipping methods, expand the appropriate tabs (**UPS**, **USPS**, **FedEx**, or **DHL**) and configure the settings. The configuration of this method is similar to the configuration of a Flat Rate, as described above. The exact options depend on the service provider; contact the provider for more information.

For example, UPS rates can appear in your web store as shown in Figure 163.

Figure 163. UPS Shipping Options

16.4   Offering Free Shipping

Tip: *Free shipping per product can be defined as a shopping cart price rule. See "Catalog and Shopping Cart Price Rules," page 274, for more information. This option enables you to set up free shipping that is valid only when a customer provides the appropriate discount code.*

To define free shipping:

1. Select **System > Configuration > Shipping Methods.**

2. Expand the **Free Shipping** section to enable free shipping with optional minimum order amount, as shown in Figure 164.

Figure 164. Free Shipping Settings

3. In the **Enabled** field select **Yes** to enable the method.

4. In the **Minimum order amount** field specify the amount for an order over which shipping is provided free of charge.

5. In the **Ship to applicable countries** field, you can select the **Specific Countries** option to enable access to the field under it in which you can select specific countries, so that free shipping is only applied to the relevant countries or you can select the **All Allowed Countries** to specify that free shipping is available for users from all countries.

16.5   Acquiring Additional Shipping Modules

Numerous other shipping modules are provided at http://www.magentocommerce.com/magento-connect and new ones are uploaded often. More information on installing shipping extensions is provided in "Extending Magento," page 344.

17 Shipping Integration with Label Printing Support

This chapter describes how you can create shipments with major shipping service providers and print shipping labels directly in the Magento Admin Panel.

This feature was introduced in Version 1.11 of Magento Enterprise Edition.

17.1 Terminology List

The following terminology is used in reference to this feature:

❖ **International shipments:** Shipments where the sender and recipient are in different countries; international borders are crossed.

❖ **Domestic shipments:** Shipments where the sender and recipient are in the same country; no international borders are crossed.

17.2 Shipping Integration – General Concept

Magento Enterprise Edition includes a higher level of integration with several major shipping carriers, which includes creating shipping labels, creating shipment orders in the shipping carrier systems, and automatic tracking number entry in the Magento Admin Panel.

The shipping labels feature is supported for the following shipping service carriers:

❖ UPS

❖ USPS

❖ FedEx

❖ DHL

Shipping labels can be created in the Magento Admin Panel from the shipments pages, and from the Return Merchandise Authorization (RMA) managing pages. For details about RMA implementation, see Return Merchandise Authorization," page 178.

When you choose to create a shipping label, Magento prompts you to specify the information about packages you want to use (type, size, etc.) and its contents (which products go to which packages). When you finish, Magento connects to the shipping carrier web-services, creates an order in its system, and receives the shipping label for the shipment. The tracking number(s) are also received and added in the Admin Panel.

> **Note**: *An individual shipment order for each package is created, as a result multiple shipping labels can be received for one shipment in Magento.*

17.3 Configuring Store Address and Shipping Method Settings

The following configuration fields (at the product level, in the shipping settings, and in the shipping methods settings) support the shipping integration and label printing functionality:

❖ On the product level

Option	Description
Country of Manufacture	Mandatory for USPS and FedEx international shipments.

❖ In the shipping settings under **System > Configuration > Shipping Settings > Origin**

Option	Description
Street Address	The street address of the place from which your shipments will be sent (that is, the location of your company or warehouse).
	Mandatory for shipping label creation.
Street Address Line 2	Specify any possible address details here, like floor, entrance and so on. We strongly recommend that you use this field.

❖ In the shipping methods settings under **System > Configuration > Shipping Methods > USPS**

Option	Description
Secure Gateway URL	You do not need to configure this field, it is pre-populated by Magento.
Password	A password for enabling shipment order creation in the shipping carrier system using web-services. You must acquire this password from the shipping carrier.
Length, Width, Height, Girth	The default dimensions of the package. These fields appear if you select **Large** option in the **Size** field.

❖ In the shipping methods settings under **System > Configuration > Shipping Methods > FedEx**

Option	Description
Meter Number, Key, Password	These credentials are required for enabling shipment order creation in the shipping carrier system using web-services. You must acquire this information from the shipping carrier

Also, ensure that you have specified the store information under **System > Configuration > General > Store Information**. If these options are not set, Magento will not proceed with shipping label creation, and an error message will be displayed.

We also strongly recommend that you configure all shipping method settings under **System > Configuration > Shipping Methods** for each shipping carrier that you want to use for shipping label creation.

17.4   Creating and Printing Shipping Labels

You can decide to create a shipping label while creating the shipment in the Magento Admin Panel, or later, when the shipment already exists.

To create a shipping label at the shipment creation stage:

1. Select **Sales**, and click **Orders**.

2. Open your order for editing.

3. Click the **Ship** button in the upper right corner of the order view. The New Shipment page opens.

4. Configure the shipment, select the **Create Shipping Label** check box above the **Submit Shipment** button, and click **Submit Shipment**. The **Create Packages** pop-up window appears.

5. In the **Create Packages** pop-up window, add the packages, distribute all shipped products among the packages, and click **OK** (for details, see "Creating Packages in the Create Packages Pop-Up Window," page 173). This is a required step for creating a shipping label. If you click **Cancel**, the shipping label will not be created and the **Create Shipping Label** check box will be cleared.

6. Magento connects to the shipping carrier, creates the order in its system, and receives a shipping label and tracking number for each package. If a shipping label is successfully created, the new shipment is saved and the shipping label is available for printing. A tracking number is displayed in the Shipping and Tracking Information section. If the shipping label cannot be created due to problems with connection or any other reason, the shipment is not created.

To create a shipping label for an existing shipment:

1. Open a shipment for editing.

2. Click the **Create Shipping Label** button in the Shipping and Tracking Information section. The **Create Packages** pop-up window appears.

3. In the **Create Packages** pop-up add packages, distribute all shipped products between packages and click **OK** (for details, see "Creating Packages in the Create Packages Pop-Up Window," page 173).

> *Note: This is a required step for creating the shipping label. If you click **Cancel**, the shipping label is not created.*

4. Magento connects to the shipping carrier, creates the order in its system, and receives a shipping label and a tracking number. If a shipping label for this shipment already existed in the system, it is replaced with a new one. Existing tracking numbers are not replaced. The new received tracking numbers are added to the existing ones.

The information about created packages and their contents is saved in the system. To view the information, click the **Show Packages** button located next to the **Print Shipping Label** button.

If you create shipping labels multiple times, the Show Packages window reflects the most recent package configuration.

To print a shipping label:

1. Open the shipment for editing.

2. Click the **Print Shipping Label** button in the Shipping and Tracking Information block of the shipment view. See Figure 165.

Figure 165. Shipping Labels Related Controls on the Shipment Page

Shipping labels are stored in PDF format. When you click the **Print Shipping Label** button, the PDF file is downloaded. If your browser settings allow it, you can open the file at once, and print the shipping labels. Each shipping label is placed on a separate page in the PDF file.

In addition to the usual information each shipping carrier adds to a shipping label, it will contain the Magento order number, number of the package, and the total quantity of packages for the Magento shipment. For all shipping labels created from Magento for DHL, FedEx, and UPS shipments, the "Type of Goods" field of a shipping label will have the value "Merchandise." For USPS, it will contain the value that is specified in the **Contents** field in the **Create Packages** pop-up window.

*Note: If the **Print Shipping Label** button is not displayed, it means the shipping label has not been created for this shipment yet. You need to click the **Create Shipping Label** button first. If Magento succeeds in receiving the shipping label from the shipping service carrier, then the **Print Shipping Label** button will be displayed.*

Creating Packages in the Create Packages Pop-Up Window

This section describes the **Create Packages** pop-up window, how packages are created, and how products are distributed between packages.

The **Create Packages** pop-up window appears if you choose to create a shipping label. You can start configuring the first package at once.

To configure a package:

1. Specify the following:

Option	Description
Type	The type of a package. Select one of the predefined values. Available package types are different for each shipping carrier, and also depend on the shipping method selected during order creation. To see the complete list of shipping methods and their supported packages implemented in Magento, see "Shipping Methods and Package Types Available in Magento," page 472.
	When the **Create Packages** pop-up window opens, the default package for the shipping carrier set in system configuration is selected in the **Type** field.
	If you select a package, which is not designed by a shipping carrier, you will need to specify the dimensions of the package.
	This field is unavailable for USPS domestic shipments, because specifying package types is not necessary for these shipments.
Total Weight	The total weight of a package. The field is pre-populated with the total weight of products in a package, after you add them, but can be edited manually. The measurement units can be specified using the drop-down menu next to the field; select between pounds and kilograms.
Length	The length of a package, integer and floating point numbers. The field is enabled if the custom package type is used. The measurement units can be specified using the drop-down menu next to the **Height** field; select between inches and centimeters.
Width	The width of a package, integer and floating point numbers. The field is enabled if the custom package type is used. The measurement units can be specified using the drop-down menu next to the **Height** field; select between inches and centimeters.
Height	The height of a package, integer and floating point numbers. The field is enabled if the custom package type is used. The measurement units can be specified using the drop-down menu next to the **Height** field; select between inches and centimeters.
Signature Confirmation	Defines delivery confirmation. Possible values: • **Not Required** – no delivery confirmation letter is sent to you. • **No Signature** – a delivery confirmation letter without a recipient's signature is sent to you. • **Signature Required** – the shipping carrier obtains the recipient's signature and provides you with its printed copy. • **Adult Required** – the shipping carrier obtains the adult recipient's signature and provides you with its printed copy. • **Direct** (FedEx only) – FedEx obtains a signature from someone at the delivery address and reattempts delivery if no one is available to sign for the package.

Option	Description
	• **Indirect** (FedEx only) – FedEx obtains a signature in one of three ways: (1) from someone at the delivery address; (2) from a neighbor, building manager or other person at a neighboring address; or (3) the recipient can leave a signed FedEx Door Tag authorizing release of the package without anyone present. Available for residential deliveries only. The field availability and options may vary slightly for different shipping methods. For the most up to date information please refer to shipping carrier's resources.
Contents **(available for USPS shipments only)**	Description of the package contents. Select from the following: • **Gift** • **Documents** • **Commercial Sample** • **Returned Goods** • **Merchandise** • **Other**
Explanation **(available for USPS shipments only)**	Detailed description of the package content.

> *Note: If you select the non-default value in the **Type** field or choose to require a signature confirmation, the price of a shipment may differ from the one you charged to the customer.*

2. To view a list of shipped products and add them to the package, click the **Add Products** button. The grid with the list of the shipped products appears. The Qty column is pre-populated with the maximum available quantity to add (for the Package 1 this number is equal to the total shipped quantity of the product).

3. Specify the products and quantities. To add the products to the package, click the **Add Selected Product(s) to Package** button in the header of the grid. The products are added to the package.

To add a new package, click the **Add Package** button in the window header.

You can add several packages, and edit them simultaneously.

To delete a package, click the **Delete Package** button.

Changing Product Quantities in an Existing Package

After the products are added to the package, their quantity cannot be edited directly. To increase the quantity of the product in the package, click the **Add Selection** button, and specify the additional quantity. This number will be added to the previous quantity of the product in the package. To decrease the quantity, delete the product from the package, click **Add Selection**, and specify the new, smaller value.

After you distribute all products, the total number of the packages you are going to use is equal to the number of the last package in the list.

The **OK** button is disabled until all shipped items are distributed between packages and all necessary information is specified. After you finish creating packages and distributing the products, click **OK**. Magento starts the shipping label generation process.

If you click **Cancel**, your packages are not saved and shipping label creation is canceled.

Printing Shipping Labels for Multiple Orders

Printing shipping labels is available as mass action on the Orders and the Shipments pages.

To print shipping labels for the shipments of multiple orders:

1. Select **Sales**, and click **Orders**. The Orders page opens.

2. Using the check boxes in the left column, select the desired orders.

3. In the **Actions** drop-down menu, select **Print Shipping Labels**.

4. Click the **Submit** button.

Shipping labels will be printed for all shipments that are related to the selected orders, for which shipping labels have already been created.

Similarly, the **Print Shipping Labels** mass action is available on the Shipments page (see Figure 166). To open the Shipments page:

❖ On the Magento top menu navigate to **Sales** > **Shipments**.
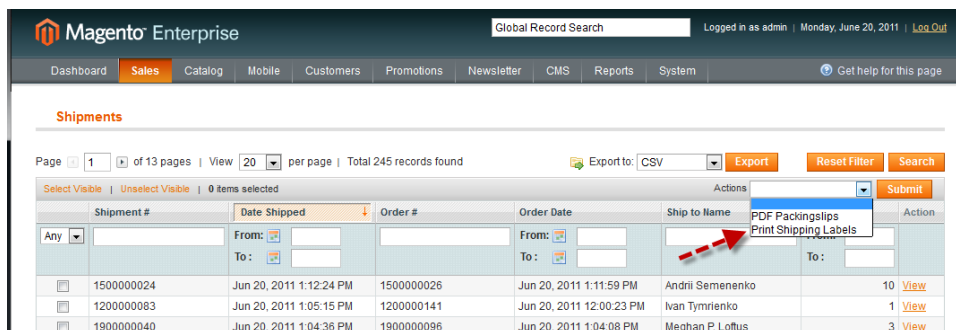
Figure 166. "Print Shipping Labels" Mass Action

Tracking Numbers

Together with shipping labels, Magento receives the tracking numbers related to the shipment. The tracking numbers are inserted in the Shipping and Tracking Information section. When you create shipping labels multiple times, previous tracking numbers are not deleted.

Note: *The logic for tracking numbers is different when shipping labels are created for merchandise returns from RMA managing pages: old tracking numbers are replaced with new ones in this case.*

17.5   Shipping Integration Implementation Features

Shipping integration in Magento has the following constraints:

- ❖ DHL: Due to carrier limitations, shipping labels can be created for U.S. originating shipments only.

- ❖ FedEx: For non-U.S. stores, creating labels is possible for international shipments only. (FedEx does not allow domestic shipments originating outside the U.S.)

- ❖ UPS: Creating labels is currently possible for U.S. originating shipments only (specific credentials are required for non-U.S. stores).

18 Return Merchandise Authorization (RMA)

This chapter describes how merchandise returns can be processed in Magento Enterprise Edition using the Return Merchandise Authorization (RMA) feature.

This feature was introduced in Version 1.11 of Magento Enterprise Edition.

18.1 RMA – General Concept

The general workflow of RMA processing is the following:

1. A store customer places an RMA request. Both logged in and non-logged in customers can create requests. You can create a request in the Admin Panel as well.

2. You consider the request. You can authorize (preapprove) it partially, or completely, or cancel. If you authorize the return and agree to pay for the return shipment, you can create the shipment order with one of the supported shipping carriers, right from the Admin Panel.

3. The customer sends back the merchandise.

4. You approve the return partially or completely, or cancel it.

With the RMA feature, you can process returns for the following product types:

❖ Simple

❖ Grouped

❖ Configurable

❖ Bundle

Virtual products, downloadable products, and gift cards cannot be processed.

You can choose to disable the RMA functionality for all products on the frontend, or configure only certain products to be unavailable for returns.

> *Note: To ensure that RMA functionality works correctly, in Magento Enterprise Edition, starting from version 1.11, it is strongly recommended that you **not** create refunds, without creating and completing the corresponding RMA request. Otherwise, available quantities of the products may be counted incorrectly.*

18.2 Configuring the RMA Feature

Unless the whole RMA module is disabled, creating RMA requests is always available in the Admin Panel. Allowing store customers to use the RMA functionality is optional and can be configured.

To enable and configure the RMA functionality:

1. Select **System** and click **Configuration**.

2. In the **Current Configuration Scope** drop-down menu in the upper-left corner of the page, select the desired website.

3. Under SALES in the left column, click **Sales**.

4. In the **RMA Settings** field set, the following options are available:

Option	Description
Enable RMA on Frontend	Defines whether store customers can create and view RMA requests. The default value is **No**. Can be configured for each store view. Applied to both new and existing orders.
Enable RMA on Product Level	Defines the default value for the **Enable RMA** field on product pages. Can be set for each store view.
Use Store Address	Select which address and contact name is used for return merchandise shipments. If you select **Yes**, the address set under the **System** > **Configuration** > SALES > **Shipping Settings** > **Origin** is used. If you select **No**, the address fields below become available, and you can specify an alternate address. Regardless of the value selected, the store name and the store contact telephone, necessary for shipping label creation, are taken from the configuration settings under **System** > **Configuration** > **General** > **Store Information**.
Contact Name (available if **Use Store Address** is set to No)	The name of the store contact person.
Street Address (available if **Use Store Address** is set to **No**)	Specify the street address for a store address, which is used for returned merchandise shipments.
City (available if **Use Store Address** is set to **No**)	Specify the city for a store address, which is used for returned merchandise shipments.
State/Province (available if **Use Store Address** is set to **No**)	Specify the state/region for a store address, which is used for returned merchandise shipments.
ZIP/Postal Code	Specify the ZIP/postal code for a store address, which is used for returned merchandise shipments.
Country	Specify the country for a store address, which is used for returned merchandise shipments.

5. To save the configuration, click the **Save Config** button in the upper-right corner of the page.

> *Note*: *If all items in the order are configured to be not available for return, the RMA request cannot be created for this order on the frontend, nor in the Admin Panel.*

18.3   Configuring RMA at the Product Level

Availability for RMA for separate items can be configured using the **Enable RMA** system attribute. This system attribute is available for simple, grouped, configurable, and bundle products.

The **Enable RMA** attribute is available on the **General** tab of the product view. By default, it is set to **Use Config** and configuration settings are applied. If you set it to **No**, the product will not appear in the list of items available for return, in both frontend and backend returns.

Changes of the **Enable RMA** attribute value are applied to the products in the already existing orders as well.

18.4   Configuring RMA Emails

You can configure Magento to send email notifications to a customer at different stages of RMA processing.

To enable and configure RMA email notifications:

1. Select **System**, and click **Configuration**.

2. Under SALES in the left column click **Sales Emails**.

3. Expand the **RMA** field set. The fields on the **RMA** field set configure the emails sent to the customers upon RMAs creation. The following options are available:

Option	Description
Enabled	Select **Yes** to send email notifications upon RMA creation (RMA email). If you set **Enabled** to **No**, you can still choose to send the notification, when creating an RMA request in the Admin Panel.
RMA Email Sender	Specify the email address that is used as the RMA email sender.
RMA Email Template	Select a template for the RMA email. Custom templates can be created under **System** > **Transactional Emails**.
RMA Email Template for Guest	Select a template for the RMA email in case the return was created by a non-logged in customer. Custom templates can be created under **System** > **Transactional Emails**.
Send RMA Email Copy To	The email address to which a copy of RMA email is sent.
Send RMA Email Copy Method	Specify the copy sending method for the RMA email. Select between **Bcc** and **Separate Email**.

> **Note:** *If you select the **Use Website** check box near the option, the settings made on the website level (that is, in the **Current Configuration Scope** your website is selected) are used.*

4. The **RMA Authorization**, **RMA Admin Comments** and **RMA Customer Comments** field sets contain similar options for other RMA email notifications. The **RMA Authorization** field set configures the email notifications that are sent to customers after RMA requests are authorized by the store administrator.

   The **RMA Admin Comments** and **RMA Customer Comments** field sets configure the email notifications sent to the customer when comments are added to the RMA requests by customers and the store administrator, respectively.

5. To save the configuration, click the **Save Config** button in the upper-right corner of the page.

18.5   Enabling Shipping Methods for Return Shipments

Magento Enterprise Edition includes a higher level of integration with UPS, USPS, DHL, and FedEx. This integration can be used for return products shipments as well. If you decide to authorize a return, you can create a shipment order in a shipping carrier system and print a shipping label from the RMA management section of the Magento Admin Panel.

To enable shipping methods to be used for RMA:

1. Select **System > Configuration**.

2. In the **Current Configuration Scope** drop-down menu in the upper-left corner of the page select the desired website.

3. In the left column under SALES click **Shipping Methods**.

4. In the field set for the desired shipping carrier (UPS, USPS, FedEx, DHL), in the **Enabled for RMA** field select **Yes**.

5. To save the configuration, click the **Save Config** button in the upper-right corner of the page.

Using the shipping integration functionality requires store address and shipping methods settings to be carefully configured. See "Shipping Integration with Label Printing Support," page 170 for information about shipping integration settings.

For details about creating shipping orders and shipping labels for RMA shipments, see "Return Shipments," page 191.

18.6   Creating and Managing RMA Item Attributes

The RMA item attributes are properties of the return items. There are four system attributes related to RMAs: **Resolution**, **Item Condition**, **Reason to Return** and **Other**. These fields are filled in by a customer when an RMA request is created, and can be later edited by a backend user. If you want customers to specify other information, you can create other item attributes. You can also change the existing options for the system attributes. See Figure 167.

Figure 167. Items Attribute Fields on the New Return Page on the Frontend

To manage the RMA item attributes, select **Sales** > **RMA** > **RMA Item Attributes**.

You can create, edit and delete RMA item attributes. Working with RMA item attributes is similar to working with attributes of products.

18.7   Placing an RMA Request on the Frontend

RMA requests can be created only for shipped orders (at least one shipment created). Both account-holding and guest customers can place RMA requests.

Account-Holding Customer Placing an RMA Request on the Frontend

To place an RMA request, an authorized (logged in) account-holding store customer does the following:

1. Select **My Account > My Orders**.

2. Locate the order containing the items to be returned.

3. Click the **View Order** link.

4. Click the **Return** link in the upper-right corner of the order view. See Figure 168.

Figure 168. Return Link for Account-Holding Store Customers

The New Return for Order page opens. The field block for the first product to return is displayed.

5. By default, for each return product a customer must fill the following fields. (The fields correspond to the RMA attributes, which can be managed in the Admin Panel. For details, see "Creating and Managing RMA Item Attributes," page 182.)

   ❖ **Quantity to Return:** The quantity of the product items that a customer wants to return. For complex products this field does not appear. The customer specifies the quantity to return for each simple product in the **Item** field.

   ❖ **Reason to Return:** By default, the following values are available: **Wrong Color**, **Wrong Size**, **Out of Order**, and **Other**. If **Other** is selected, the additional text field appears for specifying the reason.

   ❖ **Desired Resolution:** The way the customer wants to resolve the situation. By default, the following values are available: **Exchange**, **Refund**, **Store Credit.**

   ❖ **Item Condition:** By default, the following values are available: **Unopened**, **Opened**, and **Damaged**.

To add more products to the return request the customer should use the **Add Item to Return** link in the bottom of the page.

6. When the customer is finished supplying the information about all products to be returned, the customer saves the request by using the **Save** button.

After the return request is saved, it can be viewed on the **My Returns** tab of the customer's account page. The request cannot be edited, but comments can be added to the saved return requests.

Upon creation, a return request is in Pending status. When the request status changes, it is reflected in the customer's account on the frontend as well.

Guest Customer Placing an RMA Request on the Frontend

To create a return request, a guest customer must do the following:

1. Click the **Orders and Returns** link in the store page footer.

2. Fill the following fields (redundant information about the order is required for purposes of security):

   ❖ **Order ID**

   ❖ **Billing Last Name** (as it is specified in the order billing address)

   ❖ **Find Order By:** The possible values are **Email Address** and **ZIP Code**

   ❖ **Email Address/Billing ZIP Code:** Depends on the selection in the **Find Order By** field

3. Click **Continue**. The New Return for Order page opens.

4. Fill in the fields and save the request on the New Return page (see step 5 in "Account-Holding Customer Placing an RMA Request on the Frontend," page 183).

Creating an RMA Request Using the Orders and Returns Widget

Magento Enterprise Edition includes an Orders and Returns widget. A widget of this type enables guest customers to access their orders one step quicker, compared to using the **Orders and Returns** link in the page footer.

Figure 169 illustrates an example of the Orders and Returns widget on the frontend:
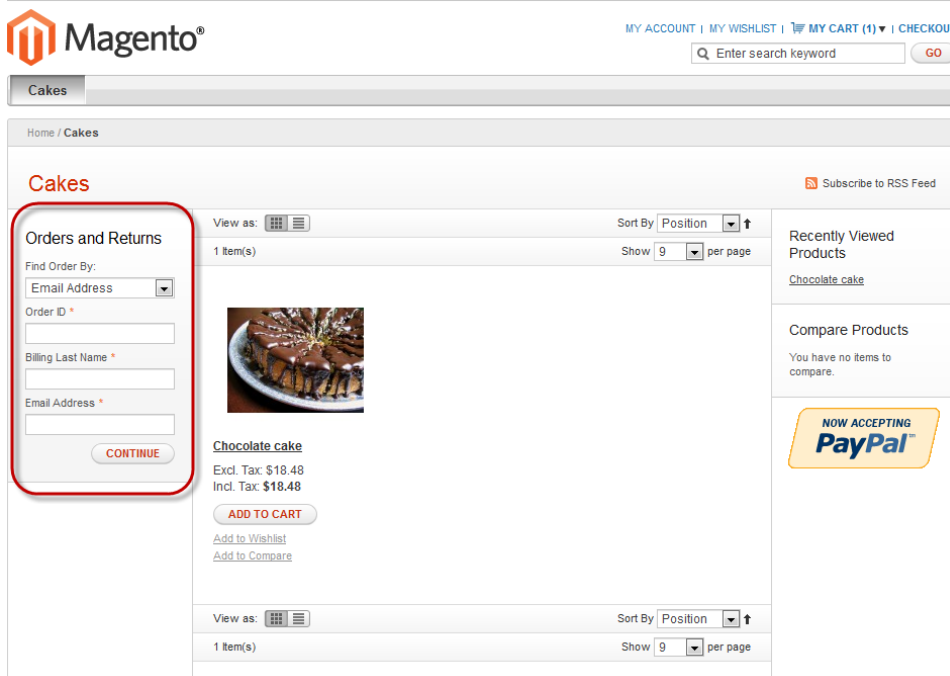
Figure 169. Orders and Returns Widget

Note: If you add a widget of this type, the returns will be available for guest customers, even if the RMA functionality is set to be unavailable on the frontend.

To access the widget management functionality, on the Magento top menu navigate to **CMS** > **Widgets**.

18.8   Placing an RMA Request on the Backend

In the Admin Panel, you can create RMA requests from three locations:

❖ RMA managing section

❖ Order management section, from the order view page

❖ Customer management section, from the customer's page

Creating an RMA Request from the RMA Management Section

To access the RMA management section navigate to **Sales > RMA** > **Manage RMA**. See Figure 170.
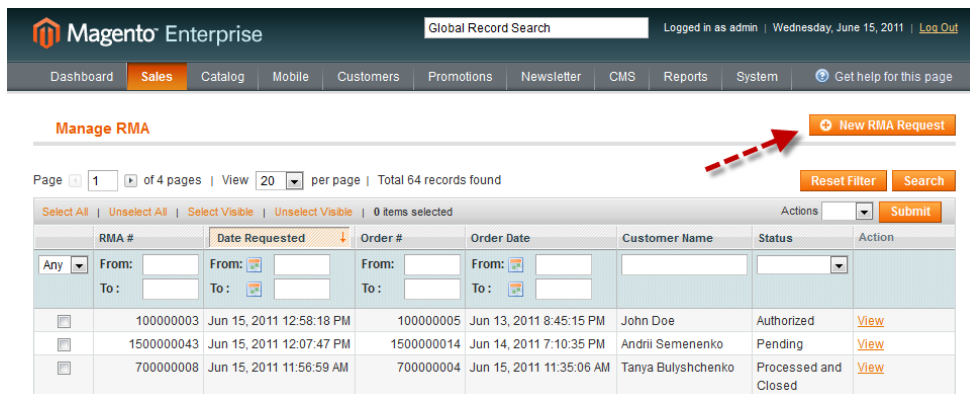
Figure 170. Creating a New RMA Request from the RMA Managing Section

When you click the **New RMA Request** button, the Create New RMA page opens.

Creating an RMA Request from the Order View Page

To open the order view of a particular order, navigate to **Sales** > **Orders**, and click the desired order. See Figure 171.
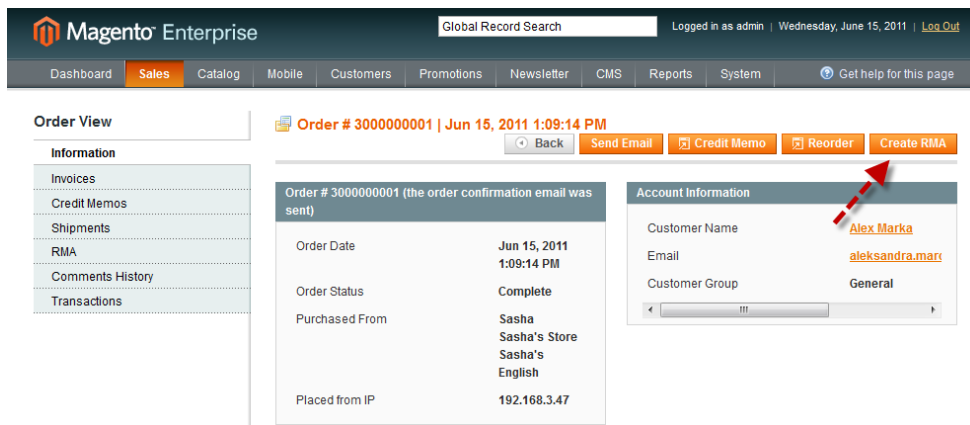
Figure 171. Creating RMA Request from the Order View Page

When you click the **Create RMA** button, the Create New RMA page opens.

Creating an RMA Request from a Customer Page

To access the customer page, navigate to **Customers** > **Manage Customers**, and click the desired customer.

Figure 172. Creating an RMA Request from the Customer Page

On the **Order** tab of the customer page, the **Return** link is available only for shipped orders. When you click the link, the Create New RMA page opens.

Setting Up and Saving a New RMA Request

The first step in creating an RMA request from the Admin Panel is specifying the order from which items need to be returned. If you selected to create an RMA request from the Customer view page or Order view page, this step is omitted.

To set up and save a new RMA request on the Create New RMA page:

1. On the **General Information** tab you can type the contact email address of the customer, add comments and see the shipping cost estimation using the **Get shipping methods and rates** link in the Shipping Method section.
   If you want the customer to receive an email notification about the RMA creation, select the **Email RMA Confirmation** check box in the lower-right corner of the page.

2. On the **RMA Items** tab you can add products to the request (at least one product must be specified to save the RMA request).
   To add a product to the RMA request:

   a. Click the **Add Product** button.

   b. Select the product(s), click the **Add Selected Products to RMA** button;

   c. Specify the RMA attributes values.

   Note: *To manage the RMA attributes, select* **Sales** *>* **RMA** *>* **Manage RMA Items Attributes***.*

3. To save the RMA request click the **Submit RMA** button in the upper-right corner of the page.

18.9   Managing RMA Requests

According to the RMA logic in Magento, you can change the status values of items in the RMA request, and the status of the request changes correspondingly. This section contains a detailed description of the RMA management process.

Existing RMA requests can be managed from three locations in the Admin Panel:

❖ The Manage RMA page (select **Sales** > **RMA** > **Manage RMA**)

❖ The order view page (select **Sales** > **Orders** >*your order* > **RMA** tab)

❖ The customer page (select **Customers** > **Manage Customers** >*your customer* **> RMA** tab)

The provided workflow for an RMA request can be divided into several stages, as illustrated in Figure 173 (next page).
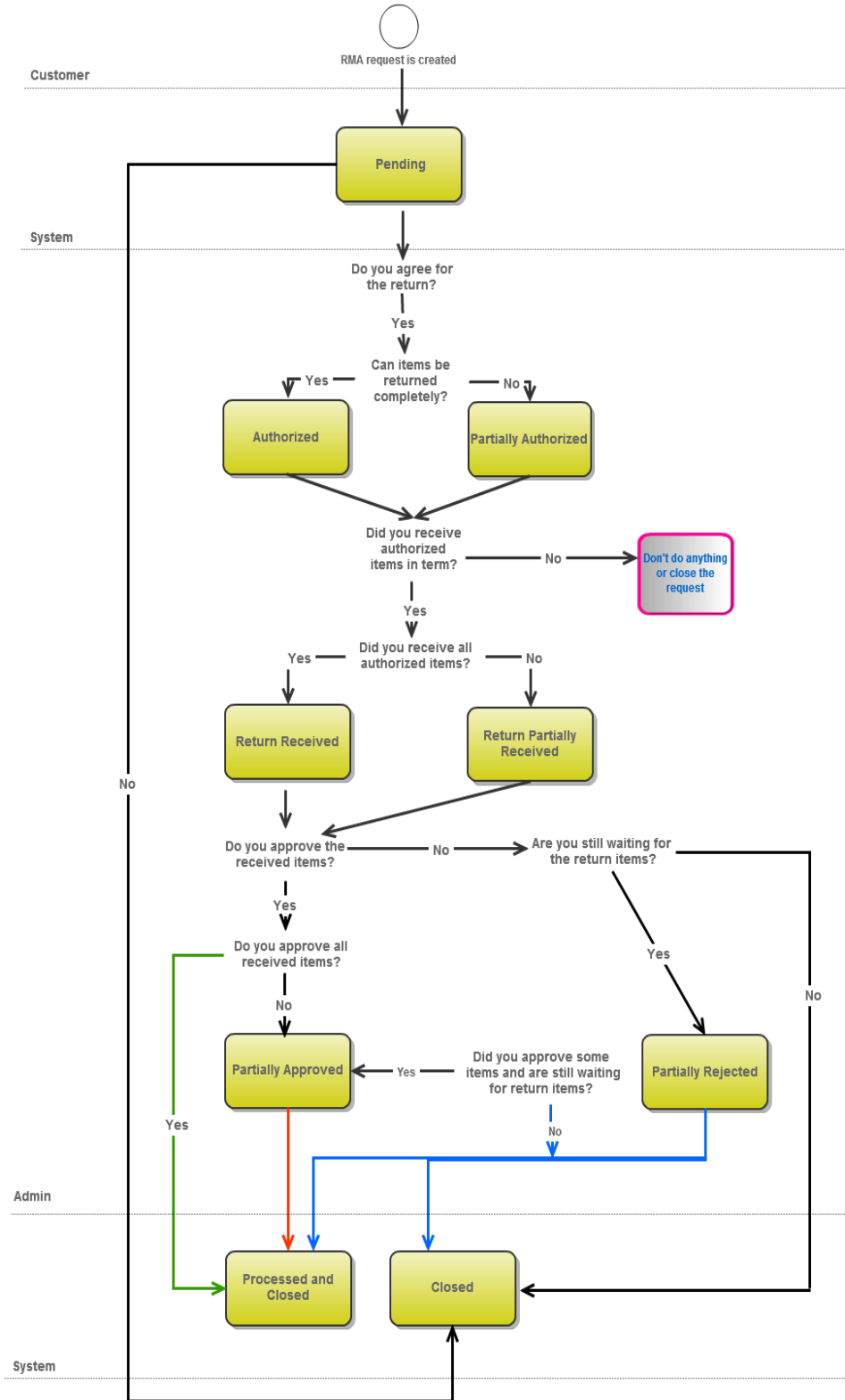
Figure 173. RMA Process

To manage an RMA:

1. An RMA request is placed. Now you need to decide whether you agree to proceed with RMA process. You have the following options:

Action	Do this	RMA request status
Reject the return	On the RMA page, click the **Close** button.	Closed
Preapprove the return	1. On the RMA page click the **RMA Items** tab. 2. For the rejected items, set **Status** to **Denied**. 3. For the preapproved items, specify the quantity of the product, you have preapproved in the **Authorized Qty** field, and set their **Status** to **Authorized**. 4. Click the **Save** button.	Partially Authorized (if there are some items in Denied or Pending Status) Or Authorized (if all items are authorized). In this case the options for creating the shipping label for the back shipment appear on the General Information tab. When you create a shipping label, the customer can print it from the RMA view page on the frontend.

Now the customer is expected to send the return items back to you. If you agree to pay for the shipment, you can create a shipping label from the RMA page. See "Return Shipments," page 191, for details.

2. You receive the returned items. On the **RMA Items** tab of the RMA page, specify the quantity you have received for each product, change its **Status** to **Return Received**, and click **Save** or **Save and Continue**. The new status of the RMA request depends on the correlation between the authorized and received quantities:

❖ If **Returned Qty** is equal to **Authorized Qty** for all authorized products, the RMA request status becomes Return Received.

❖ If, for some authorized products, **Returned Qty** is less than **Authorized Qty**, the return request status becomes Return Partially Received.

Now you can decide how the return can be resolved. At this point, you have the following options:

Action	Do this	RMA request status
Reject the return	On the RMA page, click the **Close** button.	Closed
Approve the return	1. On the RMA page click the **RMA Items** tab. 2. For the rejected items, set **Status** to **Denied**. 3. For the approved items, specify the quantity of the product, you have	Processed and Closed (if all items are either in Approved or Denied status) or Partially Approved (if at least one product return was

Action	Do this	RMA request status
	approved in the **Approved Qty** field, select the way the return will be resolved in the **Resolution** field, and set their **Status** to **Approved**. You may need to select different resolution options for one product. For example, you authorized the return of 10 chairs. When they arrived, you saw that they are really damaged and you approve the return. But you have only 2 chairs left in stock, so you can exchange only 2 chairs, and refund the rest. In this case, you can add more lines for the product, using **Split Line** link in the Action column, and then in each row set different **Approved Qty** and **Resolution**. 4. Click the **Save** button.	Approved, but still there are items with Authorized status) or Partially Rejected (if all returned products were rejected, but there are still products for which **Returned Qty** is less than **Authorized Qty**)

3. Managing the return resolutions (refund or exchange) is out of the RMA functionality scope, and can be managed in other sections of the Admin Panel. Depending on the resolutions you have selected for the approved RMA items, you may need to do the following:

Resolution	Your actions in the Admin Panel
Exchange	You can create a credit memo for the original order (having selected to refund to store credit and excluded the shipping costs from the refund), and create a new one for the exchange items. Alternatively, if the products you send in exchange are identical to those that were originally ordered, you can simply send the exchange products to the customer, outside of Magento. But in this case the shipment cost will not be included in the Shipment report in Magento.
Refund	Create a credit memo for the refunded items in the original order. You need to decide whether the shipping charges for the original order will be refunded. You can refund the original payment method or refund to store credit.

18.10 Return Shipments

When the RMA request reaches the Authorized status, the options for creating a shipping label for the back shipment appear on the **General Information** tab. See Figure 174.
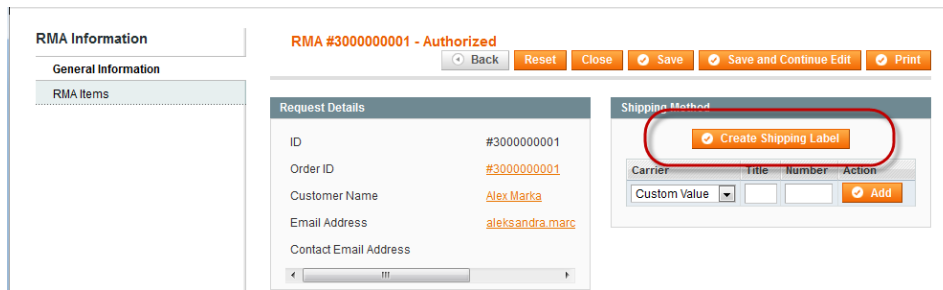
Figure 174. Creating Shipping Labels for Return Shipment

Creating a Shipment Order and Shipping Labels for RMA from the Magento Admin Panel

When you choose to create a shipping label, Magento connects to the shipping carrier web services, creates a shipment order at the shipping carrier side, and receives the shipping label and the tracking number. In the shipment order, the customer shipping address (taken from the original order) is used as sender address; the store address is used as receiver address. The store address is taken from the RMA configuration (**System** > **Configuration** > SALES > **Sales** > **RMA Settings**).

To create a shipping label:

1. Click the **Create Shipping Label** button. The Packages pop-up window appears.

2. Select the packages and distribute shipped items between packages. The information about packages (type, size) and its contents (which products go to which packages) is required in order to generate a shipping label. For details about creating packages, see "Creating Packages in the Create Packages Pop-Up Window," page 173.

3. After you create the packages and click **OK**, Magento connects to the shipping carrier's web services, creates a separate shipping order in the carrier's system for each package, and receives the shipping labels and the tracking numbers.
   If you click **Cancel** on the Packages window, a shipping label is not created.

Shipping labels for one shipment can be created multiple times. When you create a new shipping label, the old shipping label and tracking numbers are deleted and replaced with new ones.

Once you create a shipping label for the return shipment, the customer can print it from the RMA view page on the frontend.

To view a shipping label:

Click the **Print Shipping Label** button to download and view the PDF file for the shipping label.

To view packages configuration:

Click the **Show Packages** button next to the **Print Shipping Label** button.

Adding the RMA Shipping Information on the Frontend

If the return shipment is managed by the store customer, he or she can add the tracking number (or numbers) of the shipment to the RMA request. A tracking number that is added on the frontend is visible in the Admin Panel as well.

18.11 Viewing RMA Requests on the Frontend

All changes made in the RMA request by the store administrator are reflected in the RMA request view on the frontend (except the comments, which can be hidden, if the store administrator chooses not to show them).

Account-holding (logged-in) customers can view their RMA requests on the **My Returns** tab of the **My Account** page. Placed RMA requests are displayed here. See Figure 175.

Figure 175. My Returns Section on the Frontend

Guest customers can view their RMA requests using the **Orders and Returns** link in the store page footer or the Orders and Returns widget.

On the RMA request view page customers can leave comments.

19 Store Credit

This chapter introduces Store Credit functionality, which essentially is a balance associated with a customer account. Store Credit can be used by customers for paying in the store, and can be used by administrators for refunding money to customers. Additionally, Gift Card balances can be transferred to Store Credit, saving customers from having to manually enter the Gift Card code on subsequent purchases.

This feature is available in Magento Enterprise Edition.

19.1 Configuration of Store Credit

There are some configuration settings that must be completed relating to Store Credit. In order to do so, navigate to **System** > **Configuration**, click the **Customer Configuration** tab in the left column, and select the **Store Credit Options** section. The following settings are available:

❖ **Enable Store Credit Functionality:** Determines if the Store Credit module is enabled. Disabling it will remove the Store Credit tab from the My Account section in the frontend, as well as in the Manage Customers page in the backend.

❖ **Show Store Credit History to Customers:** Determines if the balance history of a customer's Store Credit is visible to the customer in their My Account page.

❖ **Store Credit Update Email Sender:** Determines the sender of the email that customers receive when their Store Credit balance is updated.

❖ **Store Credit Update Email Template:** Determines the template of the email that customers receive when their Store Credit balance is updated.

When you have completed these settings, click **Save Config** in the top right of the page.

19.2 Managing Store Credit

The store administrator can view and edit a customer's Store Credit balance at any time. To do so, navigate to **Customers** > **Manage Customers**, select a customer from the customer grid, and click the **Store Credit** tab in the left column. The first section on this page shows the current balance. If customer accounts are shared on the Global level, this section will be a grid listing the customer's balance in each website.

The second section enables you to update the balance of the customer. The **Update Balance** field is where the change in balance should be entered. The amount here can be positive or negative, and will add to or subtract from the existing balance, respectively. If customer accounts are shared on the Global level, there will be a drop-down menu in which you choose the website for which the balance will be updated. Additionally, there is a check box that enables you to send the Store Credit Update email to the customer, notifying them of the balance change. Selecting this option unlocks the **Store View** drop-down menu, which determines from which store view the email will be sent.

The third section displays the balance history, including a timestamp, a description of the action, and the balance change. Additionally, for some actions there is additional information available, such as the order number on which store credit was applied. This section is in the form of a grid, enabling you to filter the records.

Refunding to Store Credit

While creating a Credit Memo, you have the ability to refund the amount to a customer's store credit. On the New Credit Memo page, there is a field in which you can enter the amount of the refund that will be applied to the customer's store credit. This feature enables you to apply either the full or a partial amount of the refund to store credit.

Paying with Store Credit

In order to pay with Store Credit, a customer must be logged in during checkout. In the Payment Information step of the checkout process, a **Use Store Credit** check box will appear above the enabled payment methods. The available balance will be displayed in parentheses. If the available balance is greater than the order grand total, the enabled payment methods will disappear upon selecting the check box. In the Order Review step of the checkout process, the amount of store credit applied to the order will appear among the order totals, subtracting from the grand total, similar to Gift Cards.

The customer's store credit balance will be deducted only when the order is placed.

Orders paid with store credit cannot be refunded. Credit memos will not be available. To refund such an order, cancel it and manually increase the balance of the customer's account appropriately. If an order is partially paid with store credit, the amount paid with store credit cannot be refunded. Again, this amount should manually be added to the customer's account.

Store Credit in My Account

A customer's My Account section includes a Store Credit tab. This page displays the current balance, as well as the balance history (if enabled in the Configuration page). In addition to this, customers can apply a Gift Card account balance toward their store credit. There is a link in the Store Credit tab which redirects to the Gift Card tab (if the Gift Card is Virtual or Combined, the email sent to the recipient will also contain a link to the Gift Card tab). The customer can enter the Gift Card Code in the field, and click **Redeem Gift Card** to transfer the balance. In order for the balance to be transferrable, the Gift Card Account must be set to Redeemable.

20 General Magento Payment Concepts

Magento offers a wide range of built-in interfaces to popular payment services and gateways that enable the collection of money from your customers. This chapter describes some of the general concepts that are associated with payment methods.

In addition to the built-in payment methods, many more can be added by downloading Magento payment module extensions, provided at http://www.magentocommerce.com/magento-connect. More information on installing payment module extensions is provided in "Extending Magento," page 344.

20.1   Definitions

The following terminology is useful to know when setting up payment methods:

❖ **Payment method:** A way for the customer to pay for the merchandise in your store. Payment methods can be internal, such as check, money order, or stored credit card, or external, such as PayPal or Authorize.Net.

❖ **Payment gateway:** A third-party service provider that processes transactions for external payment methods.

❖ **Payment Bridge:** A Magento software product that enables merchants to meet PCI security requirements. Certain external payment methods can be used with or without Payment Bridge, and some external payment methods require Payment Bridge.

20.2   Using External Payment Methods

The advantages of using external payment methods include faster processing, enhanced security, and less overhead for the store owner. The more external payment methods you offer to your customers, the more likely they will be able to find one they can use. There is a cost, however; each external payment method has service fees that you must pay. Terms and conditions vary from method to method. Some methods can be used by customers only in certain countries or using certain currencies.

Some external payment methods can be used only with Magento Payment Bridge. For more information, see "Magento Payment Bridge," page 463.

20.3   Using Internal Payment Methods

Magento's internal payment methods (including checks, money orders, purchase orders, and saved credit cards) typically rely on physical mail or manual processing. They are generally used for smaller-volume merchants who do not need the automation afforded by external payment methods.

20.4   Payment Bridge

Magento Payment Bridge is a PA-DSS certified secure payment application that helps merchants in meeting PCI compliance. It is installed separately from Magento. Magento Payment Bridge is provided with a subscription to Magento Enterprise Edition. Magento Payment Bridge is a perfect way to keep all customer-to-merchant information interchange working via a separate PA-DSS compliant application, eliminating the need to make your Magento installation itself PA-DSS compliant. This enables you to make updates with new marketing, merchandising and content management features to the core Magento eCommerce application without having to go through PCI compliance reassessment of the entire Magento eCommerce platform.

For more information about the payment methods that are supported by Payment Bridge, and how to enable and configure Payment Bridge, see "Magento Payment Bridge," page 463.

21 PayPal Payment Methods

PayPal is one of the most popular ways to accept online payments. It enables you to accept credit cards and PayPal accounts. The following PayPal payments methods are integrated with Magento:

- ❖ PayPal Payments Advanced (Includes Express Checkout)
- ❖ PayPal Payments Pro (Includes Express Checkout)
- ❖ PayPal Payments Standard
- ❖ PayPal Payflow Pro (Includes Express Checkout)
- ❖ PayPal Payflow Link (Includes Express Checkout)
- ❖ PayPal Express Checkout
- ❖ PayPal Payments Pro Payflow Edition (Includes Express Checkout) (UK only)
- ❖ PayPal Payments Pro Hosted Solution (Includes Express Checkout)

> *Important Note: According to the implemented logic, all PayPal payment methods except PayPal Express Checkout are mutually exclusive. This means that you cannot configure and enable two or more methods simultaneously, except that Express Checkout may be enabled with other PayPal payment methods. PayPal Payments Standard may not be enabled simultaneously with any other method, including Express Checkout.*

The PayPal payment methods that are integrated with Magento require that the merchant have a PayPal business account and/or a PayPal Payflow account. The type of PayPal account which is required is specified in each method's description. Regarding store customers who have a buyer account at PayPal, both the Express Checkout and the Express Checkout for Payflow Pro payment methods need your customers to also have buyer accounts at PayPal for paying for their purchases. The PayPal Payments Standard payment method can work either directly or through a buyer account. This depends on the **PayPal Account Optional** parameter being enabled in the Premier or Business account of a merchant.

The PayPal payment methods that are available in Magento, and the method names, are different depending on merchant location. You can find country-specific lists of available PayPal methods in "Country-Specific Lists of PayPal Methods Integrated with Magento," page 470. Two PayPal payment methods that can be used all over the world are Express Checkout and PayPal Payments Standard.
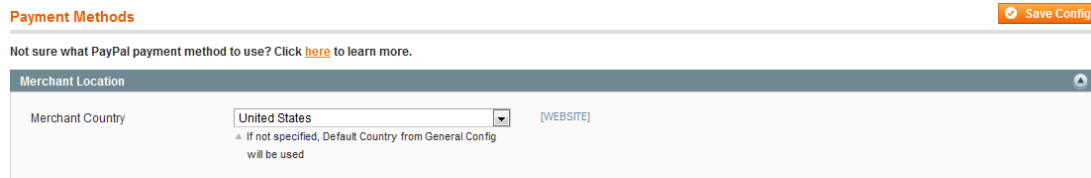
21.1 Setting Merchant Location

Setting the merchant location is a necessary step in configuring PayPal payment methods.

To set the merchant location country:

1. Log in to the Magento admin panel.
2. Navigate to **System** > **Configuration** > SALES **> Payment Methods**.
3. In **Current Configuration Scope** in the upper-left corner of the page select your website or leave **Default Config**.

4. Under Merchant Location in the **Merchant Country** field, select your country (see Figure 176).

5. To save changes, click **Save Config**.

Figure 176. Setting Merchant Location for PayPal Payment Methods

Regarding the customers who have buyer accounts at PayPal, both the Express Checkout and the Express Checkout for Payflow Pro payment methods require your customers to also have buyer accounts at PayPal for paying their purchases. The Website Payments Standard payment method can work either directly or through a buyer account. This depends on the **PayPal Account Optional** parameter being enabled in the Premier or Business account of a merchant. By default, this parameter is enabled and the web store customers can choose whether to simply enter their credit card information and the billing and shipping addresses and pay the order amount, or to create a buyer account with PayPal and then pay the order amount. With this parameter turned off, the customer will need to create a buyer account with PayPal prior to paying the order amount. Using the Website Payments Pro, Website Payments Pro Payflow Edition, Payflow Pro Gateway, or Payflow Link payment methods requires that the customer enter credit card information during the shopping cart checkout.

21.2 PayPal Payments Advanced

The PayPal Payments Advanced payment method is available for merchants in the United States only.

General Concept

The PayPal Payments Advanced payment method passes the information about the card, entered by a customer, directly to PayPal; it is never stored in your Magento system. A merchant needs to have a PayPal business account to be able to use this payment method. A customer does not need to have a PayPal buyer account to use this method. PayPal Payments Advanced also includes PayPal Express Checkout.

The PayPal Advanced payment method is not available for orders created from the Admin Panel.

Configuring PayPal Payments Advanced

To use the PayPal Advanced method, you should have a PayPal Payments Advanced account on PayPal. You need to have a separate account for each website.

Configuring the PayPal Advanced method for each website is a two-step procedure for each website:

1. Set the options in the Magento Admin Panel.

2. Set the required options of the PayPal Payments Advanced account on the PayPal Manager website.

Setting PayPal Payments Advanced Options in the Magento Admin Panel

To configure the PayPal Advanced payment method in the Magento Admin Panel:

1. Log in to the Magento Admin Panel.

2. Navigate to **System** > **Configuration.**

3. Select the desired website from the **Current Configuration Scope** drop-down menu in the upper-left corner of the page.

4. Under SALES in the left column, click **Payment Methods.** In the Merchant Location section, choose **United States** in the **Merchant Country** field. If any other country is selected, the PayPal Payments Advanced settings are not displayed.

5. In the PayPal All-in-One Payment Solutions section, click the **Configure** button next to **PayPal Payments Advanced**, to expand the corresponding settings.

6. In the **Required PayPal Settings** field set, configure the following:

   ❖ In the **Partner**, **User**, **Vendor** and **Password** fields, specify your PayPal Payments Advanced account credentials.

   ❖ **Test Mode**: The test mode helps testing the integration of Magento with the PayPal payment system. Transactions that are submitted while the account is in the test mode are not actually submitted to the credit card and electronic check processing networks, and credit card or bank accounts are not actually charged. Therefore, these transactions do not have valid transaction IDs. When you finish testing the integration project, the test mode must be turned off.

   ❖ **Use Proxy**: Decide whether the proxy server is used for establishing the connection between Magento and the PayPal payment system. If you select **Yes**, two additional fields for specifying the proxy host and port are displayed.

   ❖ If you want to enable PayPal Express Checkout, configure the settings in the Express Checkout section.

   Note: *PayPal Express Checkout can be also configured individually under **System** >*
   ***Configuration** > SALES > **Payment Methods** > **Express Checkout**. If Express*
   Checkout is configured within another PayPal solution, such as Payments
   Advanced or Payments Pro, individual Express Checkout settings are not available.

7. In the Basic Settings – PayPal Payments Advanced section, configure the following settings:

   ❖ **Title**: In the **Title** field, specify the name of the payment method that will be displayed to customers in the Payment Information section of the one-page checkout. This parameter can be set up for each store view.

❖ **Sort Order:** When deciding to use a number of payment methods, in the **Sort Order** field determine the sequence number of this method in the list of available methods in the Payment Information section of the one-page checkout.

Note: The payment methods for which the sort order is not set are displayed first.

❖ **Payment Action:** Choose what type of transaction is conducted when the order is placed, and the entities that will be created in the backend as a result. The following options are available:

   o **Authorization:** The payment is authorized and only an order is created in the backend of your store.

   o **Sale:** The payment is captured on the PayPal side, and as a result an order and an invoice are created in the backend of your store.

❖ **Payment Applicable From:** Choose the countries from which customers can use this payment method. Choose between the following options:

   o **All Allowed Countries:** Customers from the default countries list can use this payment method.

   o **Specific Countries:** Only customers whose billing address includes one of the countries selected in the **Countries Payment Applicable From** field can use this payment method. The field works as a filter, so that this payment method will be listed for only those customers whose billing address is in one of these selected countries.

❖ **Debug Mode:** In the **Debug Mode** field, specify whether communications with the payment system are written into the log file. The log file for PayPal Payments Advanced is *payments_payflow_advanced.log*.

❖ **Enable SSL verification**: Decide whether you want to enable host authenticity verification.

❖ **CVV Entry is Editable**: Choose whether the field for entering CVV number will be displayed.

❖ **Require CVV Entry**: Choose whether CVV field will be mandatory. The setting appears only if **CVV Entry is Editable** is set to **Yes**.

❖ **Send Email Confirmation**: Choose whether PayPal email confirmation will be sent to customers.

❖ **URL method for Cancel URL and Return URL**: The setting refers to the Cancel and Return URL displayed on the PayPal-hosted form.

8. The PayPal Billing Agreement Settings, Settlement Report Settings and Frontend Experience Settings, and Basic Settings – PayPal Express Checkout sections are related to configuring the PayPal Express Checkout method, which is included with the PayPal Payments Advanced payment method. PayPal Express Checkout can be also configured individually. See "PayPal Express Checkout," page 214, for more information.

9. Click **Save Config** in the upper-right corner of the page to save the settings.

Setting the PayPal Payments Advanced Account Options on the PayPal Manager Website

To make the necessary settings for the PayPal Advanced account:

1. Log in to https://manager.paypal.com/

2. Navigate **to Service Settings > Hosted Checkout Pages**. Options should be configured in the Set Up and Customize sections.

3. Configure the options according to the recommendations displayed in the **PayPal Payments Advanced** field set in the Magento Admin Panel.

PayPal Payments Advanced Method: Customer Experience

A store customer selects the PayPal Payments Advanced payment method on the Payment Information checkout step and clicks **Continue**. The Order Review step appears, where the **PAY NOW** button is available instead of the usual **PLACE ORDER** button. After the customer clicks **PAY NOW**, the PayPal-hosted form opens in the customer's browser. The customer specifies the card information and clicks **Verify Card**. If the transaction is successful, the customer is redirected to the order confirmation page.

> *Note: The form also contains the **Pay with PayPal** button; clicking it redirects a customer to the PayPal site, where the customer can complete the payment using PayPal Express Checkout.*

If the transaction fails on any reason, an error message appears on the checkout page and the customer is directed to repeat the checkout process. These situations are handled on the PayPal side.

Order Processing with the PayPal Advanced Payment Method

Processing of orders that are paid using the PayPal Payments Advanced payment method is the same as regular processing of orders that are paid with PayPal. An invoice, shipment, and credit memo (online/offline refund) can be created. Multiple online refunds are not available for the PayPal Payments Advanced payment method.

When PayPal Advanced is used, an order is created in the Admin Panel when a customer clicks **PLACE ORDER** on the Order Review step of the one-page checkout. The order status upon creation depends on the response the system receives from PayPal, and can be one of the following:

- ❖ **Processing**: The transaction was successful

- ❖ **Pending Payment**: The system did not receive any response from PayPal

- ❖ **Canceled**: The transaction was not successful for some reason

- ❖ **Suspected Fraud**: The transaction did not pass some of the PayPal fraud filters; the system receives the response from PayPal that the transaction is under review by Fraud Service

21.3 PayPal Payments Pro (Includes Express Checkout)

With the PayPal Payments Pro payment method, customers do not need to have an account with PayPal and they are not redirected to the PayPal website at all. Credit cards that customers enter are processed directly on your website with the Website Payments Pro method, which is also known as the PayPal direct method of payment. The method also includes PayPal Express Checkout, which cannot be disabled when PayPal Payments Pro is enabled.

The PayPal Payments Pro payment method can work via the Magento Payment Bridge or without it.

The Website Payments Pro method of payment is available only to merchants in the United States, the United Kingdom, and Canada. When enabled, the method is available during order creation in the frontend and the backend. A merchant needs to have a PayPal business account to be able to use this payment method.

> **Note:** *By default, direct payments are not enabled in the PayPal merchant account, and therefore the Website Payments Pro payment method will not work in your Magento installation. You need to apply to the PayPal Merchant Technical Support at http://www.paypal.com/mts for direct payments to be enabled.*

Configuring PayPal Payments Pro

To enable and configure the Website Payments Pro payment method:

1. In the admin panel, navigate to **System** > **Configuration** > SALES >**Payment Methods**. In the **Current Configuration Scope** field, select the website for which the payment method is to be enabled and then make sure that the Merchant Country field is specified correctly.

2. Under PayPal All-in-one Payment Solutions, click the **Configure** link for **PayPal Payments Pro**. The options are distributed under several sections: Required PayPal Settings, Basic Settings – PayPal Payments Pro, and Basic Settings PayPal Express Checkout.

3. Configure the following options under Required PayPal Settings:

   ❖ If the Payment Bridge web application is set up for your Magento installation, enable the **Use Via Payment Bridge** parameter so that payments placed using the PayPal Payments Pro method of payment are processed with PayPal through a secure PA-DSS compliant payment application. If you choose to use Payment Bridge, the PayPal Payflow Pro method should be enabled and configured in the Payment Bridge application. In the Magento Admin Panel you need to configure only settings grouped under Required PayPal Settings. See "Magento Payment Bridge," page 463, for details about Payment Bridge

   ❖ Populate the **Email Associated with PayPal Merchant Account**, **API Username**, **API Password**, and **API Signature** fields with your PayPal merchant account information.

❖ You can choose to activate the test mode for the PayPal payment system merchant account in the **Sandbox Mode** field. The test mode helps testing the integration of Magento with the PayPal payment system. Transactions that are submitted while the account is in the test mode are not actually submitted to the credit card and electronic check processing networks, and credit card or bank accounts are not actually charged. Therefore, they do not have a valid transaction ID. After you have finished testing the integration project, the test mode must be turned off.

❖ In the **API Uses Proxy** field, decide whether a proxy server is used for establishing the connection between Magento and the PayPal payment system. If you select **Yes**, two additional fields for specifying the proxy host and port become available.

❖ Finally, choose to enable the PayPal Payments Pro method including Express Checkout in the **Enable this Solution** field.

4. Configure the following options under Basic Settings – PayPal Payments Pro:

❖ In the **Title** field, set the payment method title available for customers in the frontend. This title is store-view specific.

❖ When deciding to use a number of payment methods, in the **Sort Order** field determine the order this method will be displayed in the Payment Information section of the shopping cart Checkout page in the frontend.

❖ In the **Payment Action** field, choose the way payments will be authorized in the PayPal payment system and the entities that will be created in the backend as a result of the payment procedure. The following options are available:

  o **Authorization**: Payments are only authorized in the PayPal payment system and only an order is created in the backend of your store. You need to log on to the merchant account on the PayPal website and capture the transaction.

  o **Sale**: A payment is authorized and captured in the PayPal payment system and as a result a corresponding transaction is created in the PayPal merchant account and an order and an invoice are created in the backend of your web store.

❖ Under **Credit Card Settings**, in the **Allowed Credit Card Types** field, select the allowed types of credit cards that can be used for performing payments through the PayPal payment system. In the Payment Information section of the Checkout page in the frontend, the customer can choose among the credit card types specified in this list.

❖ Choose the countries whose residents can use this method of payment in the **Payment Applicable From** field. Choose between the following options:

  o **All Allowed Countries**: Customers from the default countries list can use this payment method.

o **Specific Countries:** Only customers whose billing address includes one of the countries listed in the **Countries Payment Applicable From** field that becomes available can use this payment method. The field essentially works as a filter, so that this payment method will be listed only for those customers whose billing address is one of these selected countries.

❖ In the **Debug Mode** field, specify whether communications with the payment system are written into the log file. The credit card related information is not written to the log file in order to prevent credit card fraud.

❖ In the **Enable SSL verification** field, decide whether you want to enable host authenticity verification.

❖ In the **Transfer Cart Line Items** drop-down menu, select whether information about each individual line item in the order is sent to the payment processor (**Yes**), or only the order total (**No**).

❖ In the **Require CVV Entry** field, choose whether a credit card verification number must be specified by the customer when entering credit card information during the products checkout. The Card Security Code (CSC) provides an additional security measure to prevent card misuse within online transactions. (The Card Security Code is also known as the Card Verification Value.)

❖ Under **3D Secure**, in the **3D Secure Card Validation** field, choose whether credit cards will be verified through the Centinel 3D Secure system. If the parameter is enabled, the following two fields become available.

o In the **Severe 3D Secure Card Validation** field, choose whether severe validation will be applied to credit cards by the Centinel system.

o In the **Centinel Custom API URL** field, specify the URL provided by Centinel which will establish the connection with the Centinel system for credit card validation.

❖ For details on PayPal Settlement Report and its settings see "Generating a PayPal Settlement Report," page 227.

5. Under Frontend Experience Settings, configure the following options:

❖ In the **PayPal Product logo** field, select the PayPal logo which will be displayed on the home and catalog pages of your store.

❖ Use the options grouped under the PayPal Merchant Pages Style heading to configure the store-related fragment of the PayPal page displayed to customers who choose to pay using PayPal Express Checkout. To see the hint for an option, click the question mark icon next to the field.

6. Under Basic Settings PayPal Express Checkout, configure the options of the PayPal Express Checkout Payment method. The options available for Express Checkout here are similar to the standalone Express Checkout options. For more information, see "PayPal Express Checkout," page 214.

7. To save the configuration, click **Save Config**.

Working with PayPal Payments Pro

After customers add products to their shopping carts, they can proceed to checkout by clicking the **Proceed to Checkout** button. Then, they need to specify the billing and shipping addresses and the shipping method. In the Payment Information section of the Checkout page, they select the **PayPal Direct Payment** method option button and then specify the type of credit card, its number, expiration date, and card verification number.

If the payment action selected in the backend configuration is **Authorize**, only a sales order of the Processing status is created in Magento. In this case, the amount of money to be authorized is pending approval on the payment gateway. With the PayPal Payments Pro payment method, you can process the payment online both in the Magento backend and from the PayPal merchant account.

> **Note:** *When checking out products from the shopping cart to multiple addresses simultaneously, customers can choose to pay the orders with the Website Payments Pro payment method.*

On the customer's request, the store administrator can also create an order from the backend and place it through the Website Payments Pro method of payment.

> **Note:** *An order can be voided online at any time until the order amount is fully invoiced. If required, the order can be online partially invoiced for a specified quantity of products. For each partial invoice submitted through the PayPal payment system, a separate transaction record with a unique ID and of the Capture transaction type will become available on the* **Transaction** *tab, and a separate invoice document will be created on the* **Invoices** *tab. The payment transaction of the type Authorization will be closed only after the full order amount is captured.*

When capturing the payment transaction, PayPal transfers the order amount from the buyer's balance, bank account or credit card to the merchant's account. If for any reason the customer returns the purchased products and claims a refund, like with order amount capturing and invoice creation, you can create an online refund either in the Magento backend or in the PayPal merchant account.

> **Note:** *Make sure that instant payment notifications are enabled in your PayPal merchant account; an invoice will be created in Magento only after an instant payment notification message is delivered to Magento from PayPal. Based on these notifications, you can receive detailed payment information on each transaction from PayPal after you click the **Fetch** button on the Transaction page of an order.*

If the payment method has been set to Sale, both a sales order and an invoice are created in Magento under **Sales** > **Orders**.

21.4 PayPal (Website) Payments Standard

This section describes how to set up the PayPal (Website) Payments Standard method.

> **Note:** *In the Magento admin panel, for U.S. merchants this method is called PayPal Payments Standard; for merchants from other countries it is PayPal Website Payments Standard.*

To set up payment by PayPal Website Payments Standard:

1. Your first step is to create a PayPal merchant account. Check with PayPal (www.paypal.com) for detailed instructions.

2. In the Magento backend, select **System > Configuration > Payment Methods** to display the Payment Methods page, as shown in Figure 177.

Figure 177. Payment Methods Page

3. In the Merchant Location section, select the country and specify the email address that is associated with your PayPal merchant account.

4. In the PayPal All-in-One Payment Solutions section, click the **Configure** button next to **PayPal (Website) Payments Standard**, to expand the corresponding settings shown in Figure 178.
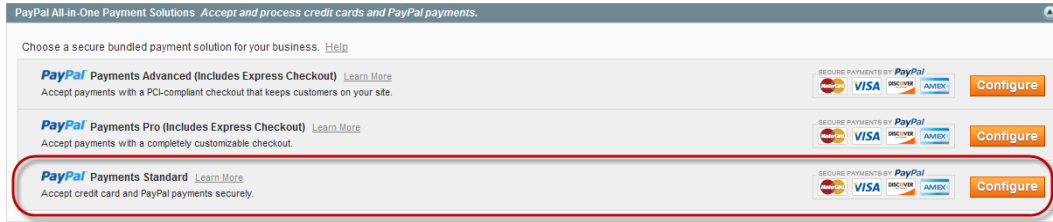
Figure 178. PayPal Website Payments Standard Settings

5. In the Required PayPal Settings section, specify an email address that was used when registering a merchant account with PayPal and choose to enable the solution (payment method). See Figure 179.
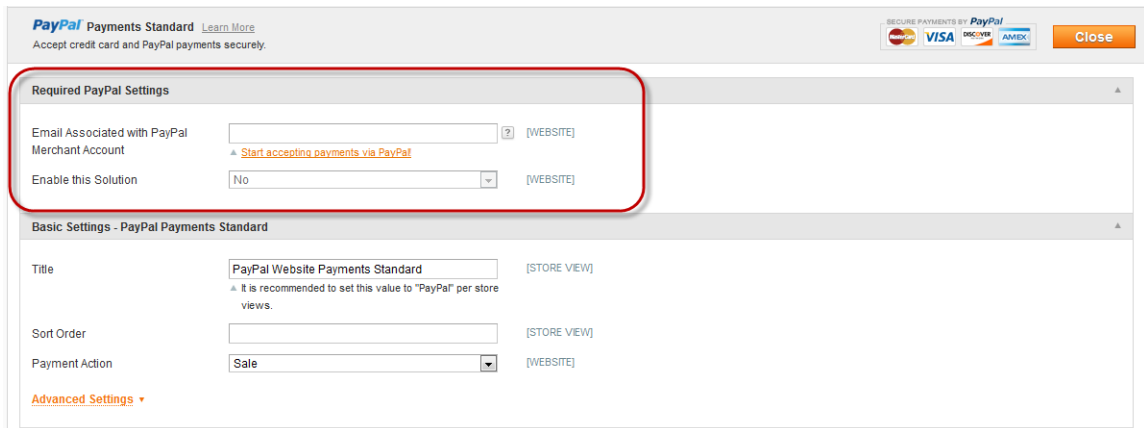
Figure 179. Required PayPal Settings for PayPal Payments Standard

6. In the Basic Settings – PayPal Payments Standard section, perform the following configurations:

❖ In the **Title** field, specify a title to be shown to your customers.

❖ In the **Sort Order** field, specify an integer number to indicate where this payment method should appear on the list of available payments on the frontend. A value of 1 places this payment at the top of the list, a value of 2 places it second, and so on.

❖ In the **Payment Action** field, select one of the following options:

o **Authorization:** Blocks or holds funds in the PayPal account until these funds have been transferred to your account. This usually occurs when you process the Order.

o **Sale:** Specifies that funds are transferred to your account immediately.

7. Click **Advanced Settings** to see and configure other available options:

❖ In the **Payment Applicable From** field, leave the **All allowed countries** selection or select **Selected Countries** to select from a list of countries.

❖ In the **Sandbox Mode** drop-down menu, select whether this payment method is in sandbox mode. Sandbox mode is used when you are setting up and testing the payment method; no actual payments are processed.

❖ In the **Transfer Cart Line Items** drop-down menu, select whether information about each individual line item in the order is sent to the payment processor (**Yes**), or only the order total (**No**).

❖ In the **Debug Mode** drop-down menu, specify whether communications with the payment system are written into the log file. Data (except for credit card numbers) is stored in the system log file.

❖ In the **Enable SSL Verification** drop-down choose whether you want to enable SSL verification.

8. Click **Save Config** to save the configuration.

21.5 PayPal Website Payments Pro Payflow Edition (Includes Express Checkout)

The Website Payments Pro Payflow Edition payment method is available only to merchants in the United Kingdom. Store owners must have a Payflow Pro merchant account at PayPal to set up the connection between Magento and the payment system and to provide this payment method to customers. To establish the connection, the account information provided during the merchant account registration must be entered in the Magento backend.

The Website Payments Pro Payflow Edition payment method sends transactions for processing to PayPal through the Payflow Pro gateway. This payment method provides web store owners with the following options:

❖ **Express checkout of shopping cart**: Customers having a buyer account can choose to pay with the Express Checkout (Payflow Edition) payment method and be redirected to the PayPal website. They can check out the shopping cart quickly using the saved billing and shipping address and credit card information.

Note: When Website Payments Pro Payflow Edition is enabled in Magento, the Express Checkout for Payflow Pro payment method is automatically enabled and it uses the Website Payments Pro Payflow Edition credentials for connecting to PayPal. With the Express Checkout Payflow Edition payment method, Magento customers will choose whether to log on to their existing PayPal buyer accounts, simply enter the billing address and credit card information without registering at PayPal, or both (register with PayPal and place a payment transaction there).

Note: Express Checkout for Payflow Pro cannot be used standalone; it uses credentials of the Website Payments Pro Payflow Edition payment method.

❖ **Direct payment**: Store owners can accept credit card payments directly on their websites. Customers using the Website Payments Pro Payflow Edition payment method do not need to have a buyer account with PayPal and they are not redirected to PayPal; credit card information is entered during the shopping cart checkout in the web store. After the order is placed, the PayPal payment system processes credit card payments from the shopping cart through the Payflow Pro gateway.

Configuring Website Payments Pro Payflow Edition

To enable direct payments through the Payflow Pro gateway:

1. Navigate to **System** > **Configuration** > SALES > **Payment Methods** and then select the website for which the payment method is to be enabled.

2. Make sure that United Kingdom is specified in the **Merchant Country** field under Merchant Location.

3. Under PayPal All-in One Payment Solutions, click the **Configure** link for Website Payments Pro Payflow Edition (Includes Express Checkout). The options are distributed under several sections: Required Settings, Basic Settings – PayPal Website Payments Pro Payflow Edition, Basic Settings – PayPal Express Checkout.

4. Configure the following options under Required Settings:

   ❖ If the Payment Bridge web application is set up for your Magento installation, enable the **Use Via Payment Bridge** parameter so that payments placed using the PayPal Payments Pro method of payment are processed with PayPal through a secure PA-DSS compliant payment application. If you choose to use Payment Bridge, the PayPal Payflow Pro method should be enabled and configured in the Payment Bridge application. In the Magento Admin Panel you need to configure only settings grouped under Required PayPal Setting. See "Magento Payment Bridge," page 463, for details about Payment Bridge

   ❖ Optionally populate the **Email Associated with PayPal Merchant Account** field.

   ❖ In the **Partner**, **User**, **Vendor**, and **Password** fields, specify the credentials of the Payflow Pro merchant account.

   ❖ Choose whether to activate the test mode for the PayPal payment system merchant account in the **Test Mode** field. The test mode helps testing the integration of Magento with the PayPal payment system. Transactions that are submitted while the account is in the test mode are not actually submitted to the credit card and electronic check processing networks, and credit card or bank accounts are not actually charged. Therefore, they do not have a valid transaction ID. Once you have finished testing the integration project, the test mode must be turned off.

   ❖ In the **API Uses Proxy** field, decide whether a proxy server is used for establishing the connection between Magento and the PayPal payment system. When selecting **Yes**, two additional fields for specifying the proxy host and port become available. A third party server can be used to relay the traffic, if there is no direct access to the PayPal server.

   ❖ In the **Enable this Solution** select **Yes** to enable the solution.

5. Under Basic Settings – PayPal Website Payments Pro Payflow Edition, configure the following options:

   ❖ In the **Title** field, for each store view set the payment method title available for customers in the frontend.

   ❖ When deciding to use a number of payment methods, in the **Sort Order** field determine the order that this method will be displayed in the Payment Information section of the shopping cart Checkout page in the frontend.

❖ In the **Payment Action** field, choose the way payments will be authorized in the PayPal payment system and the entities that will be created in the backend as a result of the payment procedure. The following options are available:

   o **Authorization**: Payments are only authorized in the PayPal payment system and only an order is created in the backend of your web store. You need to log on to the merchant account on the PayPal website and capture the transaction.

   o **Sale:** A payment is authorized and captured in the PayPal payment system and as a result a corresponding transaction is created in the PayPal merchant account and an order and an invoice are created in the backend of your web store.

❖ Under Credit Card Settings, in **the Allowed Credit Card Types** field, select the allowed types of credit cards that can be used when paying with the Website Payments Pro Payflow Edition method of payment. In the frontend, the customer can choose among the credit card types specified in this list. These will be provided in the Payment Information section of the Checkout page.

❖ Choose customers of which countries can use this method of payment in the **Payment Applicable From** field. Choose between the following options:

   o **All Allowed Countries**: Customers from the default countries list can use this payment method.

Note: *The default list of countries is defined in the* **Allow Countries** *field located under* *System > Configuration > GENERAL > General > Countries Options.*

   o **Specific Countries**: Only customers whose billing address includes one of the countries listed in the **Countries Payment Applicable From** field that becomes available can use this payment method. The field works as a filter, so that this payment method will only be listed for those customers whose billing address is one of these selected countries.

❖ In the **Debug Mode** field, specify whether communications with the payment system are written into the log file. The credit card related information is not written to the log file in order to prevent credit card fraud.

❖ In the **Enable SSL verification** field, decide whether you want to enable host authenticity verification.

❖ In the **Require CVV Entry** field, choose whether a credit card verification number must be specified by the customer when he or she enters credit card information during the shopping cart checkout. The Card Security Code (CSC) provides an additional security measure to prevent card misuse within online transactions. (The Card Security Code is also known as the Card Verification Value.)

❖ Under **3D Secure**, set the **3D Secure Card Validation** field to **Yes** to specify that credit cards will be verified through the Centinel 3D Secure system. If the parameter is enabled, the following two fields become available.

- o   In the **Severe 3D Secure Card Validation** field, choose whether severe validation will be applied to credit cards through the 3D Secure service. Severe credit card validation removes the charge back liability on the merchant.
- o   In the **Centinel API URL** field, specify the URL provided by Centinel which will establish the connection with the Centinel system for credit card validation.

❖ The Settlement Report Settings, Frontend Experience Settings and Basic Settings – PayPal Express Checkout sections are related to configuring the PayPal Express Checkout method. This edition of the PayPal Express Checkout has fewer options than standalone Express Checkout. However, the existing options coincide with the similar options of the Express Checkout. See "PayPal Express Checkout," page 214, for details about these options.

❖ In the **Transfer Cart Line Items** field, choose whether shopping cart items, their prices, quantities, and subtotal amounts, are transferred separately line by line or they are transferred as one whole with their price total value. If the parameter is enabled, the **Transfer Shipping Options** field becomes available.

Working with Website Payments Pro Payflow Edition

In the frontend, after customers add products to their shopping carts, they check out by clicking the **Proceed to Checkout** button. After they specify the billing and shipping addresses and choose the shipping method, in the Payment Information section of the Checkout page, they select the option button for the PayPal Direct Payment Payflow Edition payment method, and enter the type of credit card, its number, expiration date, and card verification number in the fields which become available. Then, the customer places the sales order.

The **Checkout with PayPal** button is also available in the shopping cart. If the customer chooses to check out with the Express Checkout payment method, she or he will be redirected to the PayPal website where the payment is confirmed. After that the customer is redirected back to the Magento Review Order page where he or she specifies the shipping method and places the order.

If the Authorize payment action was selected in the Website Payments Pro Payflow Edition payment method configuration, a sales order of the status Processing is created in Magento, and a transaction of the Authorization type is added on the **Transactions** tab. The transaction can be captured both in the Magento backend and in the PayPal merchant account. The latter option is possible because the Payflow Pro account is linked to the PayPal account of the merchant.

In Magento, you need to create an invoice and in the **Invoice Totals** block select the **Capture Online** option in the **Amount** field. As a result, one more payment transaction of the Capture type is added on the **Transactions** tab and an invoice document becomes available on the **Invoices** tab.

In the PayPal merchant account, you can select the necessary transaction on the account Overview page and then click the **Capture** button for it. On the Capture Funds page, enter the capture amount and then proceed to payment. Confirm the payment by clicking the **Capture Funds** button. An invoice is created in Magento as soon as PayPal verifies the payment and sends an instant payment notification to Magento. Make sure that Instant Payment Notifications (IPNs) are enabled for your PayPal merchant account.

If the Sale payment action was selected for the payment method configuration, a sales order of the status Processing and an invoice of the status Paid will be created.

The payment transaction information can be reviewed in the merchant account. All authorization, capture, and refund transactions created through the Website Payments Pro Payflow Edition method of payment can be reviewed in the PayPal manager at https://manager.paypal.com/ .

21.6   PayPal Express Checkout

Express Checkout is a PayPal solution for streamlining the checkout process. This payment method is applied in all countries from the PayPal Worldwide reference list. Unlike all other payment methods that Magento provides, the Express Checkout payment method allows the customer to check out at the beginning of a usual checkout flow. With the Express Checkout payment method enabled, the **Check out with PayPal** button becomes available on the product view page, in the shopping cart, and in the mini shopping cart. Clicking the button provides the ability to review the shopping cart price information on the PayPal website. To use this method of payment, the customer needs to log on to her or his buyer account at PayPal. The payment system uses the customer's billing and shipping information taken from the customer's PayPal buyer account. The customer can then continue and be redirected again to the Magento Review Order page. After the customer places the order in Magento, the payment information is submitted to PayPal and the payment transaction is settled there.

If the customer uses the one-page checkout flow and selects the Express Checkout payment method in the Payment Information section of the Checkout page, he or she is redirected to the PayPal from the Payment Review page, before the sales order is submitted. However, the Express Checkout method of payment is unavailable if the customer chooses to check out the products from the shopping cart to multiple addresses. And, in the Magento backend, the store administrator cannot place an order through the Express Checkout method of payment as it is unavailable from here as well.

Except for the configuration details, there are some aspects of PayPal Express Checkout that you should be aware of when setting it up:

❖ Saving the customer's billing address

❖ Order transactions

❖ Billing Agreements

❖ Settlement Reports

Configuring PayPal Express Checkout

To enable the PayPal Express Checkout payment method:

1. Log in to the Magento admin panel.

2. Navigate to **System** > **Configuration** > SALES > **Payment Methods** and select the website for which the payment method is to be enabled.

3. Under PayPal Express Checkout, click the **Configure** link for PayPal Express Checkout. The options are grouped under two main headings Required PayPal Settings and Basic Settings – PayPal Express Checkout.

   Note: After you have enabled and configured Express Checkout in the scope of an All-in-one solution, such as Payments Pro or Payments Advanced, configuring the standalone PayPal Express Checkout becomes unavailable.

4. Under Required PayPal Settings configure the following options:

   ❖ Populate the **Email Associated with PayPal Merchant Account** field.

   ❖ In the **API Authentication Methods** drop-down menu, choose between **API Signature** and **API Certificate**.

   ❖ In the **API Username**, **API Password**, and **API Signature** fields, specify the API username, password, and signature provided by the PayPal payment system.

   *Note: You can get your PayPal API credentials at the PayPal website. Click the **Get Credentials from PayPal** button to open the PayPal website page. You need to log in to your account and click the **API Credentials** link to get the credentials.*

   ❖ You can activate the test mode for the PayPal payment system merchant account in the **Sandbox Mode** field. The test mode helps testing the integration of Magento with the PayPal payment system. Transactions that are submitted while the account is in test mode are not actually submitted to the credit card and electronic check processing networks, and credit card or bank accounts are not actually charged. Therefore, they do not have a valid transaction ID. After testing the integration is finished, the test mode must be turned off.

   ❖ To test the work of Magento and PayPal in sandbox mode, click the **Sandbox Credentials** button, log in to your sandbox test account, and click the API Credentials link to acquire the necessary information.

   ❖ In the **API Uses Proxy** field, indicate whether a proxy server is used for establishing the connection between Magento and the PayPal payment system. If you select **Yes**, two additional fields for specifying the proxy host and port become available.

   ❖ In the **Enable this Solution** select **Yes** to enable the payment method.

5. Under the Basic Settings – PayPal Express Checkout configure the following options:

   ❖ In the **Title** field, specify the name of the payment method that will be displayed to customers in the Payment Information section of the shopping cart Checkout page. This parameter can be set up for each store view.

❖ When deciding to use a number of payment methods, in the **Sort Order** field determine the order in which this payment method will be displayed in the Payment Information section of the shopping cart Checkout page in the frontend.

❖ In the **Payment Action** field, choose the way payments will be authorized in the PayPal payment system and the entities that will be created in the Magento backend as a result of the payment procedure. The following options are available:

   o **Authorization:** After the customer places an order in the web store, PayPal authorizes the order amount in the customer's PayPal balance. Customers cannot use the authorized amount from their buyer account because it is reserved by PayPal until the merchant captures it. The store administrator can capture online the authorized order amounts from the buyer accounts both in the Magento backend and in the PayPal merchant account. With the Authorization payment action selected in the Magento configuration, only an order is created in the backend of your web store after the customer places an order through Express Checkout. Merchants select this payment action when, for example, the products from an order are shipped before capturing the payment or if there is a need not to accept payments immediately.

   o **Sale**: The order amount is authorized by PayPal and the funds are captured from the buyer account and are transferred to the merchant account at PayPal. Merchants select this payment action if they are sure that the transaction and the shipment of products from orders can be immediately fulfilled. With the Sale payment action, when the customer places an order through Express Checkout, a corresponding transaction is created in the PayPal merchant account and both an order and an invoice are created in the backend of your web store.

   o **Order**: The amount of the order is neither captured nor authorized in the customer's balance, bank account, or credit card at PayPal. The Order payment action represents an agreement between the PayPal payment system and the merchant which enables the latter to capture one or more amounts up to the "ordered" total from the customer's buyer account, over a maximum of 29 days. It means that after the funds are "ordered," the merchant can capture them anytime during the following 29 days. Capturing of the order amount can be done only from the Magento backend, by creating one or multiple invoices.

❖ In the **Shortcut on Shopping Cart** field, choose whether the customer can use the express checkout button on the shopping cart page and in the mini shopping cart. Clicking the button redirects the customer to the PayPal website where the shopping cart price information can be reviewed.

❖ In the **Shortcut on Product View** field, choose whether the express checkout button is available on the product view page.

❖ In the **Payment Applicable From** field, choose the countries whose residents can use this method of payment. Choose between the following options:

   o **All Allowed Countries**: Customers from the default countries list can use this payment method.

> o **Specific Countries**: Only customers whose billing address includes one of the countries listed in the **Countries Payment Applicable From** field that becomes available can use this payment method. The field works as a filter, so that this payment method will only be listed for those customers whose billing address is one of these selected countries.

❖ In the **Debug Mode** field, specify whether communications with the payment system are written into the log file.

❖ In the **Enable SSL verification** field decide whether you want to enable host authenticity verification.

❖ In the **Transfer Cart Line Items** field, choose whether shopping cart items, their prices, quantities, and subtotal amounts, are transferred separately line by line or are transferred as one whole with their price total value. If the parameter is enabled, the **Transfer Shipping Options** field becomes available.

❖ Enable the **Transfer Shipping Options** field to allow the customer change the shipping address and the shipping rate on the PayPal website.

❖ Choose whether a dynamic or a static PayPal Acceptance Mark image will be displayed next to the payment method in the Payment Information section of the shopping cart Checkout page. Choose between the following options in the **Shortcut Buttons Flavor** field:

> o **Dynamic**: The appearance of dynamic images is dynamically changed by PayPal. When signing up for a PayPal campaign, the appearance of the image dynamically changes during the campaign based on the parameter information that you add to the image URL.
>
> o **Static**: The static images cannot be changed dynamically. When participating in a PayPal campaign, the image code must be manually updated to change the image displayed and restore the default image when the campaign is over.

Note: *For better image management, we recommend that you replace static images in your system with dynamic ones.*

❖ If the **Enable PayPal Guest Checkout** field is set to **Yes**, Magento customers who are not registered with PayPal can perform the payment without registering with PayPal. After a guest customer clicks the **Check out with PayPal** button and is redirected to the PayPal website, he or she may continue checking out as a guest by clicking the corresponding **Don't have a PayPal account?** link located near the **Log in to PayPal** section. In this case, the customer needs to specify credit card information and a billing address. After PayPal validates the credit card information, the customer can proceed to review the payment information and perform the actual payment. If the field is set to **No**, the customer needs to register with PayPal prior to proceeding to the payment.

❖ Specify whether the customer can sign a billing agreement with your web store in the PayPal payment system when there are no active billing agreements available in the customer account. Choose between the following options in the **Billing Agreement Signup** field:

   o **Auto**: The customer can either sign a billing agreement during the Express Checkout flow or use another method of payment.

   o **Ask Customer**: The customer can decide whether to sign a billing agreement during the Express Checkout flow.

   o **Never:** The customer cannot sign a billing agreement during the Express Checkout flow.

Note: *The store owner needs to apply to the PayPal Merchant Technical Support for enabling the billing agreements feature. The Billing Agreement Signup parameter must be enabled only after PayPal confirms that billing agreements are enabled for your merchant account.*

❖ Optionally configure options under PayPal Billing Agreement Settings. See "Billing Agreements," page 223, for details.

❖ Optionally configure options under Settlement Report Settings. See "Generating a PayPal Settlement Report," page 227, for details.

❖ Under Frontend Experience Settings configure the following options:

   o In the **PayPal Product logo** field select the PayPal logo which will be displayed on the home and catalog pages of your store.

   o Use the options grouped under PayPal Merchant Pages Style heading to configure customize the store-related fragment of the PayPal page displayed to customers who choose to pay using PayPal Express Checkout. To see the hint for an option click the question mark icon next to the field.

6. Click the **Save Config** button to save the current settings.

Saving the Customer's Billing Address

Prior to version 1.11 of Magento Enterprise Edition, the PayPal Express Checkout payment method did not allow saving the complete billing address for the order in Magento. Starting with version 1.11, this restriction was removed and a complete billing address can be saved in a Magento order when the PayPal Express Checkout payment method is used by a customer. The billing address can be received from PayPal, and can be edited by the customer.

If you want to receive the billing address of a customer from PayPal for customers using the PayPal Express Checkout payment method, you need to take the following steps:

1. Enable the corresponding functionality is enabled in your PayPal merchant account. Contact PayPal technical support for details.

2. In the Magento Admin Panel, under **System** > **Configuration** > SALES > **Payment Methods** > **PayPal Express Checkout,** in the **Require Customer's Billing Address** field select **Yes,** and save the configuration. If you want to request the customers billing address only for orders which contain downloadable and/or virtual products, in the **Require Customer's Billing Address** field select **For Virtual Quotes Only**.

When customers choose to pay using PayPal Express Checkout, they are redirected to PayPal. Having logged in to PayPal and reviewed the payment information, they are redirected back to the store, to the Order Review page, where they choose the shipping method, edit the billing and shipping addresses, and place the order.

> *Note: If a billing address cannot be received from PayPal because of your configuration or due to any other reasons, the billing address fields on the Order Review page are prepopulated with the shipping address values. A customer can edit them if necessary.*

Figure 180 illustrates the Order Review store page when a customer uses the PayPal Express Checkout payment method.

Figure 180. Order Review Page with PayPal Express Checkout Payment Method

If a customer leaves the billing and shipping addresses without changes, the **PLACE ORDER** button is enabled when the customer selects the shipping method in the **Shipping Method** field.

If the customer edits the billing or shipping address, the **PLACE ORDER** button is disabled. The customer needs to click the **UPDATE ORDER DATA** button first. The system will update the information, including the available shipping methods, and the **PLACE ORDER** button will be enabled.

After the customer clicks **PLACE ORDER**, the order is created in Magento, and PayPal performs the related transaction(s). The complete billing and shipping addresses are saved in the order record in Magento.

Order Transactions in PayPal Express Checkout

Magento includes the option of using the Order payment action for the PayPal Express Checkout payment method. When a store customer submits an order, having paid using the PayPal Express Checkout payment method, for which the Order payment action is set, the funds on the customer's card are authorized. If the authorization times out before you capture all payment, the authorization is voided, and a new authorization and capture are conducted when you create an invoice. Only the amount equal to the invoice total is authorized and captured. The maximum number of these authorizations for one order, and the periods for which the first authorization and the order in general stay valid, depend on your PayPal merchant account settings. These parameters need to be specified in the Magento Admin Panel as well. Capturing can be done only from the Magento Admin Panel, by creating one or more invoices.

Situations in which using the Order transaction may be appropriate include the following:

❖ Back orders, in which available items are sent immediately, and the remaining part of the order is sent when available; this may include more than two shipments

❖ Split orders, in which ordered items are sent in more than one shipment, perhaps to different addresses, and you want to collect a payment for each shipment

❖ Drop shipments, which are shipments from other vendors for which you accept the payment

Using the Order payment action does not influence the checkout process for store customers.

Configuring the Payment Action for the PayPal Express Checkout

To change the payment action settings for the PayPal Express Checkout payment method:

1. In the Magento Admin Panel, select **System** > **Configuration** > SALES > **Payment Methods**. Configuration can be done either on the global or website level, so in the **Current Configuration Scope** drop-down menu located in the upper left part of the page, leave **Default Config** or select the desired website.

2. In the **PayPal Express Checkout** field set, in the **Payment Action** drop-down menu, select **Order**.

3. Configure these additional settings, which correspond to settings in your PayPal merchant account:

❖ **Authorization Honor Period (days):** Defines how long the primary authorization stays valid. The value should be equal to the corresponding value in your PayPal merchant account. The default value in your PayPal merchant account is 3. To increase this number you need to contact PayPal. The authorization becomes invalid at 11:49 p.m., U.S. Pacific Time, of the last day.

❖ **Order Valid Period (days):** Defines how long the order remains valid. When the order becomes invalid, you can no longer create invoices for it. Specify the value equal to the Order Valid Period value in your PayPal merchant account. The default value in your PayPal merchant account is 29. To change this number, you need to contact PayPal.

❖ **Number of Child Authorizations:** Defines the maximum number of authorizations for one order. That is, the maximum number of the online partial invoices you can create for one order.

The number in this field should be equal to the corresponding setting in your PayPal merchant account. The default number of child authorizations in your PayPal account is 1. To increase this number, you need to contact PayPal.

4. Click **Save Config** in the upper-right corner of the page to save the new configuration.

Managing Orders Paid Using PayPal Express Checkout with Payment Action Set to Order

When the store customer submits the order, having paid using the PayPal Express Checkout payment method, for which the Order payment action is set, the order (with Processing status) is created in the Admin Panel. Two transactions are created for this order: one with type **Order** and one with type **Authorization**. See Figure 181.

Figure 181. Order Transaction for PayPal Express Checkout

The funds on the customer's account are put on hold, and you can capture the payment only from the Magento Admin Panel. To capture, you need to create an online invoice. When you choose to create an online invoice, Magento determines whether the number of days passed from the first authorization exceeds the **Order Valid Period** value. If more days have passed, you cannot create an online invoice for this order.

If the order is valid, Magento determines whether the first authorization is valid, comparing the number of days passed with the **Authorization Honor Period** value. If the authorization is valid, the necessary sum is captured; the rest is left on hold, and the number of captures is not limited. If the authorization is not valid anymore, it is voided. A new authorization and capture are created, but for the invoice total (not the order total). From this moment, each time you create an online invoice for this order, a new authorization and capture will be conducted only for invoice totals.

Also, Magento will determine whether the number of the conducted captures is equal to the **Number of Child Authorizations** value each time. If the number specified there is already reached, creating online invoices for the order will not be possible.

If you click the **Void** button on the order view page, the Order transaction is voided. After this, no online invoice can be created for the order.

> **Note**: *PayPal provides an option of capturing an amount larger than was ordered. However, this option is not supported in Magento.*

Billing Agreements

The Billing Agreement functionality enables customers to sign an agreement with the payment system and eases the process of checkout because customers do not need to specify payment information again and again. During the shopping cart checkout, the customer can simply choose a billing agreement as a payment method and based on its number; the payment system will charge the customer's account.

Billing Agreements Overview

With the Billing Agreements functionality, individual customers purchasing products from a web store on regular basis can place sales orders through an external payment system without specifying their credit card information again and again; they can simply grant the authorization to the payment system once. With Billing Agreements, customers do not need to enter credit card information in Magento and they are not redirected to the external payment system, although the actual payment is performed there.

After the customer signs a billing agreement with the store on the PayPal side, PayPal provides the store and the customer with the reference ID for the signed billing agreement. The reference ID is a unique number assigned to a billing agreement by the payment system. During subsequent purchases, the customer selects the billing agreement as the payment method and uses the billing agreement reference ID. No other payment information is required for placing an order. The payment system verifies billing agreement information and whether the payment can be fulfilled by the reference ID specified by the customer. After the payment system performs the payment transaction, the reference ID is returned to the Magento system and an order is placed.

> **Note:** *Currently Magento Enterprise Edition supports using only the PayPal Express Checkout payment method for the Billing Agreement functionality. Before enabling billing agreements, you need to contact the PayPal Merchant Technical Services for enabling the billing agreements (reference transactions) for your PayPal merchant account.*

After a billing agreement is signed with PayPal, the store owner can charge the customer's PayPal account directly.

After the Billing Agreement functionality is enabled in the Magento backend configuration (**System** > **Configuration** > SALES > **Payment Methods**> **PayPal Express Checkout > Advanced Settings > PayPal Billing Agreement Settings** or in the scope of configuring PayPal Express Checkout for All-in-one PayPal solutions, like PayPal Payments Advanced), billing agreements can be created in the following two ways:

- ❖ Creating a billing agreement from the customer account in the frontend: The customer uses the Billing Agreement wizard which redirects him or her to the PayPal website, where a billing agreement is signed.

> **Note:** *A billing agreement can be created from a customer account only if the **Allow in Billing Agreement Wizard** parameter is enabled in the Magento backend.*

❖ Submitting a billing agreement with an order: After choosing the corresponding payment method, the customer is redirected to the PayPal website, where a billing agreement is signed.

Configuring Billing Agreements

To enable and configure PayPal Express Checkout Billing Agreements:

> **Note:** *The Billing Agreements payment method can also be enabled from the PayPal All-in-One solution.*

1. In the Admin Panel, navigate to **System** > **Configuration** > SALES > **Payment Methods.**

2. Locate and expand **PayPal Express Checkout > Advanced Settings > PayPal Billing Agreement Settings**.

3. Set the **Enabled** field to **Yes**.

> **Note:** *The PayPal Billing Agreement payment method becomes available after the customer creates any billing agreements in her or his customer account.*

4. In the **Title** field, specify the name of the billing agreement payment method that will be available to customers on the **Billing Agreements** tab of the customer account and in the Payment Information section of the shopping cart Checkout page.

5. If more than one payment method is enabled, in the **Sort Order** field specify the order of the Bank Transfer payment method to appear in the Payment Information section both in the frontend and in the backend.

6. In the **Payment Action** field, choose the way payments will be authorized in the PayPal payment system and the entities that will be created in the backend as a result of the payment transaction. The following options are available:

   ❖ **Authorization:** Payments are only authorized on the PayPal side and only an order is created in the backend of your store. You will need to log on to the merchant account on the PayPal website and capture the transaction.

   ❖ **Sale:** A payment is authorized and captured on the PayPal side and as a result an order and an invoice are created in the backend of your store.

7. The **Payment from Applicable Countries** parameter enables you to select which customers can use this payment method. **All Allowed Countries** means that all customers from the default countries list can use this payment method. If you have not already configured the default list, it can be done by navigating to **System > Configuration >** GENERAL **> General > Countries Options** and selecting each country you want to add from the **Allow Countries** list. If you want to further reduce the number of countries from which your customers will be allowed to use this payment method, select **Specific Countries**. This means that only customers whose billing address includes one of the countries listed in the **Payment from Specific Countries** list below can use this payment method.

8. In the **Debug Mode** field, specify whether communications with the payment system are written into the log file.

   Note: *To prevent fraud, the credit card information is not written to the log file.*

9. In the **Transfer Cart Line Items** field, choose whether shopping cart lines (product names, their price, quantities, and row total amounts) are transferred separately line by line, or transferred as one whole with the total price value.

10. The customer is able to create billing agreements from the customer account if the **Allow in Billing Agreements Wizard** option is enabled in the configuration. The **Billing Agreements** tab in the customer account provides the wizard which redirects the customer to the PayPal website where a billing agreement is signed.

In the Express Checkout settings, you should also specify what options for signing a billing agreement your customers will have during the shopping cart checkout. Choose from the following options in the **Billing Agreement Signup** field:

❖ **Auto:** The customer will not be notified that he or she will have to sign a billing agreement with the store when redirected to her or his PayPal customer account. After reading the agreement, the customer may choose whether to sign a billing agreement or to return to your store and check out with another payment method.

❖ **Ask Customer:** When selecting the **PayPal Express Checkout** payment method during the shopping cart checkout, the customer will have the choice of either checking out through the normal PayPal process, or by checking out the order through PayPal and signing a billing agreement on the PayPal side.

❖ **Never**: The customer will not be able to sign a billing agreement when submitting a sales order through the PayPal Express Checkout payment method. However, the customer will still be able to create a billing agreement from the customer's account and later use these during the checkout process.

Creating a Billing Agreement from a Customer Account

A customer can create a billing agreement by signing in to her or his customer account on your website, selecting the billing agreement payment method, and starting the Billing Agreement wizard located on the **Billing Agreements** tab. When a billing agreement is created, it is submitted to the PayPal payment system and is recorded to the customer account with its reference information. The number of billing agreements that a customer can create in the customer account is not limited and depends only on the customer's needs. The customer can also cancel some or all of the billing agreements on the Billing Agreement page of the customer account.

> **Note:** *Billing agreements available in the customer account can be either Active or Canceled. Canceled billing agreements cannot be reactivated. .*

When checking out products from the shopping cart, a customer who has already signed a billing agreement with PayPal can choose the **PayPal Billing Agreement** payment method in the Payment Information section of the checkout page and select the necessary billing agreement reference ID from the list. When the customer clicks the **Place Order** button, the billing agreement reference ID and sales order payment details are transferred to the PayPal payment system. After the payment system confirms the payment, a sales order is created in Magento.

> **Note:** *If the payment action selected for the PayPal Billing Agreement payment method in the backend configuration is Sale, as soon as the customer places an order, the PayPal payment system transfers the order amount from the customer's account to the merchant's one and both a sales order and an invoice are created in Magento. With the Authorization payment action selected, only a sales order is created.*

Creating a Billing Agreement with an Order

If the customer purchasing items from the web store does not yet have a billing agreement with PayPal, she or he can choose the **PayPal Express Checkout** method of payment, select the **Sign a billing agreement to streamline further purchases with PayPal** check box, and be redirected to the PayPal payment system where the customer payment information is available and the billing agreement can be signed. After a billing agreement with the store is signed, the customer is redirected back to the Magento frontend, where an order is placed. A corresponding record appears in the billing agreements list.

Additionally, the customer who has no billing agreements in the customer account can also sign a billing agreement from the mini shopping cart or from a product view page by clicking the **Check out with PayPal** button, that is, by using the PayPal Express Checkout payment method. This opens a dialog box that gives the customer the option to sign a billing agreement with the PayPal payment system. If the customer cancels creating a billing agreement, the order is created through the normal PayPal payment process.

> **Note:** *If the customer has one or more billing agreements, the customer can still create a new billing agreement from the customer's account, but will not be able to sign a new billing agreement using the PayPal Express Checkout payment method.*

When the customer signs a billing agreement during the order checkout, PayPal creates a payment transaction through the PayPal Express Checkout payment method selected by the customer (that is, a sales order is created in Magento), and a billing agreement reference ID which is sent to the customer and the store. The currently created order is not related to the billing agreement that is signed. Related billing agreement-order records are created in Magento the next time that the customer selects this billing agreement as a payment method and places an order.

Managing Billing Agreements

The store administrator can take a number of actions to manage customer's billing agreements both in the Customer and Sales areas.

❖ **Sales Management Area:** The list of all billing agreements for all customers is available under **Sales** > **Billing Agreements**. Here, the store administrator can filter the records by the customer or billing agreement information including billing agreement reference ID, status, and creation date. A specific record provides general information about the selected billing agreement and about all sales orders that relate to it.
The store administrator can view, cancel, or delete a customer's billing agreements in the Sales Management area. Billing agreements can be canceled or deleted by clicking the corresponding buttons located in the upper right part of the Billing Agreement page. An already canceled billing agreement can only be deleted by the store administrator.

❖ **Customer Management Area:** Billing agreements created by a single customer can be seen on the **Billing Agreements** tab of the customer account page in the backend (**Customers** > **Manage Customers**). From here, the store administrator can open a required billing agreement to view its general information and sales orders relating to it, cancel a billing agreement, or delete it.

Creating a Sales Order with a Billing Agreement

On a customer's request, the store administrator can create a sales order and after filling in all required information for order currency, items, billing and shipping addresses, she or he needs to select the **PayPal Billing Agreement** payment method and specify the reference number for a specific billing agreement. When the order is submitted, the billing agreement reference ID is transferred to the PayPal payment system and, if the payment is authorized, an order is created in Magento.

Generating a PayPal Settlement Report

The PayPal Settlement report provides the store administrator with the information about each transaction that affects the settlement of funds.

> *Note: Prior to generating settlement reports, the store administrator needs to contact the PayPal Merchant Technical Services for creating an SFTP user account, enabling settlement reports generation, and enabling SFTP at PayPal business account.*

After configuring and enabling settlement reports in the PayPal merchant account, Magento will start generating reports during the following 24 hours.

To configure PayPal Settlement Reports:

1. In the admin panel, click **System** > **Configuration**.

2. Under SALES, click **Payment Methods** and then locate and expand **PayPal Express Checkout > Advanced Settings > Settlement Report Settings** (or in the Express Checkout settings within the All-in-one PayPal solution).

3. Under **SFTP Credentials**, specify the login and the password to connect to the PayPal SFTP server which will be used for transferring settlement transaction data. The login and the password are provided by the PayPal SFTP server administrator.

4. In the **Sandbox Mode** field, choose whether you will be using a sandbox for testing settlement transaction reports or live environment. If you choose **No**, two additional fields for specifying the location of reports on the server become available.

5. In the **Custom Endpoint Hostname or IP-Address** field, specify the hostname or the IP address of the server where the reports are stored. The field defaults to the endpoint hostname `reports.paypal.com`. The port number must be separated with a colon from the hostname (for example, `test.example.com:5224`).

6. In the **Custom Path** field, specify the path to the folder where settlement reports are stored on the PayPal side. The field defaults to `/ppreports/outgoing`.

7. PayPal settlement reports are automatically fetched from the PayPal payment system if this is set up in the **Enable Automatic Fetching** field located under Scheduled Fetching. When the field is set to **Yes**, two additional fields for setting up the frequency of fetching settlement reports from PayPal appear.

8. In the **Schedule** field, choose whether settlement reports will be fetched from PayPal daily, or every 3, 7, 10, 14, 30, or 40 days. Specify the time of day when settlement reports will be fetched in the **Time of Day** fields.

> *Note:* *The Schedule and Time of Day parameters are global (set up for all websites).*
>
> *Tip:* *Keep in mind that after settlement reports are delivered to the SFTP server, they are only available for 40 days there; after this period of time, the reports are archived. You can access archived reports only by special request to PayPal Account Management.*

9. Click the **Save Config** button to save the PayPal settlement reports configuration.

Viewing a PayPal Settlement Report

The list of reports that have been fetched from PayPal is available in the backend under **Reports** > **Sales** > **PayPal Settlement Reports**.

Each report contains the following information:

- ❖ **Report Date**: The date when the settlement report was generated.
- ❖ **Merchant Account**: The encrypted merchant account number generated by PayPal.
- ❖ **Transaction ID**: The identification of a transaction of the money moving event. Transaction ID is generated by PayPal and cannot be changed by the merchant.
- ❖ **Invoice ID**: The identification of an invoice generated within Magento. The field can be populated with either an invoice ID sent with the capture request or with the value of the invoice ID (if any) from the authorizing transaction.
- ❖ **PayPal Reference ID**: The identification of a related, pre-existing transaction or event.
- ❖ **Event Code***:* The code assigned to the transaction according to the event that has initiated it. Among these can be website payments standard payment, express or direct checkout API, preapproved payment, subscription payment, and so on.

❖ **Initiation Date**: The date and time the transaction was initiated.

❖ **Completion Date**: The date and time the transaction was completed.

❖ **Gross Amount**: The amount of the payment between the two parties and before fees.

❖ **Fee Amount:** The amount of fee associated with the settlement. All transaction fees are included in this amount. Fees are never amortized across several transactions.

The store administrator can fetch the most recent settlement reports by clicking the **Fetch Updates** button located in the upper right part of the page. After clicking it, a dialog box appears, stating that the system will connect to the PayPal SFTP server to fetch the reports. When all recent reports are added to the list, the Infolog message appears, stating the number of reports fetched.

Opening a report for a required transaction, the store administrator can view the following additional information:

❖ **PayPal Reference ID Type:** One of the following reference codes:

o   Order ID
o   Transaction ID
o   Subscription ID

❖ **Preapproved Payment ID**

❖ **Custom**: The text entered by the merchant on the transaction in PayPal

❖ **Transaction Debit or Credit:** The direction of money movement of gross amount

❖ **Fee Debit or Credit:** The direction of money movement for fee

21.7   PayPal Payflow Pro (Includes Express Checkout)

PayPal Payflow Pro General Concept

The Payflow Pro gateway, formerly known as Verisign, is a payment method available for customers of the USA, Canada, Australia, and New Zealand. Similar to other PayPal payment methods that are provided in Magento, Payflow Pro Gateway requires that the store owner have a merchant account at PayPal. Payflow Pro gateway links the merchant account at PayPal and the merchant's website and acts both as a gateway and a merchant account. With the Payflow Pro Gateway payment method, payments are processed directly on the merchant websites and customers are not redirected to PayPal. Unlike other PayPal payment methods, the pricing for using the Payflow Pro Gateway method of payment is fixed no matter how many transactions are submitted. That is, merchants pay a fixed monthly fee plus a fixed fee for each transaction regardless of their number.

Payflow Pro Gateway does not require that web store customers have buyer accounts at PayPal; but depending on the merchant country, customers may use their PayPal buyer accounts for paying through the gateway.

The Payflow Pro Gateway payment method implies that customers specify their credit card information during the shopping cart checkout, without leaving the store checkout page and without PayPal hosted forms. Additionally, payments are accepted through the Payflow Pro Gateway at the time when an order is placed.

Configuring Payflow Pro Gateway

To enable and configure the Payflow Pro payment method:

1. In the admin panel, navigate to **System** > **Configuration** > SALES > **Payment Methods** and then select the website for which the payment method is to be enabled.

2. Make sure that your merchant location is specified correctly in the **Merchant Country** field under Merchant Location.

3. Under **PayPal Payment Gateways**, click the **Configure** link for PayPal Payflow Pro (Includes Express Checkout). Options are grouped under three main headings: Required PayPal Settings, Basic Settings – PayPal Payflow Pro, and Basic Settings – PayPal Express Checkout. See Figure 182.

Figure 182. Choosing to Configure PayPal Payflow Pro

4. Under Required PayPal Settings, configure the following options:

   ❖ If the Payment Bridge web application is set up for your Magento installation, enable the **Use Via Payment Bridge** parameter so that payments placed using this payment method are processed with PayPal through a secure PA-DSS compliant payment application. If you choose to use Payment Bridge, the PayPal Payflow Pro method should be enabled and configured in the Payment Bridge application. In the Magento Admin Panel you need to configure only settings grouped under Required PayPal Settings. See "Magento Payment Bridge," page 463, for details about Payment Bridge.

   ❖ Filling the **Email Associated with PayPal Merchant Account** field is optional.

   ❖ In the **Partner**, **User**, **Vendor**, and **Password** fields, enter the credentials of your Payflow Pro merchant account.

❖ Choose whether to activate the test mode for the PayPal payment system merchant account in the **Test Mode** field. The test mode helps testing the integration of Magento with the PayPal payment system. Transactions that are submitted while the account is in the test mode are not actually submitted to the credit card and electronic check processing networks, and credit card or bank accounts are not actually charged. Therefore, they do not have a valid transaction ID. Once you have finished testing the integration project, the test mode must be turned off.

❖ In the **Use Proxy** field, decide whether a proxy server is used for establishing the connection between Magento and the PayPal payment system. When selecting **Yes**, two additional fields for specifying the proxy host and port become available. A third party server can be used to relay the traffic, if there is no direct access to the PayPal server.

❖ In the **Enable this Solution** select **Yes** to enable the PayPal Payments Pro and Express Checkout payment methods.

5. Under Basic Settings – PayPal Payflow Pro configure the following options:

❖ In the **Title** field, specify the name of the payment method that will be displayed to customers in the Payment Information section of the shopping cart Checkout page. This parameter can be set up for each store view.

❖ When deciding to use a number of payment methods, in the **Sort Order** field determine the order this method will be displayed in the Payment Information section of the shopping cart Checkout page in the frontend.

❖ In the **Payment Action** field, choose the way payments will be authorized in the PayPal payment system and the entities that will be created in the backend as a result of the payment procedure. The following options are available:

  o **Authorization:** Payments are only authorized in the PayPal payment system and only an order is created in the backend of your store. You need to log on to the merchant account on the PayPal website and capture the transaction.

  o **Sale**: A payment is authorized and captured in the PayPal payment system and as a result a corresponding transaction is created in the PayPal merchant account and an order and an invoice are created in the backend of your web store.

❖ Under **Credit Card Settings**, in the **Allowed Credit Card Types** field, select the allowed types of credit cards that can be used when paying with the PayPal Payments Pro Payflow method of payment. In the frontend, the customer can choose among the credit card types specified in this list. These will be provided in the Payment Information section of the Checkout page.

❖ Choose customers of which countries can use this method of payment in the **Payment Applicable From** field. Choose between the following options:

  o **All Allowed Countries:** Customers from the default countries list can use this payment method.

Note: *The default list of countries is defined in the* **Allow Countries** *field located under* **System** *>* **Configuration** *> GENERAL >* **General** *>* **Countries Options***.*

- o **Specific Countries**: Only customers whose billing address includes one of the countries listed in the **Countries Payment Applicable From** field that becomes available can use this payment method. The field works as a filter, so that this payment method will only be listed for those customers whose billing address is one of these selected countries.

❖ In the **Debug Mode** field, specify whether communications with the payment system are written into the log file. The credit card related information is not written to the log file in order to prevent credit card fraud.

❖ In the **Enable SSL verification** field decide whether you want to enable host authenticity verification.

❖ In the **Require CVV Entry** field, choose whether a credit card verification number must be specified by the customer when he or she enters credit card information during the shopping cart checkout. The Card Security Code (CSC) provides an additional security measure to prevent card misuse within online transactions. (The Card Security Code is also known as the Card Verification Value.)

❖ Under **3D Secure**, set the **3D Secure Card Validation** field to **Yes** to specify that credit cards will be verified through the Centinel 3D Secure system. If the parameter is enabled, the following two fields become available.

Note: *The 3D Secure functionality used for credit card verification must first be set up under* **System** *>* **Configuration** *> SALES >* **Payment Services** *>* **3D Secure Credit Card Verification***. In this case, credit card validation will be performed by the 3D Secure service provided by CardinalCommerce when customers choose to pay with the Payflow Pro Gateway payment method during the checkout.*

- o In the **Severe 3D Secure Card Validation** field, choose whether severe validation will be applied to credit cards through the 3D Secure service. Severe credit card validation removes the chargeback liability on merchant.
- o In the **Centinel API URL** field, enter the URL provided by Centinel which will establish the connection with the Centinel system for credit card validation.

❖ For details on PayPal Settlement Report and its settings see "Generating a PayPal Settlement Report," page 227.

6. Under Basic Settings PayPal Express Checkout configure the options of the PayPal Express Checkout Payflow Edition payment method. This edition of the PayPal Express Checkout has fewer options than standalone Express Checkout. But the existing options coincide with the similar options of the Express Checkout. See "PayPal Express Checkout," page 214, for more information.

7. To save the configuration click **Save Config**.

Working with Payflow Pro Gateway

After customers add products to their shopping carts and proceed to the checkout, they specify their billing and/or shipping addresses and the shipping method. Then, in the Payment Information section of the Checkout page, they can select the Payflow Pro payment method, enter the type of credit card, its number, expiration date, and the card verification number. Customers are not redirected to the PayPal website when they choose to pay with Payflow Pro Gateway. Depending on the payment action selected in the configuration of the payment method, either a sales order or a sales order and an invoice are created under **Sales** > **Orders**.

Orders paid with Payflow Pro Gateway can be processed online only from Magento. Here, you can submit an online invoice and as a result a corresponding transaction and an invoice will be created. Regarding order amount refunds, you can also submit them online from the created invoice.

> **Note:** *Partial invoices are not available when using the Payflow Pro Gateway payment method. The* **Qty to Invoice** *field is unavailable for editing. The partial refund is unavailable as well.*

You can view all Payflow Pro Gateway transactions in the PayPal manager at https://manager.paypal.com/ .

21.8 The PayFlow Link Payment Method

Magento Enterprise Edition includes the option of using the PayFlow Link payment method for PayPal. PayFlow Link is available for merchants in the United States and Canada only; this method requires a Payflow merchant account.

This method passes the information about the card, entered by the customer, directly to PayPal; it is never stored in Magento system. A customer does not need to have a PayPal account to use this method.

The PayFlow Link payment method is not available for orders created from the Admin Panel.

> **Note:** *You can find more information about the PayFlow Link by PayPal here: https://www.paypal.com/cgi-bin/webscr?cmd=_payflow-link-overview-outside&bn_r=m*

Configuring the PayFlow Link Payment Method

To use the PayFlow Link feature, you should have a separate PayFlow Link account for each website.

Configuring the PayFlow Link method for each website is a two-step procedure:

1. Set the options in the Magento Admin Panel.

2. Set the required options of the PayFlow Link account on the PayPal Manager website.

Setting the PayFlow Link Payment Method Options in the Magento Admin Panel

To configure the PayFlow Link method in the Magento Admin Panel:

1. In the admin panel, click **System** > **Configuration**.

2. Select the desired website from the **Current Configuration Scope** drop-down menu in the upper-left corner of the page.

3. Under SALES in the left column, click **Payment Methods.** In the **Merchant Country** field select **United States** or **Canada**. If any other country is selected, the PayFlow Link settings are not displayed.

4. Under **PayPal Payment Gateways**, click **Configure** next to the PayPal **Payflow Link (Includes Express Checkout)** label. Options are grouped under three main headings: Required PayPal Settings, Basic Settings – PayPal Payflow Link, and Basic Settings – PayPal Express Checkout.
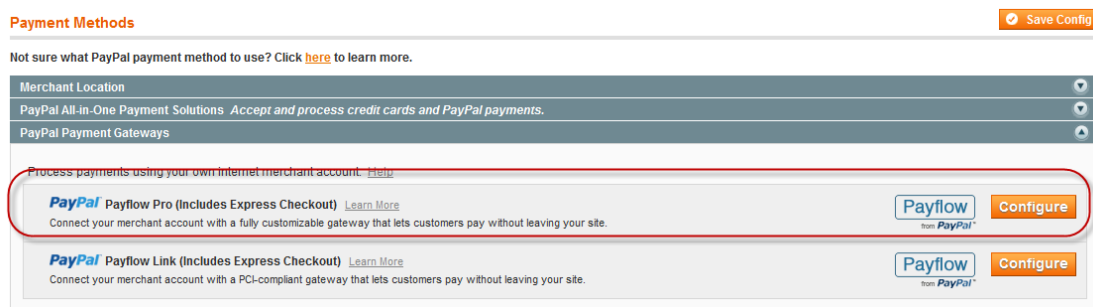
5. Under Required PayPal Settings > PayFlow Link, configure the following options:

   ❖ In the **Partner**, **Vendor, User** and **Password** fields, specify your Payflow Link account credentials.

   ❖ **Test Mode:** The test mode helps testing the integration of Magento with the PayPal payment system. Transactions that are submitted while the account is in the test mode are not actually submitted to the credit card and electronic check processing networks, and credit card or bank accounts are not actually charged. Therefore, they do not have a valid transaction ID. When you are finished testing the integration project, the test mode must be turned off.

   ❖ **Use Proxy:** Decide whether the proxy server is used for establishing the connection between Magento and the PayPal payment system. If you select **Yes**, two additional fields for specifying the proxy host and port are displayed.

6. In the **Enable Payflow Link** drop-down menu, select **Yes** to enable the payment method.

7. Under **Required PayPal Settings > Express Checkout**, configure the options of the Express Checkout. The Express Checkout included to the Payflow Link method can be enabled only if the Payflow Link method is enabled. For description of the Express Checkout settings, see "PayPal Express Checkout," page 214.

8. Under Basic Settings – PayPal Payflow Link, configure the following Payflow Link options:

   ❖ **Title:** In the **Title** field, specify the name of the payment method that will be displayed to the customer in the Payment Information section of the one-page checkout. This parameter can be set up for each store view.

   Note: *We recommend that you use the* PayPal *value in the* **Title** *field for each store view.*

   ❖ **Sort order:** When deciding to use a number of payment methods, in the **Sort Order** field determine the order this method will be displayed in the Payment Information section of the one-page checkout.

❖ **Payment Action:** Choose what type of transaction is conducted when the order is placed, and the entities that will be created in the backend as a result. The following options are available:

  o **Authorization:** The payment is authorized and only an order is created in the backend of your store.

  o **Sale:** The payment is captured on the PayPal side, and as a result an order and an invoice are created in the backend of your store.

❖ **Payment Applicable From:** Choose the countries whose residents can use this payment method. Choose between the following options:

  o **All Allowed Countries:** Customers from the default countries list can use this payment method.

  o **Specific Countries:** Only customers whose billing address includes one of the countries selected in the **Countries Payment Applicable From** field can use this payment method. The field works as a filter, so that this payment method will be listed for only those customers whose billing address is in one of these selected countries.

❖ **Debug Mode:** In the **Debug Mode** field, specify whether communications with the payment system are written into the log file. The log file for PayFlow Link payments is `payment_payflow_link.log`.

❖ **CVV Entry is Editable**: Choose whether the field for entering CVV number will be displayed.

❖ **Require CVV Entry**: Choose whether CVV field will be mandatory. The setting appears only if **CVV Entry is Editable** is set to **Yes**.

❖ **Send Email Confirmation**: Choose whether PayPal email confirmation will be sent to customers.

❖ **URL method for Cancel URL and Return URL**: The setting refers to the Cancel and Return URL displayed on the PayPal-hosted form.

9. The PayPal Billing Agreement Settings, Settlement Report Settings and Frontend Experience Settings and Basic Settings – PayPal Express Checkout sections are related to configuring the PayPal Express Checkout method, which is included with the PayPal Payflow Link payment methods.

10. Click **Save Config** in the upper-right corner of the page to save the settings.

Setting the PayFlow Link Account Options on the PayPal Manager Website

To make the necessary settings for the PayFlow Link account, you should log in to https://manager.paypal.com/ and select **Service Settings > Hosted Checkout Pages > Set Up**. You can find the information for setting the required options in the Magento Admin Panel. It is displayed in the **Required PayPal Settings > Payflow Link** section of the PayPal Payflow link configuration.

PayFlow Link Payment Method: Customer Experience

The store customer selects the PayFlow Link payment method on the Payment Information checkout step and clicks **Continue**. The Order Review step appears, where the **PAY NOW** button is available instead of the usual **PLACE ORDER** button. After the customer clicks **PAY NOW**, the PayPal-hosted form, where the credit card information can be entered, loads in the checkout page. The customer specifies the card information and clicks **Pay Now**. See Figure 183. If the transaction is successful, the customer is redirected to the order confirmation page.

Figure 183. PayFlow Link in the Frontend (PayPal-hosted Form)

The form also contains the **Cancel Payment** link. Clicking it redirects the customer to the Payment Information step of the checkout, where the payment method is selected.

If the transaction fails on any reason, an error message appears on the checkout page and the customer is directed to repeat the checkout process. These situations are handled on the PayPal side.

Order Processing When the PayFlow Link Payment Method Is Used

When a customer clicks the **PAY NOW** button on the last checkout step, the order is created in the Admin Panel with a Pending Payment status. After the customer enters the card information and clicks **Pay Now** in the form, uploaded from PayPal, the status of the order changes, depending on the response the system receives from PayPal:

❖ **Processing:** The transaction was successful

❖ **Pending Payment:** The system did not receive any response from PayPal

❖ **Canceled:** The transaction was not successful for some reason

❖ **Suspected Fraud:** The transaction did not pass some of the PayPal fraud filters and the system receives the response from PayPal that the transaction is under review by Fraud Service

If the customer clicks the **Cancel Payment** link in the form, the order status changes to Canceled. The new order is created when a customer proceeds with the checkout.

In general, processing of orders that are paid using the PayFlow Link payment method is the same as regular processing of orders that are paid with PayPal. An invoice, shipment, and credit memo (online/offline refund) can be created. Multiple online refunds are not available for the PayFlow Link payment method.

21.9 PayPal Payments Pro Hosted Solution (Includes Express Checkout)

In Magento Enterprise Edition, the PayPal Payments Pro Hosted Solution payment method is available for merchants from EU and APAC regions. The method's naming is different for different merchant countries:

- ❖ Japan: Website Payments Plus
- ❖ France: Integral Evolution
- ❖ Italy: PayPal Pro
- ❖ Spain: Pasarela integral
- ❖ Others: Payments Pro Hosted Solution

This method passes information about the credit card directly to PayPal without the customer being redirected to the PayPal website. The card information is never stored in Magento system, which can be preferable for customers for higher security. A customer does not need to have a PayPal account to use this method, but the store owner must have a Website Payments Pro account on PayPal.

The Website Payments Pro Hosted Solution payment method is available only in orders created from the frontend.

Configuring the Website Payments Pro Hosted Solution Payment Method in the Magento Admin Panel

To configure the Website Payments Pro Hosted Solution payment method:

1. In the admin panel, click **System** > **Configuration**.

2. Select the desired website from the **Current Configuration Scope** drop-down menu in the upper-left corner of the page.

3. Under SALES in the left column, click **Payment Method.** In the **Merchant Country** field, select the country that receives money, according to your PayPal account details..

4. Under PayPal Payment Solutions, click the **Configure** link for PayPal Payments Pro Hosted Solution (includes Express Checkout). The options are grouped under three main headings: Required PayPal Settings, Basic Settings – PayPal Website Payments Pro Hosted Solution, and Basic Settings – PayPal Express Checkout.

5. Under Required PayPal Settings, configure the following options:

❖ Populate the **Email Associated with PayPal Merchant Account** field.

❖ In the **API Authentication Methods** drop-down menu, choose between **API Signature** and **API Certificate**.

❖ In the **API Username**, **API Password**, and **API Signature** fields, specify the API username, password, and signature provided by the PayPal payment system.

> *Note: You can get your PayPal API credentials at the PayPal website. Click the **Get Credentials from PayPal** button to open the PayPal website page. You need to log in to your account and click the **API Credentials** link to get the credentials.*

❖ You can activate the test mode for the PayPal payment system merchant account in the **Sandbox Mode** field. The test mode helps testing the integration of Magento with the PayPal payment system. Transactions that are submitted while the account is in test mode are not actually submitted to the credit card and electronic check processing networks, and credit card or bank accounts are not actually charged. Therefore, they do not have a valid transaction ID. After testing the integration is finished, the test mode must be turned off.

❖ To test Magento and PayPal in sandbox mode, click the **Sandbox Credentials** button, log in to your sandbox test account, and click the API Credentials link to acquire the necessary information.

❖ In the **API Uses Proxy** field, indicate whether a proxy server is used for establishing the connection between Magento and the PayPal payment system. If you select **Yes**, two additional fields for specifying the proxy host and port become available.

❖ In the **Enable this Solution** select **Yes** to enable the payment method.

6. Under Basic Settings – PayPal Website Payments Pro Hosted Solution configure the following options:

❖ In the **Title** field, specify the name of the payment method that will be displayed to the customer in the Payment Information section of the one-page checkout. This parameter can be set up for each store view.

❖ When deciding to use a number of payment methods, in the **Sort Order** field determine the order this method will be displayed in the Payment Information section of the of the one-page checkout.

❖ **Payment Action:** Choose what type of transaction is conducted when the order is placed, and the entities that will be created in the backend as a result. The following options are available:

    o **Authorization:** The payment is authorized and only an order is created in the backend of your store.

    o **Sale:** The payment is captured at PayPal's side, and as a result an order and an invoice are created in the backend of your store.

❖ In the **Display Express Checkout in the Payment Information step** decide whether Express Checkout will be displayed in the list of available payment methods during one-page checkout.

❖ Choose the countries from which customers can use this method of payment in the **Payment Applicable From** field. Choose between the following options:

o **All Allowed Countries:** Customers from the default countries list can use this payment method.

> **Note:** *The default list of countries is defined in the **Allow Countries** field located under* **System** > **Configuration** > *GENERAL* > **General** > **Countries Options***.*

o **Specific Countries**: Only customers whose billing address includes one of the countries listed in the **Countries Payment Applicable From** field can use this payment method. The field works as a filter, so that this payment method will only be listed for those customers whose billing address is one of these selected countries.

❖ In the **Debug Mode** field, specify whether communications with the payment system are written into the log file. The log files are stored in the `magento/var/log` folder.

❖ In the **Enable SSL verification** field decide whether you want to enable host authenticity verification.

7. The PayPal Billing Agreement Settings, Settlement Report Settings, Frontend Experience Settings and Basic Settings – PayPal Express Checkout sections are related to configuring the PayPal Express Checkout method. The existing options coincide with the similar options of the Express Checkout. See "PayPal Express Checkout," page 214, for more information.

8. Click **Save Config** in the upper-right corner of the page to save the settings.

The Website Payments Pro Hosted Solution Payment Method: Customer Experience

Using the Website Payments Pro Hosted Solution payment method is similar to using the PayFlow Link payment method, which is described in "The PayFlow Link Payment Method," page 233. The only difference is that the PayPal-hosted form for entering the card information, which appears for the Website Payments Pro Hosted Solution payment method, does not contain the **Cancel Payment** link redirecting the customer to the Payment Information step of the checkout, where another payment method can be selected.

Handling Orders Paid with the Website Payments Pro Hosted Solution Payment Method

When the customer clicks the **Pay Now** button at the Order Review checkout step using the Website Payments Pro Hosted Solution payment method, the order with Pending status is created in the Admin. After the customer submits the form by clicking the **Pay Now** button in the PayPal-hosted form, the system receives the notification from the payment gateway using the Instant Payment Notification protocol (IPN). The status of the order is changed according to the notification received.

In general, processing of the order, that are paid using the Website Payments Pro Hosted Solution payment method is the same as regular order processing in Magento. An invoice, shipment, and credit memo (online/offline refund) can be created. Multiple online invoices and multiple online refunds are available for the Website Payments Pro Hosted Solution payment method as well.

21.10 PayPal Fraud Management Filter Support in Magento

Magento Enterprise Edition includes support for PayPal fraud management filters (FMFs), available for owners of Website Payments Pro PayPal accounts.

PayPal FMFs are intended to make it easier for merchants to detect and respond to fraudulent transactions. FMFs can be configured to flag, hold for review, or deny riskier payments. Magento order status values are changed according to these settings. It works for orders that are paid using the Express Checkout or Website Payments Pro payment methods. This section describes the processing of suspected fraudulent orders for different filter action settings.

> *Note: You can manage your fraud filters at* *https://manager.paypal.com/*.

"Review" Filter Action

If for a certain PayPal FMF you set the filter action to "Review," in the Magento Admin Panel the suspected order receives the status "Payment Review" when the order is placed.

You can review the order and approve, or cancel the payment in the Magento Admin Panel, or on the PayPal side. See Figure 184.

Figure 184. An Order That Needs Review, According to the FMF Settings

To accept the payment in the Magento Admin Panel, click the **Accept Payment** button in the upper-right corner of the page. The order status changes to "Processing," the corresponding information is added in the Comments History section of the order view, and the transaction gets the "Completed Payment" status on the PayPal side.

To deny the payment in the Magento Admin Panel, click the **Deny Payment** button in the upper-right corner of the page. The order status changes to "Canceled," the transaction is reverted, and funds are released on the customer's account. The corresponding information is added in the Comments History section of the order view.

When you click the **Accept Payment** or the **Deny Payment** buttons, no new transactions for the order are created.

If you change the status of the transaction on the PayPal site, you must click the **Get Payment Update** button in the upper-right corner of the Order page in the Magento Admin Panel to apply the changes. If you click **Accept Payment** or **Deny Payment**, the changes made at the PayPal site are applied.

"Deny" Filter Action

If for a certain PayPal FMF you set the filter action to "Deny," the suspected order cannot be placed by the customer, because the corresponding transaction is rejected by PayPal.

"Flag" Filter Action

If for a certain PayPal FMF you set the filter action to "Flag", the suspected order gets the status "Processing" when it is placed.

The corresponding transaction is marked with a "flag" in the list of the merchant account transactions.

22 Authorize.Net Payments

This chapter describes the integration with the Authorize.Net payment gateway that is available in Magento Enterprise Edition.

22.1 Balance Response, Partial Authorization Transactions, and Authorization Reversals

Because MasterCard and Discover modified their rules for processing debit, prepaid, and gift cards, the Authorize.Net payment gateway now requires its merchants to add the following functionality to their eCommerce applications to comply with new requirements:

- ❖ Balance response transactions
- ❖ Partial authorization transactions
- ❖ Authorization reversals

eCommerce merchants are currently required to provide support for authorization reversals only. Though no longer required, partial authorizations and balance responses are considered best practices, and Authorize.Net still strongly recommends that eCommerce merchants provide support for all three requirements. Magento Enterprise Edition includes all three options.

These features are implemented in the Authorize.Net payment method. The following types of debit, prepaid, and gift cards are supported:

- ❖ MasterCard
- ❖ Discover
- ❖ Diners Club
- ❖ JCB
- ❖ Visa
- ❖ American Express (supporting only partial authorization and balance response transactions)

Balance response transactions, partial authorizations, and authorization reversals are provided for all merchants, even from countries other than the United States.

Magento triggers the new functionality during the order creation, when it receives the appropriate response from the Authorize.Net payment gateway. The gateway receives approval or rejection for using the new features from the bank it communicates with, while processing payments.

Balance Response

If the customer chooses the Authorize.Net payment method and uses one of the supported debit, prepaid, or a gift cards, the information about the balance and the amount put on hold or captured for this card is available for viewing. You can view these balances in the Payment Method block of the order view (**My Account** > **My Orders**), in the **Remaining Balance** and **Processed Amount** fields. The following information is displayed for a card (see Figure 185):

❖ Credit Card Type

❖ Credit Card Number (only the last four digits of the card number are stored and displayed in Magento)

❖ Processed Amount

❖ Remaining Balance (if available)

Figure 185. Customer's Card Information in the Order View

The same information is also shown in the Payment Method section of emails that are sent to the customer upon creating an order, its invoice, shipment notice, and credit memo. If the customer uses more than one credit card for paying the order (that is partial authorization takes place), the information is included for each card that is used in the payment. For detailed information about partial authorization, see "Partial Authorization," page 244.

Similarly, the balance and the amount put on hold or are shown in the Payment Information block of the order view in the Admin Panel (see Figure 186).

Figure 186. Credit Card Information in the Order View in the Admin Panel

Note: In some cases the balance information is not available (that is, the card issuer may not return the remaining balance on customer's card). This typically occurs when the customer's card is a credit card. In this case, the **Remaining Balance** *field does not appear in the back-end or in the front-end.*

Partial Authorization

The partial authorization functionality enables your store to accept multiple cards as payment for a single order. It can be useful if the customer tries to pay for a purchase with a card, but it turns out that the amount available on the card is not enough to complete the payment. Magento enables the customer to use up to five cards for one order.

The partial authorization feature is optional. You can enable or disable it at the global or at the website level.

To set the partial authorization:

1. On the Magento top menu, click **System** > **Configuration**.

2. In the **Current Configuration Scope** drop-down menu in the upper left part of the page, leave the **Default Config** or select the desired website.

3. In the left column under SALES click the **Payment Methods** tab. In the **Authorize.Net** field set, you can enable or disable the partial authorization functionality using the **Allow Partial Authorization** drop-down menu.

Partial Authorization: Customer Experience

During the one-page checkout process, the customer selects the Authorize.Net payment method, types the card information, and proceeds to the Order Review checkout step. After the customer clicks **PLACE ORDER**, the request is sent to Authorize.Net. If the payment gateway responds that the amount available on the card is not enough to cover the order total, a dialog box with the following message appears:

> The amount on your credit card is insufficient to complete your purchase.
> The available amount has been put on hold. To complete your purchase,
> click Continue and specify additional credit card number. To cancel the
> purchase and release the amount on hold, click Cancel.

After the customer chooses to continue, the Payment Information checkout step reappears and the customer is prompted to specify another credit card. The information about the previously used credit cards is displayed as well (see Figure 187).

If the customer clicks **Cancel** in the Payment Information checkout step, all authorizations are reversed. The customer may then choose another payment method to complete the purchase. If the customer simply closes the browser window, authorizations remain active until they expire. The terms of authorizations depend on the banks that issued the credit cards.

> **Note:** *The order in the Admin Panel is created only after the total amount of the order is covered.*

Figure 187. Partial Authorization Triggered During Checkout

When the customer reaches the limit of five cards allowed to be used for one order, the following message appears in the Order Review checkout step:

> You have reached the maximum number of credit cards that can be used
> for the payment.

When the customer clicks the **OK** button, the Payment Information checkout step reappears, where the following message is displayed:

> "You have reached the maximum number of credit cards that can be used
> for one payment. The available amounts on all used cards were insufficient
> to complete payment. The payment has been canceled and amounts on
> hold have been released.

The system sends a request to Authorize.Net to void all authorizations of this payment. The customer may now choose other payment method or try to use other credit cards.

During partial authorization the bank may reject the transaction for some reason, for example if the daily card limit is exceeded for the credit card. In this case Authorize.Net sends the appropriate response to Magento and the following message is displayed:

> Your credit card has been declined. Click Continue to specify another
> credit card to complete your purchase. Click Cancel to release the amount
> on hold and select another payment method.

If the customer decides to reverse the payment and clicks Cancel, the payment will be reversed and a request will be sent to Authorize.Net to release the amounts on hold from the previously entered cards. The customer may then select another payment method. If the customer chooses to continue, the Payment Information checkout step reappears, and the customer is prompted to enter another credit card.

To revert all authorizations made during the partial authorization process and release all amounts, while the order is not placed yet, the customer can use the **Cancel** button in the Payment Information checkout step.

If the customer starts partial authorization having performed payment with at least one credit card, and then changes any information on any checkout step, the partial authorization cannot proceed correctly An error message appears after the customer clicks **PLACE ORDER**, all authorizations are released automatically, and the customer is redirected to the Payment Information checkout step.

Partial Authorization in Orders Created from the Admin Panel

The partial authorization feature can be used in orders, created from the Admin Panel, either when you create a new order or use the reorder feature (the **Reorder** button on the order view page). When you choose the **Authorize.Net** payment method in the order, enter the card information, and click the **Submit Order** button, the request is sent to Authorize.Net. If the amount on the card is not enough to cover the order, the available funds are put on hold and the partial authorization is triggered. The corresponding message appears on the **Create New Order** page. If you choose to continue, the system displays the information about the previously used credit cards and prompts you to enter another credit card. If you click **Cancel**, then all authorizations are reversed.

If you simply close the browser window during the partial authorization, then authorizations will remain active until they expire. The term of authorization depends on the bank that issued the credit card.

You can cancel the order by clicking the **Cancel** button in the upper right corner of the page, if payment is not yet complete. In this case Magento sends a request to Authorize.Net to void the authorizations for all cards carried out during the partial authorization. This releases the amounts on hold on the entered cards. If the payment gateway is not able to void the authorizations on some transactions, the system only cancels the order.

If you change any order information, after the partial authorization was triggered, it cannot proceed correctly. An error message appears if you enter another card and click **Submit Order**, and all authorizations are released automatically.

Partial Authorization Refund

When processing a refund on an order that was paid for with partial authorizations, Magento refunds the captured amounts to the cards they originated from. This process is performed by the system and you do not have to do anything.

When you initiate an online invoice or online refund, and some of the authorizations fail, the system proceeds with the rest of authorizations. The online invoice or refund document is not created in this case. When all authorizations have been processed, the system displays a message with information on all processed authorizations (both successful and failed) in the order header. The same information is added to the order comments.

A recommendation to proceed with failed authorizations manually on the Authorize.Net is issued to the store administrator. The store administrator can view a notification message stating that she or he can create only offline invoice or offline refund in Magento.

In the case of a partial refund, the amounts are refunded to the cards they originated from, in the order they were authorized. That is, the amounts captured from the first card are refunded to this card first. It is possible that for the last card in the partial refund process, the amount reversed is less than was captured during the partial authorization. In this case the transaction for this card remains open and can be closed in the next partial refund.

Only the last four digits of the credit card number are stored in Magento. Authorize.Net allows merchant systems to submit the refund using the last four digits of the credit card number during 120 days after the payment. That is why, if more than 120 days passed from the date of the payment, you cannot process an online refund for an order that was paid with the Authorize.Net payment method.

Because American Express does not support authorization reversals, it is impossible to create an online refund for these cards. In this case you can create an offline refund, and settle the situation by releasing the customer's funds outside the Magento system.

22.2   The Direct Post Payment Method for Authorize.Net

Magento incorporates the Direct Post Method for payments using the Authorize.Net gateway. The Direct Post method uses the Server Integration Method and the Advanced Integration Method.

> **Note:** *In older versions of Magento the Advanced Integration Method is used.*

When payments are made using the Direct Post Method, the Authorize.Net gateway handles all steps in the transaction process (payment data collection, data submission, and response to the customer) while the customer is not redirected anywhere from the web store.

You can learn more about the Direct Post Method here: http://developer.authorize.net/api/dpm/

Enable and Configure the Authorize.Net Direct Post

To enable and configure the Authorize.Net Direct Post payment method:

1. Navigate to **System** > **Configuration** > SALES > **Payment Methods** > **Authorize.Net Direct Post**. Configuration can be done on either the global or website level, so in the **Current Configuration Scope** drop-down menu, located in the upper left part of the page, leave the **Default Config** or select the desired website. The following settings are available**:**

   ❖ **Enabled:** Enable or disable the Authorize.Net Direct Post payment method.

   ❖ **Payment Action:** In the **Payment Action** field, choose the way payments will be authorized in the Authorize.Net payment system and the entities that will be created after the successful transaction in the backend as a result of the payment procedure. The following options are available:

   o **Authorize Only:** Funds on the customer's card are only authorized at the side of the Authorize.Net system and only an order is created in the backend of your store. You can later create an invoice and conduct the capturing.

   o **Authorize and Capture:** Funds on the customer's card are authorized and captured at Authorize.Net side, and as a result an order and an invoice are created in the backend of your store.

   ❖ **Title:** In the **Title** field, specify the name of the payment method that will be displayed to the customer in the Payment Information section of the one-page checkout. This parameter can be set up for each store view.

   ❖ **API Login ID** and **Transaction Key:** Specify your Authorize.Net credentials.

   ❖ **Merchant MD5:** Specify your MD5 Hash Value.

   > *Note: The MD5 Hash feature enables Magento to verify that transaction responses are securely received from Authorize.Net. The MD5 Hash value is used by the payment gateway to encrypt responses for transactions, submitted for your account. You can set your MD5 Hash Value in your Authorize.Net account settings at the* [*Authorize.Net website*](Authorize.Net website) *(select **Account > Settings > Security Settings > MD5-Hash**.)*

   ❖ **New Order Status:** Select the order status of all new orders that are created using this payment method.

   ❖ **Test Mode:** Select **Yes** if you want to test the payment method. In this case a notification is sent to Authorize.Net that orders should be sent to their test site. When you finish testing the integration project, the test mode must be turned off by selecting **No** in the **Test Mode** field.

   ❖ **Gateway URL:** This is the URL to which the order information will be sent. By default, it is populated with https://secure.authorize.net/gateway/transact.dll.

> **Note:** *If you have a special test URL from Authorize.Net, you can select* **No** *in the* **Test Mode** *list and specify the testing link in the* **Gateway URL** *field. However, the URL of the live site must be reentered before you take your site live.*

❖ **Accepted Currency:** Specify the currency of the transactions. It should be one of the currencies that are allowed by the payment gateway and it does not have to correspond to the currency in which the prices are displayed on the store pages.

❖ **Debug:** Specify whether communications with the payment system are written into the log file.

> **Note:** *Only the four last digits of the customer's card are written to the log file, in order to prevent card fraud.*

❖ **Email Customer:** Specify whether you want Authorize.Net to send emails to your customers on the completion of the checkout. This does not influence the order confirmation email and other transactional emails sent from Magento, only the emails sent from your Authorize.Net account.

❖ **Merchant's Email:** Specify the email address associated with your account, if you want Authorize.Net to send you email notifications of orders placed using this payment method. If it is left blank, no emails will be sent to you by Authorize.Net.

❖ **Credit Card Types:** Select the options that will appear in the Credit Card Type drop-down menu in the frontend.

❖ **Credit Card Verification:** Select whether customers will be required to specify the Credit Card Verification number during checkout.

❖ **Payment from Applicable Countries:** Choose the countries whose residents can use this method of payment. Choose between the following options:

  o **All Allowed Countries:** Customers from the default countries list can use this payment method.

  o **Specific Countries:** Only customers whose billing address includes one of the countries selected in the **Payment from Specific Countries** field below, can use this payment method. The field works as a filter, so that this payment method will only be visible for those customers whose billing addresses are in one of these selected countries.

❖ **Minimum/Maximum Order Total:** These fields also work as filters. This payment method will only be visible for those customers whose order total is above the minimum (if a minimum value is specified) and below the maximum (if a maximum value is specified).

❖ **Sort order:** When deciding to multiple payment methods, in the **Sort Order** field determine the order this method will be displayed in the Payment Information section of the one-page checkout in the frontend.

2. Click **Save Config** in the upper-right corner of the page.

Authorize.Net Direct Post in Orders Created from the Admin Panel

The Authorize.Net Direct Post payment method can be used in the orders created from the Admin Panel as well (**Sales** > **Orders** > **Create New Order**). If the method is enabled, you can select it in the Payment Method section. After you click the corresponding option button, the fields for the card information appear. If the transaction fails, an error message appears and you can then select another payment method or try Authorize.Net Direct Post with another card.

Order Handling

Handling the orders, paid using the Authorize.Net Direct Post payment method, is quite similar to the general Magento order workflow. An invoice, shipment, and credit memo can be created.

Authorize.Net Direct Post: Customer Experience

If you enable this method, the customer can select it in the Payment Information section of the one-page checkout. After the customer clicks the corresponding option button and clicks **Continue**, the Order Review section of the checkout appears, where the fields to enter the card information are presented. The customer then needs to enter the card information and click the **PLACE ORDER** button. See Figure 188.

If the transaction is successful, the customer is redirected to the order confirmation page. If the transaction fails on some reason, an error message is displayed in a dialog box and the customer may then select another payment method or try Authorize.Net Direct Post with another card.

Figure 188. Checkout Using Authorize.Net Direct Post

22.3 3D Secure Authentication for Authorize.Net Payments

Magento Enterprise Edition includes the option to use 3D Secure authentication for payments carried out via the Authorize.Net payment. Cardinal Centinel® is used as the service provider.

3D Secure Authentication General Concept

During the checkout, the customer is prompted to specify the secret code assigned to the card, which enables the card issuing bank to confirm the cardholder's identity. The bank also provides additional data elements to confirm the cardholder's identity. The service provider arranges communication with banks and payment systems.

Note: *To find more information about the 3D Secure protocol you can also search by "Verified by Visa", "MasterCard SecureCode", and "J/Secure".*

To be able to use the 3D Secure authentication for Authorize.Net payments in Magento, you need to take two steps:

1. Configure general 3D Secure settings.

2. Enable 3D Secure in the Authorize.Net payment method section.

3D Secure authentication can be used in both frontend and backend orders.

Configuring 3D Secure

To configure general 3D Secure settings in the Admin Panel you do the following:

1. Navigate to **System** > **Configuration** > SALES > **Payment Services**. Configuring can be done on either the global or website level, so leave **Default Config**, or select the desired website in the **Current Configuration Scope** drop-down menu in the upper-left corner of the page.

2. Under **3D Secure Credit Card Validation** the following settings are available:

   ❖ **Processor Id:** Specify the merchant processor identification code. This value is assigned to you by Centinel.

   ❖ **Merchant Id:** Specify the merchant identification code. This value is also assigned to you by Centinel.

   ❖ **Password:** Specify the password to connect to the Centinel system.

   ❖ **Test Mode:** Choose whether the connection with the Centinel system is tested prior to start the real life 3D Secure validation of payment transactions.

3. Click **Save Config** in the upper-right corner of the page.

Configuring 3D Secure Use for Authorize.Net

3D Secure authentication is implemented for the Authorize.Net payment method. To enable and configure 3D Secure for Authorize.Net, do the following:

1. Navigate to **System** > **Configuration** > SALES > **Payment Methods**. Configuring can be done on either the global or website level, so leave **Default Config**, or select the desired website in the **Current Configuration Scope** drop-down menu in the upper-left corner of the page.

2. Under **3D Secure** in the **Authorize.Net** field set, select **Yes** in the **3D Secure Card Validation** field. Additional settings appear:

   ❖ In the **Severe 3D Secure Card Validation** field, choose whether severe validation will be applied to credit cards by the Centinel system.

   ❖ In the **Centinel Custom API URL** field, specify the URL, which will establish the connection with the Centinel system for credit card validation. The URL is provided by Centinel.

3. Click **Save Config** in the upper-right corner of the page.

3D Secure for Authorize.Net: Customer Experience

During the one-page checkout process, the customer selects the Authorize.Net payment method, specifies the card information, and clicks **Continue**. The Order Review checkout step opens and includes a form that is hosted by the bank that issued the card. The customer needs to enter the secret code, log in to the account, or confirm his or her identity in some other way, depending on the bank's requirements. See Figure 189.

Figure 189. 3D Secure Authentication Form for the Customer

After submitting the form, the customer is redirected to the Order Review checkout step. The customer clicks **PLACE ORDER**, and proceeds to the order confirmation page if the authentication is successful. If the authentication fails on some reason, an error message is displayed in a dialog box and the customer may then select another payment method or try Authorize.Net again.

3D Secure for Authorize.Net in Orders Created from the Admin Panel

When during the admin order creation you select the **Credit Card (Authorize.Net)** payment method, the fields for entering the card information and the **Start/Reset Validation** button appear (see Figure 190).

Figure 190. 3D Secure Authentication in the Admin Orders

When you enter the card information and click the **Start/Reset Validation** button, a form appears that is hosted by the bank that issued the card. You need to enter the secret code, log in to the account, or confirm the identity in some other way. If the validation is successful, the corresponding message is displayed under 3D Secure Card Validation and you can proceed with creating the order.

23 Internal Payment Methods

This chapter describes some of the internal payment methods that are available in Magento.

To define internal payment methods:

In the Admin Panel, select **System > Configuration > Payment Methods** to display the Payment Methods page, as shown in Figure 191.
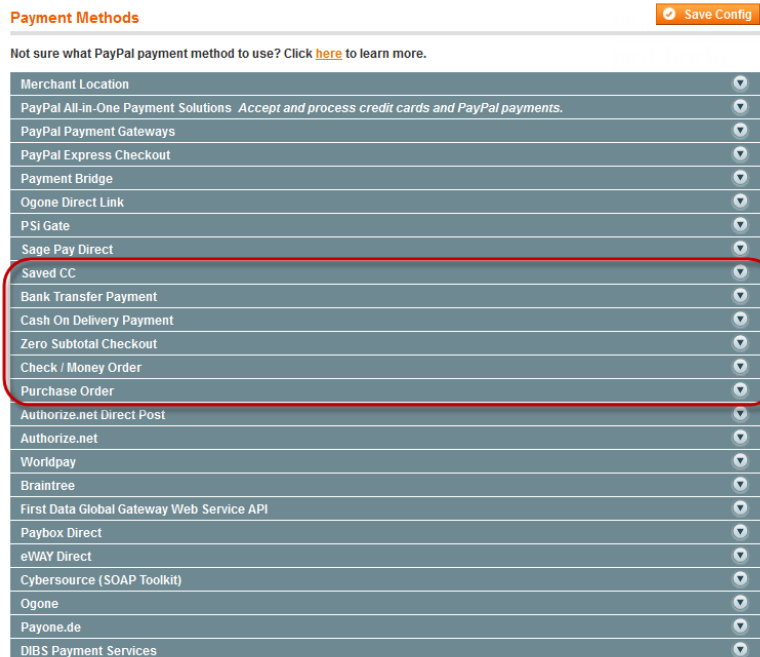
Figure 191. Internal Payment Methods (Circled)

A few internal payment options are described in this chapter. Configuration of the other internal payment methods is similar.

23.1   Saved Credit Cards

This option enables you to take credit cards and to process them offline. This method is useful when you have a card terminal in a brick and mortar store or have access to a virtual terminal. This payment method is enabled by default in the Sample Data.

> **Tip:** *When using the Credit Cards payment method it is highly recommended to configure an SSL certificate for your web store.*
>
> **Important Note:** *Saving customer card data is discouraged unless absolutely necessary. Even though the data is encrypted it still poses a security risk to hold this information.* **The Saved Credit Cards payment method is not PCI compliant.**

To set up the Saved Credit Cards payment method:

1. Select **System > Configuration > Payment Methods** to display the Payment Methods page.

2. In the **Current Configuration Scope** drop-down menu, select the scope for these configuration selections.

3. Expand the **Saved CC** section to define credit cards, as shown in Figure 192.

Figure 192. Saved Credit Card Configuration Options

4. Make your configuration selections. Most of these options are self-explanatory. The options that may need some explanation are as follows:

❖ **Request Card Security Code:** Determines whether the payment method interface on the frontend requires the customer to supply the security code on the back of the card. If your credit card terminal requires the security code, set this option to **Yes**.

❖ **3D Secure Card Validation:** Determines whether credit card validation is carried out using the 3D Secure system. You must be a 3D Secure system subscriber, and you must first set up the general 3D Secure configuration options in
System > Configuration > Payment Services.

5. Click **Save Config** to save your changes.

This option appears in the web store as shown in Figure 193.

Figure 193. Saved Credit Card Payment Method (Frontend)

Customers who place an order in your web store and use the Saved Credit Card payment method see their card details as shown in Figure 194.

Figure 194. Credit Card Information (Frontend)

23.2   Checks and Money Orders

This payment method enables you to accept paper checks and money orders as payment. The order remains in Pending status until the payment is received (or clears your bank, if you prefer).

This payment method is enabled by default in the Sample Data. Expand the **Check/Money Order** section to define how checks and money orders are accepted in your web store, as shown in Figure 195.

Figure 195. Check/Money Order Configuration Options

In the **Make Check payable to** field, specify the name of the entity to which the checks must be made out.

This option appears in the web store as shown in Figure 196.
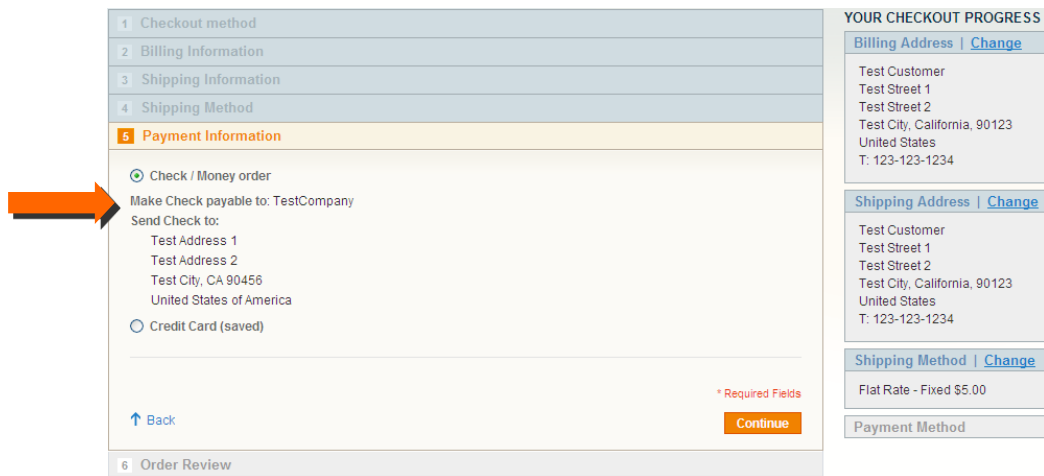
Figure 196. Check/Money Order Payment Method (Frontend)

23.3   Purchase Orders

Customers who are representatives of other companies can use the Magento Purchase Order payment method to buy products and assign a corresponding purchase order number generated in their accounting system to the sales order generated in Magento.

For example, your web store customer represents the company that sells computers. They need to buy some monitors from your shop. In their accounting system, the customer creates a purchase order which is assigned a unique purchase order number. When the customer places an order in Magento, she or he can select the Purchase Order payment method and specify the purchase order number from their accounting system. All order-related documents, including the order confirmation email, invoice, shipment, and credit memo, will have the purchase order number on them. The company accounting department can now reference the purchase order number entered on the Magento sales order so that they know what the order was created for, whether it was authorized, and so on.

When the customer receives your invoice, they process the payment in their Accounts Payable system. You will typically want to check the customer's creditworthiness before allowing them to use the Purchase Order payment method in your store. See Figure 197.

Figure 197. Configuring the Purchase Order Payment Method

To enable and use the Purchase Order payment method:

1. In the admin panel, navigate to **System > Configuration >** SALES **> Payment Methods** and then expand the **Purchase Order** field set.

2. Set the **Enabled** field to **Yes** to make this field available to your customers.

3. In the **Title** field, specify the name of the payment method as it will appear in the Payment Information section in both the frontend and in the backend.

4. The **Payment from Applicable Countries** parameter enables you to select which customers can use this payment method. **All Allowed Countries** means that all customers from the default countries list can use this payment method. If you have not already configured the default list, it can be done by navigating to **System > Configuration >** GENERAL **> General > Countries Options** and selecting each country you want to add from the **Allow Countries** list. If you want to further reduce the number of countries from which your customers will be allowed to use this payment method, select **Specific Countries**. This means that only customers whose billing address includes one of the countries listed in the **Payment from Specific Countries** list below can use this payment method.

5. In the **Minimum Order Total** field, you can specify that the payment method will be available only if the shopping cart total amount is greater than the minimum order total amount specified in this field.

6. In the **Maximum Order Total** field, you can specify that the payment method will be available as long as the shopping cart total amount is less than the maximum order total amount specified in this field.

7. If more than one payment method is enabled, use the **Sort Order** field to specify the order in which the Purchase Order payment method appears in the Payment Information section in both the frontend and in the backend.

When the customer selects this payment method, the **Purchase Order Number** field becomes available where he or she must specify the number of the corresponding order from their accounting system and then place the order in Magento. The same thing happens when the store administrator creates an order in the Magento backend; after selecting the **Purchase Order** payment method in the Payment Method section, the **Purchase Order Number** field must be filled out.

23.4   Zero Subtotal Checkout

If a customer places an order and the subtotal is equal to zero, you can offer them this payment method, whereby they will not be required to enter any payment information. Unlike the other payment methods for which you can set order amount filters, this method contains an intrinsic order amount filter, so that the method will appear only if the subtotal is equal to zero. This payment method is only available when an order is created in the backend. See Figure 198.

The Zero Subtotal Checkout payment method can be used in cases such as these:

❖ The product that the customer adds to the shopping cart is of the Downloadable or the Virtual product type and its price equals zero.

❖ The price of a simple product is zero and the Free Shipping method is available.

❖ A coupon code which covers the full price of products and shipping is applied in the shopping cart.

Note: The payment method will be available if taxes are configured so that they are applied to the products in the shopping cart after the discount is applied.

❖ A gift card is applied to the shopping cart and it fully covers the order amount including shipping.

> **Note:** *During the checkout of an order covered by a gift card, the customer will still have to select the No Information Required payment method in the Payment Information section of the Checkout page.*

Figure 198. Configuring the Zero Subtotal Checkout Payment Method

To configure the Zero Subtotal Checkout payment method:

1. In the admin panel, navigate to **System > Configuration >** SALES **> Payment Methods** and then expand the **Zero Subtotal Checkout** field set.

2. In the **Title** field, specify the name of the payment method as it will appear in the Payment Information section in both the frontend and in the backend.

3. Set the **Enabled** field to **Yes** to make the payment method available to customers.

4. In the **New Order Status** field, select the order status of all new orders created using this payment method. The recommended status is Pending, as this is intended to apply to orders which have not had any actions performed on them; however, you can change this to the **Processing** status.

5. In the **Automatically Invoice All Items** field, choose whether all products in an order with a zero subtotal amount will be automatically invoiced by the system. However, the status of the order specified in the **New Order Status** field will not be taken into account as an order with the products of the Downloadable and Virtual product types with zero price do not require shipment, and as soon as the products in the order are invoiced, its status changes to Complete.

6. The **Payment from Applicable Countries** parameter enables you to select which customers can use this payment method. **All Allowed Countries** means that all customers from the default countries list can use this payment method. If you have not already configured the default list, it can be done by navigating to **System > Configuration >** GENERAL **> General > Countries Options** and selecting each country you want to add from the **Allow Countries** list. If you want to further reduce the number of countries from which your customers will be allowed to use this payment method, select **Specific Countries**. This means that only customers whose billing address includes one of the countries listed in the **Payment from Specific Countries** list below can use this payment method.

7. If more than one payment method is enabled, use the **Sort Order** field to specify the order in which the Purchase Order payment method appears in the Payment Information section in both the frontend and in the backend.

The totals area of a shopping cart that contains only products of the Virtual or the Downloadable product types with the zero price displays zero subtotals. Because the products of these types cannot be shipped, no shipping information will be specified and the Payment Information section of the Checkout page will contain the message that no payment information is required.

23.5   Bank Transfer

This payment method can be enabled if you provide customers with the ability to pay for an order amount with a wire transfer directly to your bank account. See Figure 199.

Figure 199. Configuring the Bank Transfer Payment Method

To set up the Bank Transfer Payment method:

1. Navigate to **System > Configuration** > SALES > **Payment Methods**.

2. Locate and expand the Bank Transfer Payment field set.

3. Set the **Enabled** parameter to **Yes** to enable this method.

4. In the **Title** field, enter the name of the payment method to be displayed in the Payment Information section both in the frontend and in the backend.

5. Set the **New Order Status** parameter to **Pending**.

6. The **Payment from Applicable Countries** parameter enables you to select which customers can use this payment method. **All Allowed Countries** means that all customers from the default countries list can use this payment method. If you have not already configured the default list, it can be done by navigating to **System > Configuration >** GENERAL **> General > Countries Options** and selecting each country you want to add from the **Allow Countries** list. If you want to further reduce the number of countries from which your customers will be allowed to use this payment method, select **Specific Countries**. This means that only customers whose billing address includes one of the countries listed in the **Payment from Specific Countries** list below can use this payment method.

7. In the **Instructions** field, specify the bank account information you need to enable your customers to transfer money through this payment method.

8. In the **Minimum Order Total** field, you can specify that the payment method is available only if the shopping cart total amount is greater than the minimum order total amount specified in this field.

9. In the **Maximum Order Total** field, you can specify that the payment method is available as long as the shopping cart total amount is less than the maximum order total amount specified in this field.

10. If more than one payment method is enabled, in the **Sort Order** field specify the order of the Bank Transfer payment method to appear in the Payment Information section both in the frontend and in the backend.

11. Click **Save Config**.

23.6   Cash on Delivery

Cash on Delivery (COD) is a payment method which can be set up to enable the customers to pay their order amount with cash when the merchandise is delivered. The customer pays the order amount to the shipping carrier, which sends a check to you. See Figure 200.

Shipping carriers typically charge an extra fee for the COD service. You should account for this fee in your shipping and handling charges.

Figure 200. Configuring the Cash on Delivery Payment Method

To set up the Cash on Delivery payment method:

1. Navigate to **System > Configuration** > SALES **> Payment Methods**.

2. Locate and expand the Cash On Delivery Payment field set.

3. Enable the payment method by selecting **Yes** in the **Enabled** field.

4. In the **Title** field, enter the name of the payment method to be displayed in the Payment Information section both in the frontend and in the backend.

5. Set the **New Order Status** parameter to **Pending**.

6. The **Payment from Applicable Countries** parameter enables you to select which customers can use this payment method. **All Allowed Countries** means that all customers from the default countries list can use this payment method. If you have not already configured the default list, it can be done by navigating to **System > Configuration >** GENERAL **> General > Countries Options** and selecting each country you want to add from the **Allow Countries** list. If you want to further reduce the number of countries from which your customers will be allowed to use this payment method, select **Specific Countries**. This means that only customers whose billing address includes one of the countries listed in the **Payment from Specific Countries** list below can use this payment method.

7. In the **Instructions** field, enter any specific instructions for customers to follow with regards to the cash on delivery payment.

8. In the **Minimum Order Total** field, you can specify that the payment method is available only if the shopping cart total amount is greater than the minimum order total amount specified in this field.

9. In the **Maximum Order Total** field, you can specify that the payment method is available as long as the shopping cart total amount is less than the maximum order total amount specified in this field.

10. If more than one payment method is enabled, in the **Sort Order** field specify the order of the Cash on Delivery payment method to appear in the Payment Information section both in the frontend and in the backend.

11. Click **Save Config**.
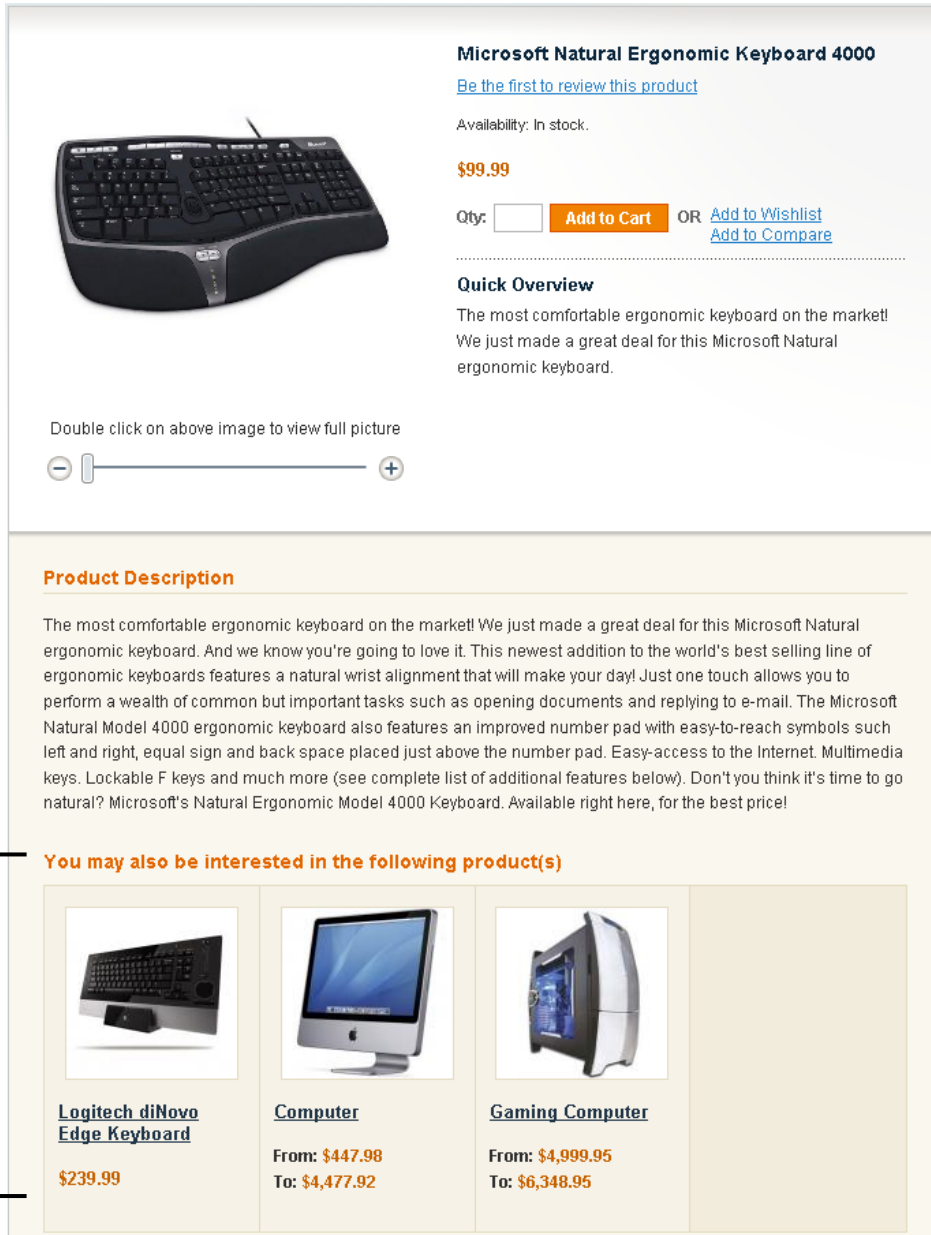
24 Up-selling, Related Products, and Cross-selling

Three types of product promotion selling options are provided in Magento: Up-sell products, Related products, and Cross-sell products.

❖ **Up-sell Products:** When a customer views a product, the Up-sells for this product are items that your customer could buy *instead* of the product that is being viewed. These products may be of a better quality, more expensive, or more popular, or produce a higher margin. These products appear on the Product Information page.

❖ **Related Products**: Related products appear in the Product Information page in the right column. Related products are meant to be purchased in addition to the item the customer is viewing.

❖ **Cross-sell Products:** Products that are promoted in the shopping cart page right before checkout. When a customer navigates to the shopping cart (whether automatically after adding a product or otherwise), these products are offered as suggestions in addition to the products already in the shopping cart. They are similar to impulse buys, like magazines and candy at the cash registers in grocery stores.

24.1   Up-sells

The up-sell products appear in the Product Information page under the **Product Description**, as shown in Figure 201. This example presents a more expensive keyboard and other products as up-sells to the less expensive keyboard.

Figure 201. Up-sell Products

To add Up-sells to a product:

1. In the Admin Panel select **Catalog > Manage Products** to display a list of products, as shown in Figure 202.

Figure 202. Manage Products Page

2. Click the **Edit** link which appears on the right side of the row of the product for which you want to define Up-sells. The page shown in Figure 203 is displayed:

Figure 203.   Edit Product Page

3. Select the **Up-sells** tab in the panel on the left. See Figure 204.

Figure 204. Products Selected as Up-sell Products

Tip: *By default the list shows only products that were already selected as up-sells. If there are none or you want to add other products, click the* **Reset Filter** *button to display a list of all the products.*

4. Use the check box in each row or the products that you want to appear as up-sells to this product.

5. Click the **Save** button.

24.2 Related Products

Related Products are shown in the right column of your web store in a separate block. The example in Figure 205 shows a mouse product that was added as a Related Product for a keyboard purchase.

Figure 205. Related Item

To add Related Products to a product:

1. In the Admin Panel, select **Catalog > Manage Products** to display a list of products.

2. Click the **Edit** link that appears on the right side of the row of the product for which you want to define Related Products.

3. Select the **Related Products** tab in the panel on the left to display the Product Listing page.

> *Tip:* *By default the list shows only products that were already selected as Related Products. If there are none or you want to add other products, click the **Reset Filter** button to display a list of all the products.*

4. Use the check box in each row of the products that you want to appear as Related Products to this product.

5. Click the **Save** button.

24.3   Cross-sells

Cross-sell products are shown in a block below the shopping cart products, as shown in Figure 206.
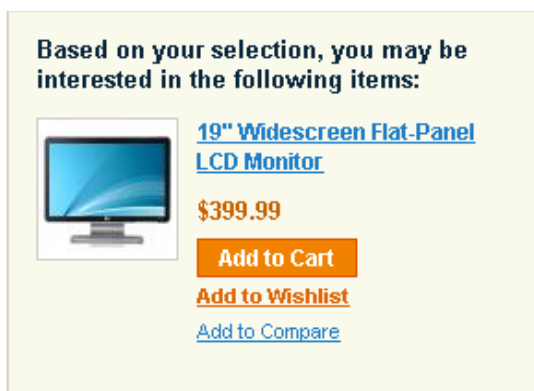
Figure 206. Cross-sell Item

Cross-sell products are displayed after a product has already been added to the shopping cart. By default, three products are randomly selected by Magento from the products that have been defined as Cross-sell products of all the products in the shopping cart.

To add Cross-sell products to a product:

1. In the Admin Panel, select **Catalog > Manage Products** to display a list of products.

2. Click the **Edit** link that appears on the right side of the row of the product for which you want to define Related Products.

3. Select the **Cross Sells** tab in the panel on the left to display the Product Listing page.

> *Tip:* *By default the list shows only products already selected as cross-sells. If there are none, or you want to add other products, click the **Reset Filter** button to display a list of all the products.*

4. Use the check box in each row of the products that you want to appear as Cross-sells for this product.

5. Click the **Save** button.

25 Catalog and Shopping Cart Price Rules

There are two types of price rules in Magento: **Catalog Price Rules** and **Shopping Cart Price Rules**. Catalog Price Rules are applied to products before they are added to the shopping cart. Shopping Cart Price Rules are applied to products in the shopping cart.

25.1   Catalog Price Rules

Catalog Price Rules are applied to products before they are added to a shopping cart. They can be used to create sales and discounts that do not require that a discount code be supplied by the customer. The process of defining a **Catalog Price Rule** consists of three stages:

- **Defining the Catalog Price Rule Information,** page 274, defines general information about the rule.

- **Defining the Catalog Price Rule Conditions,** page 276, defines the conditions that trigger the rule.

- **Defining the Catalog Price Rule Actions,** page 278, defines the actions that are executed when the conditions of this rule are met.

Defining the Catalog Price Rule Information

To create a Catalog Price Rule:

1. From the Admin Panel, select **Promotions > Catalog Price Rules > Add New Rule** button to display the page shown in Figure 207.

Figure 207. Adding a New Catalog Price Rule

2. In the **Rule Name** and the **Description** fields, specify a unique name and a description for this Catalog Price Rule.

3. In the **Status** field, select **Active**.

4. In the **Websites** field, select the website to which this rule applies.

5. In the **Customer Groups** field, select one or more customer groups to which this rule applies.

6. In the **From Date** and **To Date** fields, set a date range for the rule to take effect. If you leave the date range empty, then the rule is enabled as soon as it is created.

Defining the Catalog Price Rule Conditions

After you have set up the general information for the price rule, you must create the conditions that specify when the rule is triggered.

The following example shows how to discount every T-shirt that is over $20 by 10% by defining a rule that has two conditions.

To define Catalog Price Rule Conditions:

1. Select the **Conditions** option in the panel on the left to display the page shown in Figure 208.
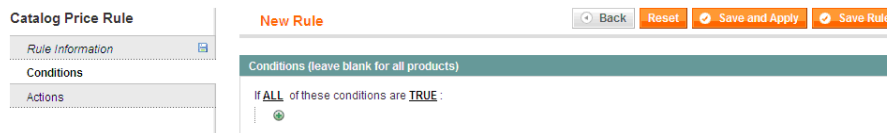
Figure 208. Specifying Rule Conditions

2. The first rule appears by default: **If ALL these Conditions are TRUE**. It specifies whether the rules that you define must **all** be met or if **any** of them can be met (AND or OR) in order to trigger the rule's action. In our example, we wanted the discount to take effect when the product is a T-shirt **and** when the T-shirt costs over $20. Therefore, leave the word **ALL** in the page above.

3. Click on the ⊕ icon to display a selection field and select the **SKU** option under **Product Attributes** from the drop-down menu. The page changes as shown in Figure 209.
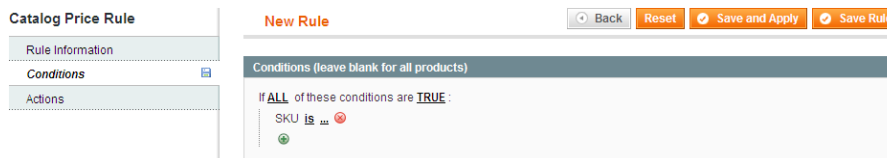
Figure 209. Adding a SKU Condition

4. Click on the **is** link to display the comparison operator drop-down menu shown in Figure 210.

Figure 210. Comparison Operator Drop-down Menu

5. Select the **is one of** comparison operator.

6. Click on the three dots to the right of the words **is one of** to display the value field, as shown in Figure 211.
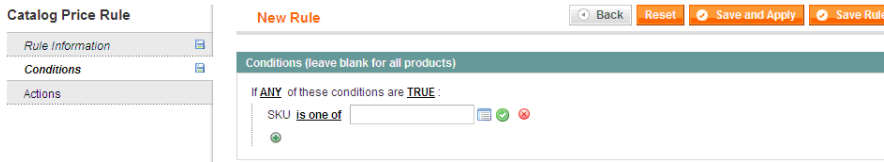
Figure 211. Value Field

7. Click on the **Chooser** icon [icon] to display a list of products from which you can select, as shown in Figure 212.
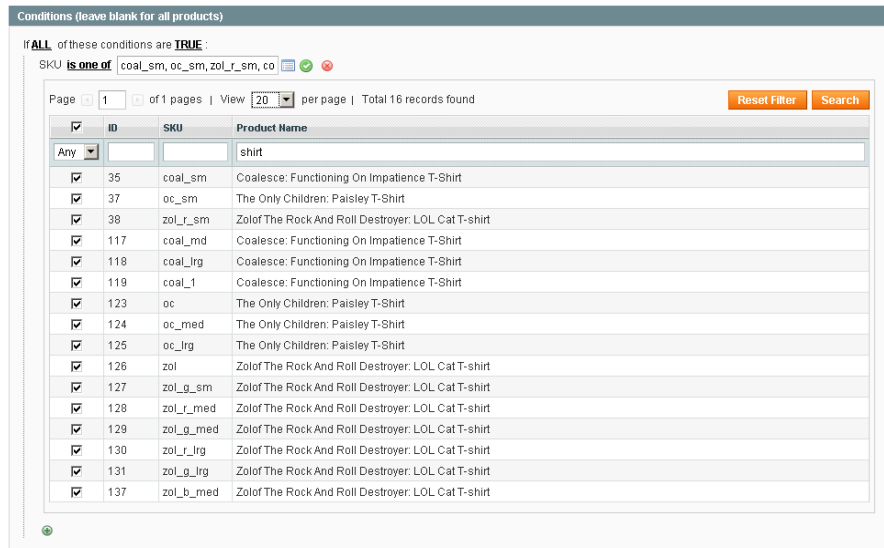
Figure 212. Item Selection

The page above shows the list of products filtered to show only those that have the word **Shirt** in their name.

8. Select the check boxes of the products (T-shirts in this example) to which this rule is to apply.

9. Save this selection of products by clicking the **Apply** icon [icon].

10. Now this rule specifies that it applies to T-shirts. You must now add the Condition that the product must cost over $20 in order for the rule to apply. To do so, click on the [icon] icon to display a selection field and select the **Price** option under **Product Attributes** from the drop-down menu.

11. Click on the **is** link and select **equals or greater than** from the comparison operator drop-down menu.

12. Enter the value 20.00 in the value field on the right to create the second Condition, as shown in Figure 213.

Figure 213. Two Conditions Specified

Defining the Catalog Price Rule Actions

Now that the conditions have been defined that trigger this rule, we must define the actions to be taken when the conditions are met. The following defines that the price is discounted by 10%.

To define Catalog Price Rule Actions:

1. Select the **Actions** option in the panel on the left to display the page shown in Figure 214.

Figure 214. Specifying Actions

2. The **Apply** drop-down menu enables you to define whether the discount that is specified in the **Discount amount** field is a percentage or a fixed amount of the price of this product. It also enables you to define whether the discount amount is subtracted from the original price (**By**) or whether the **Discount amount** field actually defines the final price (**To**). For our example, in the **Apply** field, select **By Percentage of the original price**.

3. In the **Discount** Amount field, specify the value **10.00**. This specification defines a final price that is a 10% reduction of the original price.

   *Note: Mistakenly selecting the **To Percentage of the original price** option would give a final price that is equal to 10% of the original price, meaning a 90% reduction.*

4. Select the **Save Rule** button to create the rule.

5. You must also select either the **Save and Apply** or the **Apply Rules** button to immediately apply this discount to the selected products.

25.2 Shopping Cart Price Rules

Shopping Cart Price Rules, as the name implies, are applied when a customer reaches the shopping cart. They can be applied either with or without the customer entering a coupon code, and include features not found in traditional coupon tools. This example defines a simple 10% discount coupon to be used for clogs when the shopping cart subtotal is over $100.

The process of defining a **Cart Price Rule** consists of three stages:

❖ **Defining the Cart Price Rule Information,** page 279, defines general information about this rule.

❖ **Defining the Cart Price Rule Conditions**, page 281, defines the conditions that trigger the rule.

❖ **Defining the Cart Price Rule Actions**, page 281, defines the actions that are executed when the conditions of this rule are met.

Defining the Cart Price Rule Information

To create a Cart Price Rule:

1. In the Admin Panel, select **Promotions > Cart Price Rules > Add New Rule** button to display the page shown in Figure 215.

Figure 215. Adding a New Shopping Cart Price Rule

2. In the **Rule Name** field and the **Description** field, specify a unique name and a description for this Shopping Cart Price Rule.

3. In the **Status** field, select **Active**.

4. In the **Website** field, select the website to which this coupon applies.

5. To specify that this rule only applies when a coupon code is used, select **Specific** Coupon in the Coupon drop-down menu, and specify the code of the coupon that the customer must specify in the web store.

6. To specify that each customer can use this coupon only once**,** specify **1** in the **Uses Per Customer** field.

>   *Tip:* *If you want to create a limited offer, the coupon can be limited to be used a certain number of times by selecting* **Specific** *Coupon in the Coupon drop-down menu and specifying that number the* **Uses per coupon** *field.*

7. In the **From Date** and **To Date** fields, set a date range for the rule to take effect. If you leave the date range empty, then the rule is enabled as soon as it is created.

> ***Advanced Tip:*** *You can use the **Priority** field (**1** is the highest priority) when there are multiple rules. It determines which rule takes effect first when more than one Cart Price Rule applies.*

8. By default, an announcement of this shopping cart price rule is included in your store's RSS feed. To suppress this announcement, select **No** in the **Public in RSS Feed** drop-down menu.

Defining the Cart Price Rule Conditions

After you have set up the general information for the price rule, you create the Conditions that specify when the rule is triggered. The following example shows how to create a rule that has one condition, which checks when the shopping cart subtotal is over $100.

To define Catalog Price Rule Conditions:

Select the **Conditions** option in the panel on the left and define a rule with the single condition "Subtotal equals or greater than 100," as shown in Figure 216.

Figure 216. Shopping Cart Price Rule Condition

Defining the Cart Price Rule Actions

Now that the condition has been defined that triggers this rule, you must define the actions to be taken. The following defines that 10% is reduced from the product's original price.

To define Cart Price Rule Actions:

1. Select the **Actions** option in the panel on the left to display the page shown in Figure 217.

Figure 217. Specifying Shopping Cart Price Rule Actions

2. The **Action** tab has two important sections. The first one controls the discount. In the **Apply** field, select **Percent of product price discount**.

3. In the **Discount amount** field, specify **10** to indicate that 10% is reduced from the product's original price.

> *Tip: Other options, not related to this example, are available, such as: Fixed amount discount, Fixed amount discount for whole shopping cart, and Buy X get Y free.*

4. In the **Maximum Qty Discount is Applied to** field, specify the maximum quantity of products to which this discount can be applied. If you enter **5** in this field, then the first five products of this type purchased in the same shopping cart get the 10% discount and the sixth product of the same type does not get the discount.

5. In the **Discount Qty Step (Buy X)** field, specify how often the discount is applied. This field is not relevant to our example, so leave this field empty. If you enter 8 here, then a 10% discount is applied to all the products after the eighth product is added to the shopping cart. If more than eight items are added to the shopping cart, the ninth through 15th products do not get the discount until the 16th product is added to the shopping cart, at which point the discount is 10% for all 16 products. This discount continues for every factor of eight.

6. In the **Free Shipping** field, specify whether to combine the coupon amount with a free shipping offer, for only the products for which the coupon is valid or for the entire Order, when one of these products is in the shopping cart. This field is not relevant to our example, so leave the **No** value in this field.

7. After defining the coupon as described above, select the products for which the coupon is valid. In our example, the coupon discount applies to clogs. Define a condition that applies to the SKU of clogs, as shown in Figure 218.
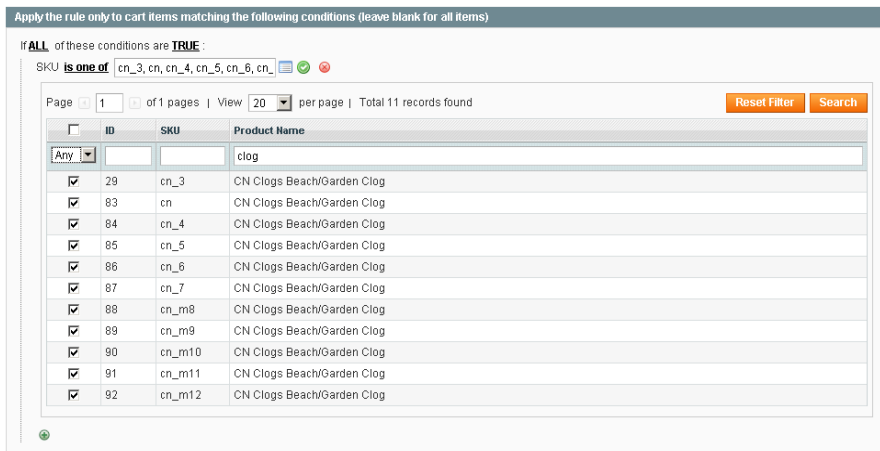
Figure 218. Specifying Products to Apply the Discount To

8. Click the **Save Rule** button.

25.3   Example: Defining a Buy 2 Get 1 Free Promotion

This section describes how to create another discount coupon with a **Buy 2 get 1 free** promotion. In this example, the web store is trying to push a digital camera as a family deal. This is a Shopping Cart Price rule.

To define a Buy 2 get 1 free promotion:

1. Define the **Coupon Information**, as described in "Shopping Cart Price Rules," page 279, but leave the **Coupon** drop-down menu selected to **No Coupon**. This selection specifies that the discount takes effect as soon as a customer adds the products to the shopping cart. See Figure 219.

Figure 219. Buy X get Y Free Promotion

2. Do not define any conditions, because this rule is always applied to the Digital Camera. The deal is created for the Argus QC-2185 Quick Click 5MP Digital Camera available in the Magento Sample Data.

3. Click the **Actions** tab in the left navigation bar. In the **Apply** field, select the **Buy X get Y free** option.

4. In the **Discount Amount** field, specify **1**. This is the number of units that are offered free.

5. In the **Discount Qty Step** field, specify **2**. This is the number of units that must be purchased in order to receive the free unit.

6. In the bottom section, set up the condition to specify the SKU of the item that is featured in this promotion

7. Click the **Save Rule** button.

   You can now send out your marketing message telling customers that if they buy 3 Argus QC-2185 Quick Click 5MP Digital Cameras one of them will be free.

   Tip: *It is good practice to test the effect of these rules yourself before trying them out on the public. Either use a discount code that only you know or assign your test customer to a testing customer group and limit the cart rules to only that customer group.*

25.4   Auto-Generating Coupon Codes

For shopping cart price rules, you can auto-generate batches of coupon codes and track their usage.

Auto-Generating Coupon Codes Quick Reference

Batches of discount coupon codes can be generated and managed on the **Manage Coupon Codes** tab of the Shopping Cart Price Rule page (**Promotions** > **Shopping Cart Price Rules** > %your rule%). To make the tab appear, in the **Coupon** field select **Specific Coupon**, select the **Use Auto Generation** check box, and click **Save and Continue Edit**. See Figure 220.

Figure 220. Enabling the Auto-generation of Coupon Codes

The default settings for the format of auto-generated coupon codes are configured under **System > Configuration > Promotions > Auto Generated Specific Coupon Codes.**

For detailed description of the auto-generation of coupon codes, see "Auto-Generating, Exporting, and Managing Coupon Codes," page 285.

Configuring Coupon Codes Auto-Generation Settings

You can set the default requirements for the coupon code format under **System > Configuration > Promotions > Auto Generated Specific Coupon Codes.** The following settings are available for configuring:

❖ **Code Length:** Defines a coupon code length excluding prefix, suffix and separators.

❖ **Code Format:** Defines a coupon code format. The options are: **Alphanumeric** (a combination of letters and numbers), **Alphabetical** (letters only), **Numeric** (numbers only).

❖ **Code Prefix:** Defines a value that will be appended to the beginning of all the coupon codes. If you do not want to use a prefix, leave this field blank.

❖ **Code Suffix:** Defines a value that will be appended to the end of all codes. If you do not want to use a suffix, leave this field blank.

❖ **Dash Every X Characters:** Defines the interval at which a dash (-) will be inserted in all coupon codes. If you do not want to use a dash, leave this field blank.

Note: Coupons whose codes differ only by dash character(s) are considered to be different coupons.

These settings can be overridden each time you need to generate a batch of coupons on the Shopping Cart Price Rule page.

Auto-Generating, Exporting, and Managing Coupon Codes

To generate and export a batch of coupon codes:

1. Log in to the Magento Admin Panel.

2. Navigate to **Promotions** > **Shopping Cart Price Rules**.

3. Select an existing rule or create a new one.

4. In the **Coupon** field select **Specific Coupon**.

5. Select the **Use Auto Generation** check box. Perform other rule configurations, if necessary.

Important Note: Shopping cart price rules with auto-generated coupon codes cannot be used in automated email reminders. If the shopping cart price rule for which you set **Specific Coupon** *in the* **Coupon** *field has been used in an automated email reminder rule, it will be automatically unassigned after saving the rule.*

6. Click **Save and Continue Editing**. The **Manage Coupon Codes** tab appears. See Figure 221.

7. On the **Manage Coupon Codes** tab, specify the quantity of codes to be generated in the **Coupon Qty** field, correct the code format settings (if necessary) and click **Generate**. The generated coupon codes appear in the grid. For each coupon, you can see whether it has been used and how many times. To delete the coupon codes, select the check boxes in the first column, select **Delete** from the **Actions** drop-down menu, and click **Submit**.

8. To export the codes, filter the list of codes so that only the desired codes are displayed, choose the file extension in the **Export to** field, click **Export**, and save the file.

Figure 221. Generating and Managing Coupon Codes

Tracking the Usage of Coupon Codes

Information about how often each coupon was used is displayed in the grid on the **Manage Coupon Codes** tab of the Shopping Cart Price Rule page. See Figure 221 above for illustration of the grid. You can also create detailed report about coupon usage in orders.

To create a report about the usage of coupons generated for a specific shopping cart price rule:

1. Navigate to **Reports** > **Sales** > **Coupons**. The **Coupons Usage Report** page opens.

2. In the **Show Report For** field select the scope, configure report filters. In the **Shopping Cart Price Rule** field select **Specified** and select the desired rule(s).

3. Click **Show Report** in the upper right corner of the page.

26 Special Prices and Product Group Price

Special Prices and Product Group Prices give you additional flexibility in creating and managing price promotions.

26.1   Special Prices

Special prices enable you to define a discounted price for a product for a specified period of time.

To define Special Price:

1. In the Admin Panel, select **Catalog > Manage Products** to display the list of products.

2. Click the **Edit** link on the right side of the relevant product's row.

3. Click the **Prices** tab in the left navigation panel. See Figure 222.

Figure 222. Prices Options

4. In the **Special Price** field, enter the special price.

5. Optionally, set **Special Price From / To Date**. If you leave these fields blank, the special price is applied immediately and applies until removed on the same page.

6. Click **Save**.

The special price is shown on the frontend as shown in Figure 223.

Figure 223. Special Price – Frontend

26.2   Product Group Price

The Product Group Price feature enables you to set different product prices for different customer groups on the product level. The functionality is aimed at improving the admin user experience with setting promotional prices for customer groups.

Terminology

❖ **Regular price**: The value of the *price* system product attribute (which by default corresponds to the **Price** field on the **Prices** tab of the Product Information page available under **Catalog** > **Manage Products** > *%desired product%*).

❖ **Promotional price:** A product price that is defined by any of the following system product attributes: *special_price, group_price,* or *tier_price*; or the resulting price after a catalog price rule is applied.

Note: The group_price attribute is a system product attribute which was added for storing the group price value.

Setting a Group Price for a Product

To set a group price for a catalog product:

1. Log in to the Magento Admin Panel.

2. Navigate to **Catalog** > **Manage Products** > %desired product%. The Product Information page opens.

3. On the **Prices** tab in the **Group Price** field click **Add Group Price**.

4. Select the target customer group and specify the price for the selected group. The **Website** column defines the scope of the **Group Price** field.

> *Note: For bundle products, the group price is specified as a discount percentage. If bundle items have their own group prices set for the same customer group, then the discount specified for the whole bundle product is applied to these group prices.*

5. To save your changes, click **Save** or **Save and Continue Edit**.

Group Price Implementation Details

A group price can be specified for the following product types:

- ❖ Simple
- ❖ Configurable
- ❖ Virtual
- ❖ Bundle
- ❖ Downloadable

The list of product types for which a group price can be specified is defined in the settings of the *group_price* product attribute. The settings are available under **Catalog** > **Attributes** > **Manage Attributes** > *group_price*. The list of product types, for which the attribute is used, can be configured in the **Apply To** field.

> *Note: For the Grouped and Gift Card product types, the Group Price functionality will not be applied even if these product types are selected in the **Apply To** field of the group_price attribute. In this case, for Grouped products, the Group Price field will not even be displayed on the Product Information page in the Admin Panel. For Gift Card products, the Group Price field will be displayed, but its value will not be considered by the system.*

Displaying the group price in the frontend fits the general logic of price displaying in Magento. If, besides the regular price, a product has promotional price(s), the lowest price value is displayed in the frontend. If a product custom option has price set as a percentage, than the lowest promotional price will be used as base for the calculation. The same logic is applied when the associated products (the options) of a configurable product have prices set as a percentage.

The following table illustrates how the minimum promotional price logic is implemented. The table provides several examples, but it is not an exhaustive list of possible combinations.

Backend Price Settings	Price Displayed in the Frontend
Price = $4 Special Price = $5 Tier Price = $3	For customers from the tier price group(s): $ 4 As low as: $3 For customers from other groups: $4
Price = $5 Special Price = $3 Tier Price = $4	For all customers: ~~Regular Price: $5~~ Special Price: $3

Backend Price Settings	Price Displayed in the Frontend
Price = $5 Special Price = $3 Tier Price = $4 Price after a catalog price rule applied = $2	For customers from the catalog price rule group: ~~Regular Price: $5~~ Special Price: $2 For customers from other groups: ~~Regular Price: $5~~ Special Price: $3
Price = $5 Special Price = $4 Group Price = $3	For customers from the price group: ~~Regular Price: $5~~ Special Price: $3 For customers from other groups: ~~Regular Price: $5~~ Special Price: $4

Important Note: When a group price is set for a product, then the catalog price rules for the corresponding customer groups are applied to the group price, not to the regular price.

27 Tier Pricing

Tier Pricing is a promotional tool that enables a web store owner to price products differently when higher quantities are purchased. This is an effective way to move more merchandise and appeal to customers who buy more than one product at a time. When a customer adds a certain quantity of a product to their shopping cart, the price is automatically changed to reflect the discount.

To define Tier Pricing:

1. In the Admin Panel, select **Catalog > Manage Products** to display the list of products.

2. Click the **Edit** link on the right side of the relevant product's row.

3. Click the **Prices** tab in the left navigation panel. See Figure 224.

4. Add tiers by clicking the A**dd Tier** button. You can create as many tiers as you need.

Figure 224. Specifying Price Tiers

5. Click **Save**.

> *Tip:* To apply a tier to multiple groups, but not all groups, create multiple tiers, each with the same Qty and Price information and select a different customer group in each.

The prices on the frontend take precedence from the highest to the lowest quantity. Therefore, if you have a tier for the quantity 5 and one for the quantity 10 and a customer adds 5, 6, 7, 8 or 9 items to the shopping cart, then the customer gets the discounted price that you specified for the quantity 5 tier. As soon as the customer adds the 10th item, the discounted price specified for the quantity 10 tier supersedes the quantity 5 tier and that discounted price (of 10) applies instead.

After saving the product, it shows the Tier Pricing block on the frontend. See Figure 225.

▸ Buy 5 for **$89.99** each and *save 11*%
▸ Buy 10 for **$69.99** each and *save 31*%
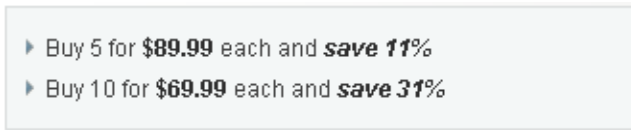
Figure 225. Tier Pricing Block- Frontend

On the product listing pages, the best available deal is displayed below the regular price, as shown in Figure 226.

Microsoft Natural
Ergonomic Keyboard
4000

$99.99
As low as: $69.99

Add to Cart

Add to Wishlist
Add to Compare

Figure 226. "As Low As" Indication

28 Minimum Advertised Price (MAP)

This chapter describes how a Minimum Advertised Price (MAP) policy can be applied in Magento.

28.1   Minimum Advertised Price – General Concept

If you have a minimum advertised price in the agreement with a manufacturer, you can still sell the merchandise at lower price, though this price will be hidden. It will not be visible to customers on the product page and will not be indexed by search engines. As a result, a price below the minimum advertised will not appear in any catalog of products collected from multiple web stores. The "crossed-out" price, which can be displayed on catalog and product pages, will be the manufacturer's suggested retail price (MSRP). For storing the MSRP value, a new system attribute was added to the default attribute set.

An individual setting enables you to specify how the actual price is shown to customers: on clicking the **Check for price** link on a catalog or product page, when a product is added to the shopping cart, or before the order confirmation.

The MAP functionality can be applied to all product types except gift card products, and bundle products with dynamic pricing.

The MAP functionality only influences the way products prices are displayed on the frontend.

The following terminology is used in reference to this feature:

> ❖ **Actual Price:** The price that is specified in the Price of Special Price field on the product view page.

> ❖ **Manufacturer's Suggested Retail Price (MSRP):** The retail price as suggested by the manufacturer. The Actual Price is typically lower than MSRP.

28.2   Minimum Advertised Price – a Quick View

MAP can be enabled and configured under **System > Configuration > Sales > Minimum Advertised Price**. See Figure 227.

Figure 227. MAP Global Settings

After MAP is enabled, the configuration on the product level becomes available with the **Apply MAP**, **Display Actual Price**, and **Manufacturer's Suggested Retail Price** fields. See Figure 228.

Figure 228. MAP Settings on Product Level

When MAP is applied globally, all prices on the frontend are hidden; the **Click for price** links appear instead. If you specify the Manufacturer's Suggested Retail Price (MSRP), it will appear crossed-out. See Figure 229.

Figure 229. MAP Applied for the "Cuddle bear toy" and "Teddy bear toy" Products

The way the actual price is displayed depends on the **Display Actual Price** setting. The following options are available:

❖ **On Gesture** (default value): Clicking the **Click for price** link opens a pop-up window, containing the actual price and the information message. The actual price is shown on the last steps of the ordering process as well. See Figure 230.
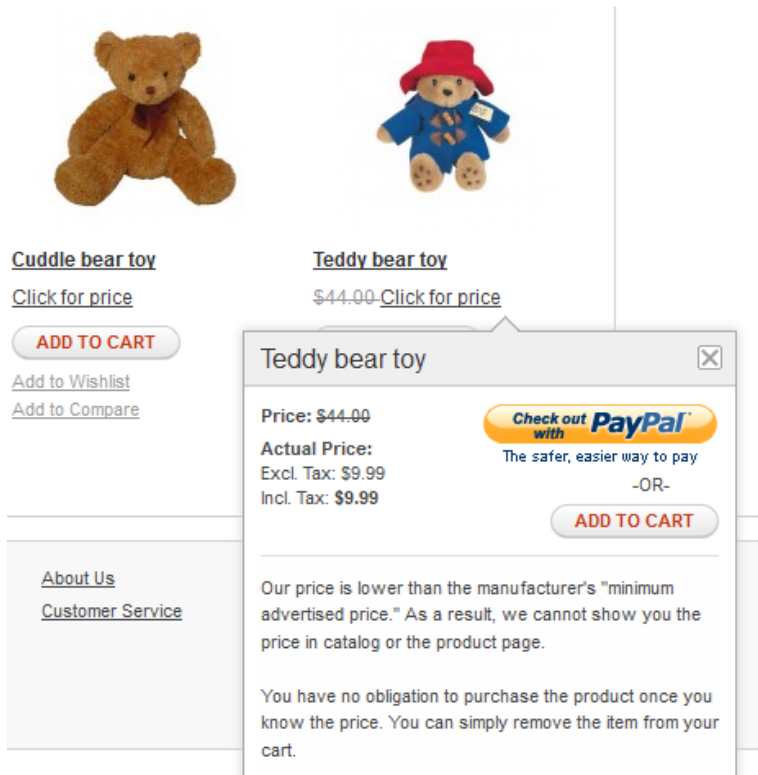
Figure 230. Display Actual Price Set to "On Gesture"

❖ **In Cart:** Clicking the **Click for price** link in a catalog redirects to the product page, where instead of the price or next to the crossed-out MSRP the following message is displayed: "To see product price, add this item to your cart. You can always remove it later." The **What's this** link is also included, which points to further explanations. The actual price of the product is displayed after it is added to the shopping cart. See Figure 231.
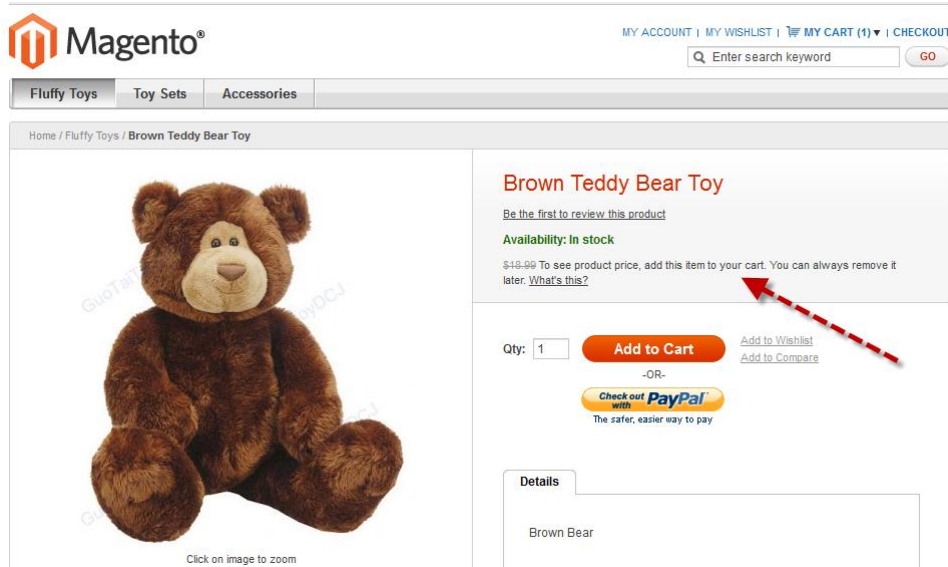
Figure 231. Display Actual Price Set to "In Cart"

❖ **Before Order Confirmation:** Clicking the **Click for price** link in a catalog redirects to the product page, where the following message is displayed instead of the price or next to the crossed-out MSRP: "See price before order confirmation." The **What's this** link points to further explanations. The actual price and totals are displayed on the Order Review step of the one-page checkout, or on the order review pages of the Google checkout or PayPal checkout. See Figure 232.

Figure 232. Display Actual Price Set to "In Cart"

For products that allow configuration on the frontend, and whose prices depend on the variant selected (the variants themselves can actually be either custom options or simple products with their own SKUs and stock management), the following logic is implemented if MAP is applied:

❖ MAP is applied to the main price; prices of the options, bundle items, and associated products (which add or subtract from the main price) are displayed normally.

❖ If a product does not have a main price, and its price is derived from the associated products' prices (such as in a grouped product), the MAP settings of the associated products are applied. Note that the MAP feature is not supported for bundled products with dynamic pricing.

Regarding other price settings, the MAP application logic is the following:

❖ If tier pricing is set, the tier price is displayed according to the **Display Actual Price** setting.

❖ If a special price is set, it is considered to be the actual price for MAP.

In the order management and customer management tools, as well as in the reports sections of the Admin Panel, only the actual price appears.

28.3   Setting Up MAP

MAP functionality can be configured at both the global and product levels.

On the global level, you can enable/disable the functionality, apply it to all products, define how the actual price is displayed, and edit the text of the MAP related messages and information tips on the frontend.

When MAP is enabled globally, product-level MAP settings become available. For a product you can choose to apply MAP, specify the MSRP, and define how the actual price is displayed.

Product-level MAP settings override the global ones.

28.4   Setting up MAP on the Global Level

By default the MAP functionality is disabled globally.

To enable and configure MAP:

1. In the Magento Admin Panel, select **System**, and click **Configuration**.

2. In the **Current Configuration Scope** in the upper left corner of the page, select the desired website.

3. In the left column under SALES, click **Sales**.

4. On the **Minimum Advertised Price** field set configure the following settings:

Option	Description	Scope
Enable MAP	Select **Yes** to enable the MAP.	Website
Apply MAP (Default Value)	Applies MAP to all catalog products. If set to **Yes**, all prices in the catalog on the frontend are substituted with the **Click for price** links. On product pages, the prices are either substituted with the **Click for price** links or with the information about how to see prices, depending on the **Display Actual Price** setting.	Website
Display Actual Price	Defines how the actual price is displayed on the frontend. Select from the following: • **On Gesture** - Clicking the **Click for price** link opens a pop-up window, containing the actual price. On all other stages of the ordering process (in the shopping cart, on the order review) the actual price is displayed normally. • **In Cart** - Clicking the **Click for price** link in a catalog redirects to the product page. On the product page, the price is replaced with the following message: *"To see price, add this item to your cart. You can always remove it later"*. The **What's this** link points to an information tip. The text of the information tip can be edited in the **Default "What's This" Text Message** field. The actual price is shown when customer adds the product to the shopping cart. It is also shown during the checkout as usual. • **Before Order Confirmation** - Clicking the **Click for price** link in a catalog redirects to the product page. On the product page the price is replaced with the following message: *"See price before*	Website

Option	Description	Scope
	order confirmation. "The **What's this** link points to the information tip. The actual price is displayed on the Order Review step of the one page checkout or on the order review pages of the Google checkout or PayPal checkout. In the shopping cart, neither the prices nor the subtotals are displayed. When there is at least one item in the shopping cart with **Display Actual Price** set to **Before Order Confirmation**, the order total is not shown in the cart. Instead, the message "Order total will be displayed before you submit the order" is shown. The option selected defines how product prices are displayed in Wishlists and comparison lists as well	
Default Pop-up Text Message	The text field for editing the information message displayed if the **Display Actual Price** field is set to **On Gesture**.	Store view
Default "What's This" Text Message	The text field for editing the text of the **What's this** information tip.	Store view

5. To save the configuration, click the **Save Config** button in the upper-right corner of the page.

28.5   Setting Up MAP on the Product Level

MAP settings on the product level become available once the MAP functionality is enabled.

For gift cards and bundle products with dynamic pricing, the MAP settings are not available.

To configure MAP settings on a product level:

1. Select **Catalog** and click **Manage Products**.

2. Open the product for editing.

3. On the **Prices** tab, the following MAP settings are available:

Option	Description
Apply MAP	Defines whether MAP is applied to the product.
Display Actual Price	Defines how the actual price of the product is displayed on the frontend. The value here overrides the corresponding global setting.
Manufacturer's Suggested Retail Price	The price at which a manufacturer "suggests" to sell the product. If specified, it appears crossed-out on the catalog and product pages on the frontend.

4. To save the settings click **Save** or **Save and Continue**.

Note: If a product added to the shopping cart has MSRP specified, it will not be displayed crossed-out in the mini shopping cart or in the shopping cart side block.

28.6   How MAP Is Applied for Different Product Types

The following describes how MAP is applied for different product types.

Product type	MAP implementation
Simple, Virtual	The actual price is not shown on the catalog and product pages; it is displayed according to the **Display Actual Price** setting. The custom options prices are displayed normally.
Grouped	Prices of the associated simple products are not shown on the catalog and product pages; they are displayed according to their **Display Actual Price** setting.
Configurable	The actual price is not shown on the catalog and product pages; it is displayed according to the **Display Actual Price** setting. The prices of the options are displayed normally.
Bundle with fixed price	The actual price is not shown in the catalog; it is displayed according to the **Display Actual Price** setting. The prices of the bundle items are displayed normally.
Downloadable	The actual price is not shown on the catalog and product pages; it is displayed according to the **Display Actual Price** setting. The prices of the links are displayed normally.

28.7   How MAP Is Applied for Different Price Settings

The following describes how MAP is applied for different price settings.

Price setting	MAP implementation
Tier Price	If tier pricing is set, the tier pricing message is not displayed in the catalog. On the product page a notification is displayed that indicates that the price can be lower when ordering more than a certain quantity, but the discount is displayed in percentages only. For associated products of a grouped product, the discounts are not displayed on the product page. The tier price is shown according to the **Display Actual Price** setting.
Special Price	If the Special price is specified, the special price is displayed according to the **Display Actual Price** setting.

29 Newsletters

Magento provides a Newsletter feature, which enables store administrators to send newsletters to customers who have registered to receive them.

The first step in creating newsletters is to configure the newsletter settings for your site.

To configure newsletter settings on your site:

1. In the Admin Panel, select **System > Configuration** to display the configuration page.

2. In the **CUSTOMERS** area in the left navigation panel, select the **Newsletter** option and expand the **Subscription Options** area to display the page shown in Figure 233.

Figure 233. Newsletter Subscription Options

3. In the **Need to Confirm** field, select **Yes** to specify that each customer that registers for a newsletter will receive an email asking them to confirm their registration. This technique is called double opt-in, meaning that customers confirm that they want to receive a newsletter twice. This method reduces the number of customers that consider your newsletter as spam.

29.1 Newsletter Templates

Before sending a newsletter, create a newsletter template. You can create and save as many of these as required for any situation, whether it be an annual holiday newsletter or weekly product updates.

To create a new newsletter template:

1. In the Admin Panel, select **Newsletter > Newsletter Templates** to display a page listing the previously defined newsletter templates. You can edit an existing template or create a new one.

2. To add a new template, click the **Add New Template** button to display the New Newsletter Template page, as shown in Figure 234.

Figure 234. New Newsletter Template Page

3. In the **Template Name** field, specify a unique and indicative name for this template. This value is not visible for customers.

4. In the **Template Subject** field, specify the subject of the email to be sent to your customers.

5. In the **Sender Name** and **Sender Email** fields, specify the name and email of the sender of the email to be sent to your customers.

6. In the **Template Content** field, use the WYSIWIG editor to compose the body of the email. Note that this field is pre-filled with tags showing an unsubscribe link in the email. We recommend that you do not remove this link so that all emails that are sent enable your customers to unsubscribe from the newsletter.

7. Click **Preview Template,** to display the content with the formatting as it will be viewed by your subscribers.

8. After you have finished editing the template, click the **Save Template** button to save it.

> *Tip: After you have saved a template, a **Save As** button appears when you edit this template. The **Save As** button enables you to duplicate the template, so that you can make changes and save the template as a new template without affecting the original template. This can save you time because you will not need to re-enter all the template information in order to create a new template. If you already have an existing template that is similar to the new template, simply edit the fields that you require, and then use the **Save As** button to create a new template.*

29.2   Newsletter Queues

A newsletter that has many recipients must be sent in stages. The process of sending the newsletter is managed by a queue. After you start this queue, Magento sends the emails in packs.

To send your newsletter using a queue:

1. In the Admin Panel, select **Newsletter > Newsletter Templates** to display a list of newsletter templates.

2. In the **Action** drop-down menu for the relevant template, select the **Queue Newsletter** option.

3. In the **Queue Date Start** field, specify when the newsletter will start being sent.

4. In the **Subscribers From** field, select one or more store views whose customers this newsletter will be sent to.

5. Review the template and parameters and then click the **Save Newsletter** button to schedule sending the newsletter.

> *Tip: To ensure delivery of your newsletters, it is recommended that you integrate your Magento installation with a third-party newsletter provider. These services are "whitelisted" by email service providers. Look for newsletter providers in the Magento Connect website.*

29.3   Newsletter Reports

Three newsletter reports are provided in the **Newsletter** menu:

❖ **Newsletter Queue:** Shows the newsletter queues that have been defined and indicates their progress in sending emails.

❖ **Newsletter Subscribers**: Shows a list of customers that have subscribed to your newsletter. It also enables you to unsubscribe these customers manually.

❖ **Newsletter Problem Reports**: Shows a list of errors that have occurred while sending the email. This Report enables you to remove the incorrect emails from the subscribers list.

30 Facebook Open Graph Extension 2.0 for Magento

The Facebook Open Graph 2.0 extension enables you to add custom social networking buttons to your store. The extension uses the new Facebook Open Graph 2.0 protocol.

30.1 Compatibility

The Facebook Open Graph 2.0 extension is compatible with Magento Enterprise Edition and Professional Edition 1.8 and later, and Magento Community Edition 1.3 and later.

30.2 Downloading and Installing

The Facebook Open Graph 2.0 extension is free of charge; you can download it from [Magento Connect](#), the official marketplace for Magento extensions.

30.3 Installing

You can install the extension using the Magento Connect Manager. To access it in the Magento Admin Panel navigate to **System** > **Magento Connect** > **Magento Connect Manager**.

30.4 Setting Up

To make new social networking buttons appear in your store, after installing the extension you need to take two basic steps:

1. Create an application on the Facebook Developers site
2. Configure Magento

In the following subsections these procedures are described in detail.

Creating an Application on the Facebook Developers Site

The current implementation of the Facebook Open Graph 2.0 extension requires an application to be created manually on the Facebook Developers site.

To create an application:

1. Navigate to https://developers.facebook.com/
2. Click **Apps** in the top menu.

3. Click **Create New Application** and perform all of the steps of the app creation wizard. Using the app by the Facebook Open Graph 2.0 extension implies the following restrictions and requirements:

❖ Please note that the App Namespace value, which you set on the first step of the app creation, will be used in Magento configuration.
In the left column select **Settings** > **Basic**. Under the **Select how your app integrates with Facebook** heading select **Website**. In the **Site URL** field enter your store address. See Figure 235.

Important Note: Your website and store should have one domain name.
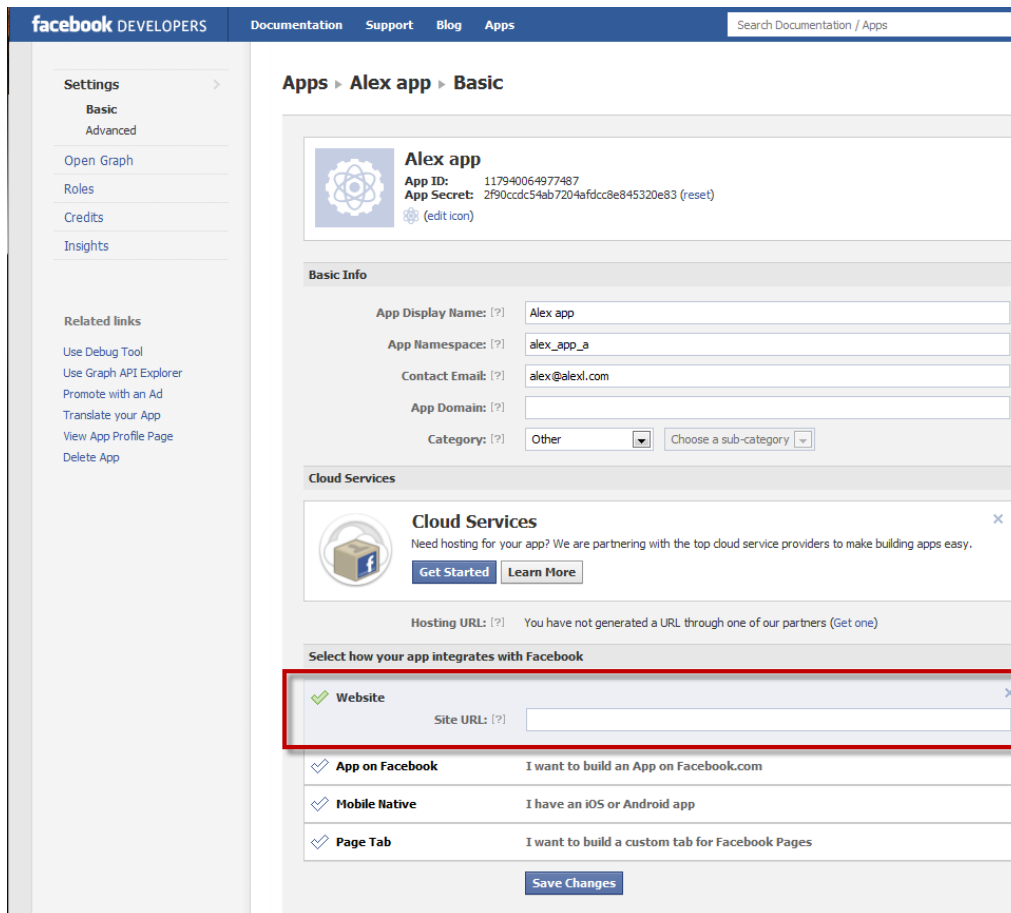
Figure 235. Website Settings on Facebook Developers

❖ For **Action Types** in the **Advanced** settings in the **Graph API URL** field enter **own**, **want** or other action you want to be associated with a social networking button on your product pages. This title is for internal use. See Figure 236.
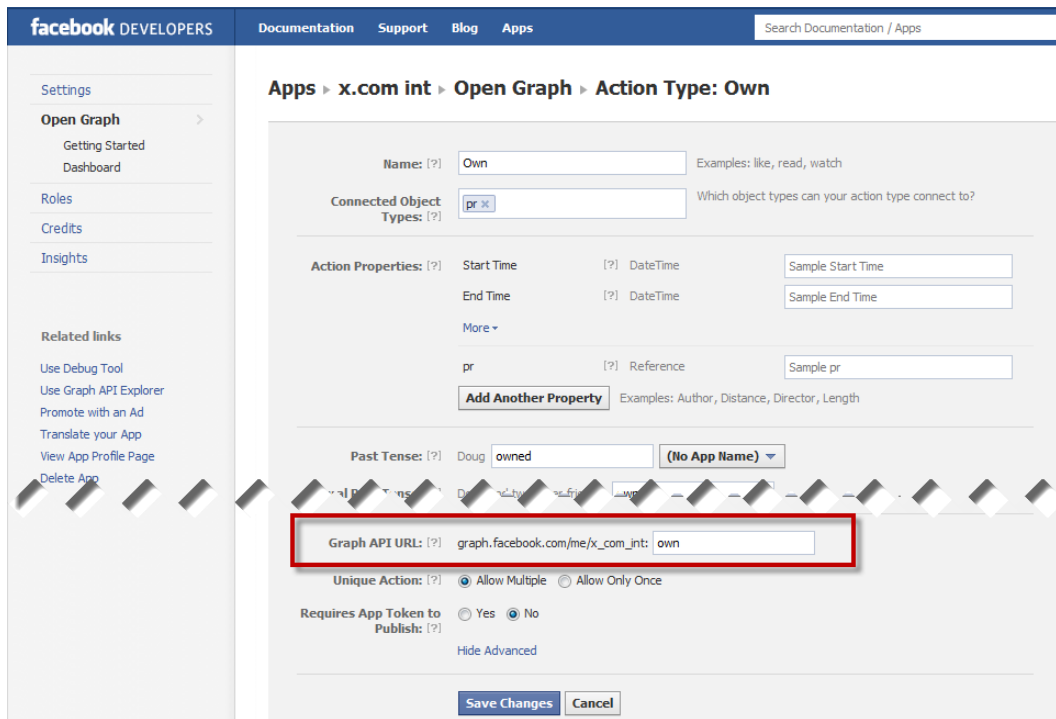
Figure 236. Object Type Settings in the Facebook Developers Application

Note: *You cannot set the "dislike" action as it is not supported by Facebook Open Graph 2.0.*

❖ The Object Type you create should have the following Object Properties:

- o   URL (page URL)
- o   Title (product title)
- o   Image (image URL)
- o   Description (product description)
- o   Price

By default, a new Object Type has only the first four properties. To add the Price property, use the **Add Another Property** button on the Object Type page. See Figure 237.
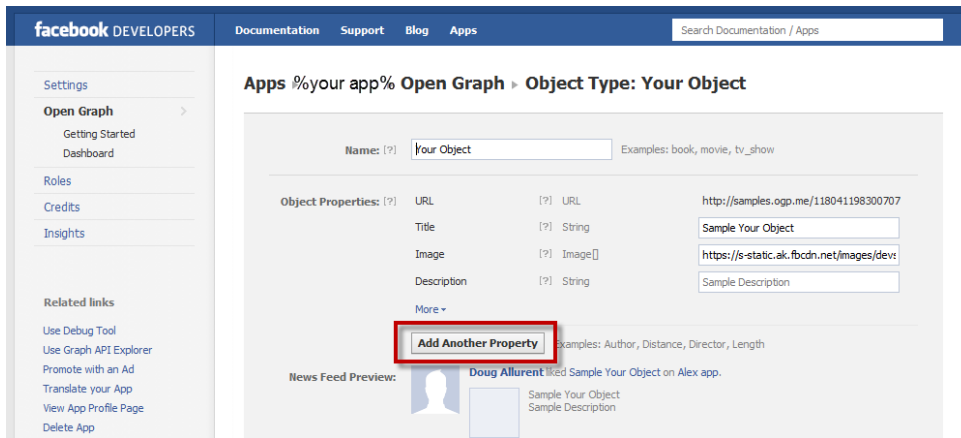
Figure 237. Adding Properties to an Object Type

Configuring Magento

To configure the Facebook Open Graph 2.0 extension settings in Magento Admin Panel:

1. Navigate to **System** > **Configuration** > SOCIAL > **Facebook**. If you don't see the SOCIAL heading in the left column, you may have not installed the extension.

2. In the **Current Configuration Scope** drop-down menu in the upper left corner of the page select your website.

3. Under **Facebook Config** set the following:

   ❖ **Enable Facebook on Frontend:** Select **Yes** if you want social buttons to appear on the frontend.

   ❖ **App Namespace:** Enter the App Namespace value of your application. You can find it in the Basic Settings section of your app on the Facebook Developers site. See Figure 238.
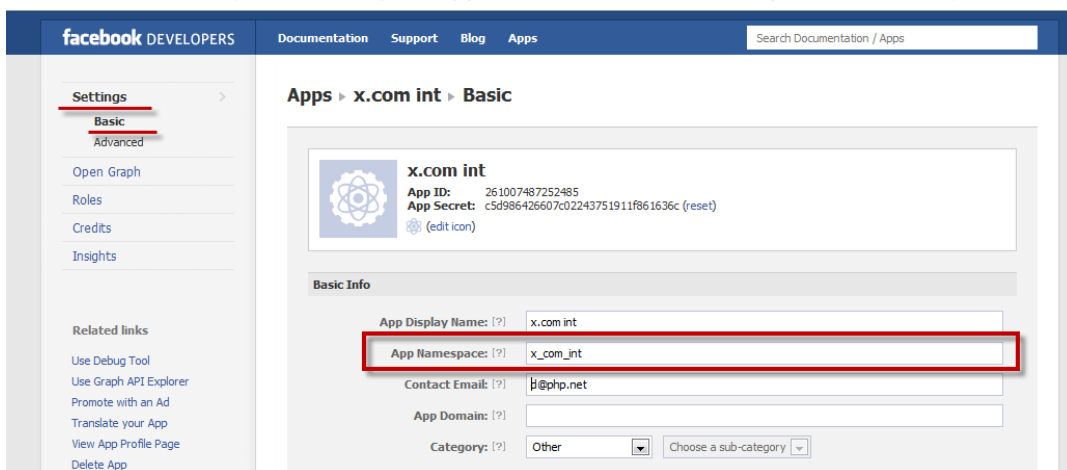
Figure 238. App Namespace Value

   ❖ **App ID** and **App Secret:** Specify the App ID and App Secret values of your application. You can find it in the Basic Settings section of your app on the Facebook Developers site. See Figure 239.
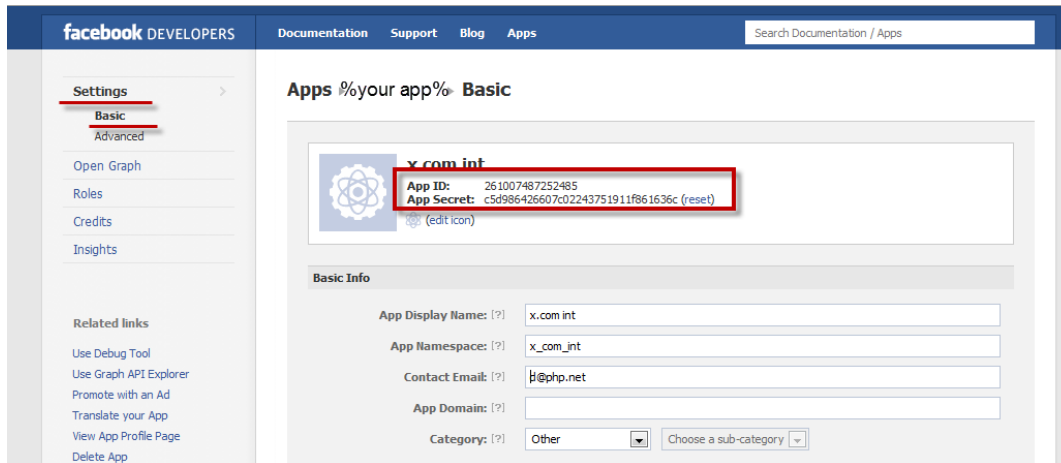
Figure 239. App ID and AP Secret Values

❖ **Object Type** – Enter the Open Graph Type value of your Object Type. To find it on the Facebook Developers site, open the settings of your application, navigate to **Open Graph** > **Dashboard**, click your object type, and expand the **Advanced** settings. On the page header the system will display the **Apps** > *%Your Facebook Application Name%* > **Open Graph** > **Object Type:** *%Object name%.* See Figure 240.
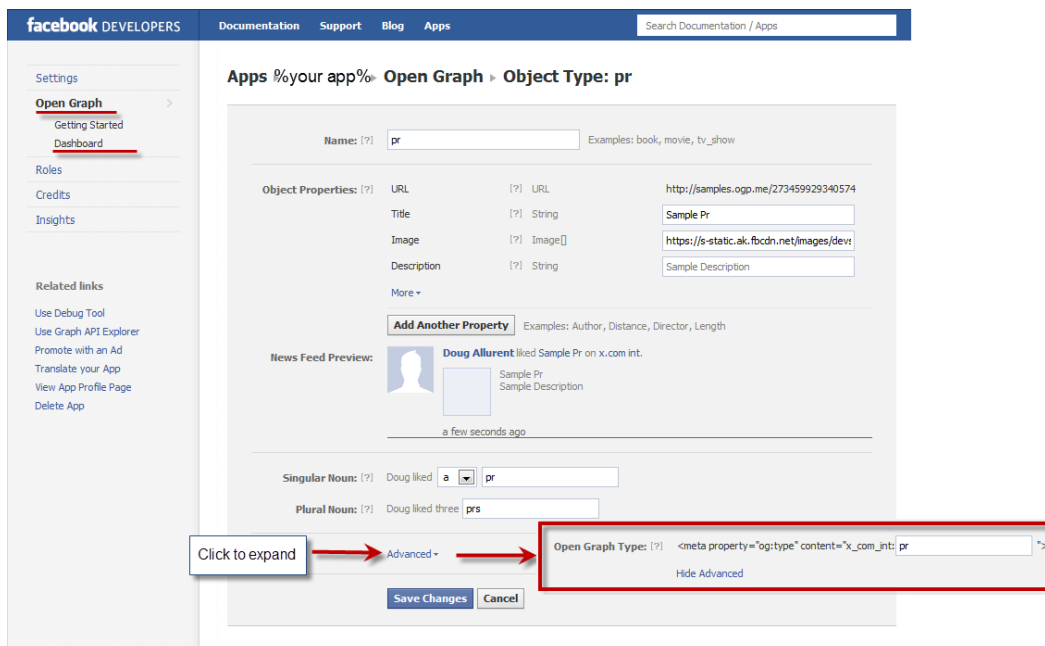
Figure 240. Open Graph Type Setting

❖ **Actions Settings** (can be different for each store view: To add and configure a social networking button, click **Add Action Button.** For each button, specify the following:

   o In the **Action** column, specify the internal button action title, for example, *own* or *want*. This value should correspond to the value you have specified in the **Graph API URL** field on the Facebook Developers site. The **Graph API URL** field is available in the **Advanced** section of the Action Type settings. See Figure 236.

o In the **Button Title** column, specify the name of the social networking button as you want it to appear in the frontend.

o In the **Enable FriendBox** column decide if you want to display in the frontend the related Facebook block, which contains the count and the pictures of friends.

o In the **Count in FriendBox** column, set the maximum number of friends that can be displayed in the related Facebook block. By default, it is set to 3. If you set zero value (0) or leave the field empty, then the default value is applied.

4. To save the configuration, click **Save Config** in the upper right corner of the page.

Now the social networking buttons you have created and the corresponding Facebook blocks will appear on the product pages of your web store. In the following section of this guide you can find the detailed description and illustrations of how these buttons look and work.

30.5 Facebook Open Graph 2.0 Extension: Customer Experience

When the Facebook Open Graph 2.0 extension is successfully installed and all configuration is done, the social networking buttons will be displayed on each product page in the frontend, along with the Facebook blocks providing the information about other Facebook users and friends who clicked your social networking buttons for the product (if set to be displayed). Information provided in the blocks depends on the customer who is logged in to Facebook and whether his or her friends have performed some actions with your app (that is clicked your social buttons). The following situations are possible (in this example, the **Want** and **I own this** social networking buttons were added):

1. Customer is not logged in to Facebook. See Figure 241.
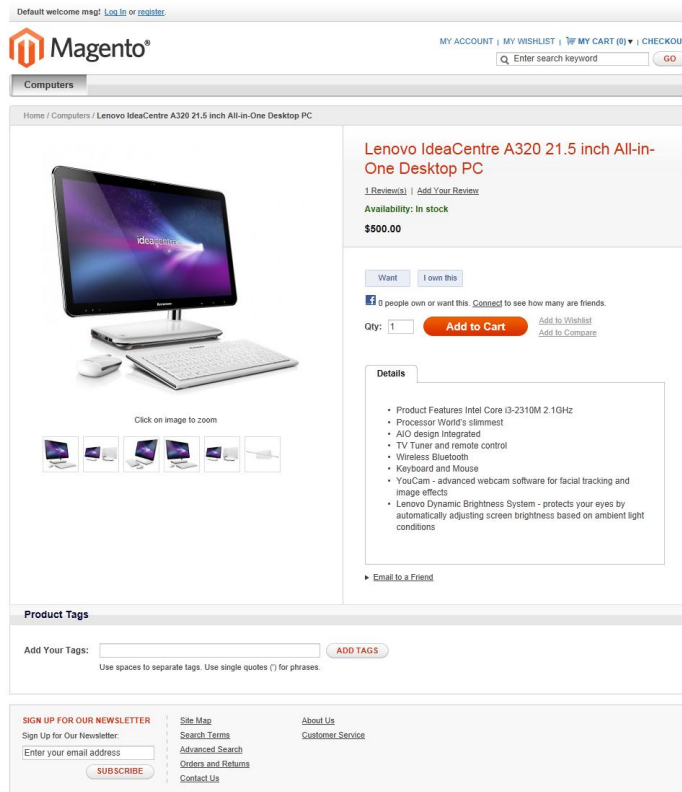
Figure 241. Product Page: Customer Not Logged In to Facebook

2. Customer is logged in to Facebook, but none of the customer's friends wants or owns the product. See Figure 242.
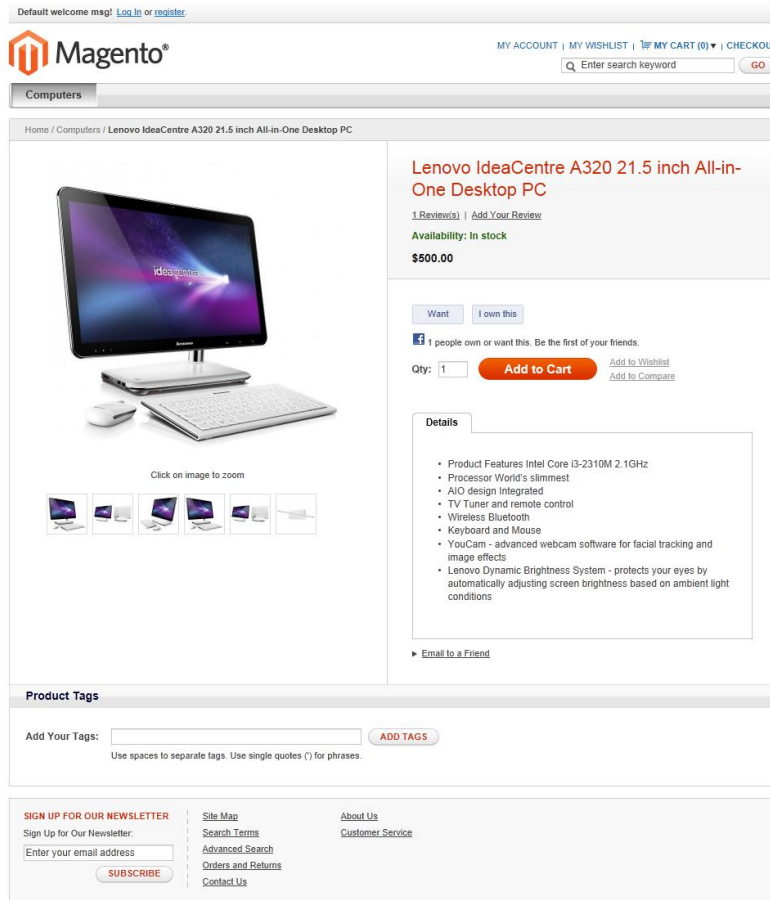
Figure 242. Product Page: Customer Logged In to Facebook; No Friends Want or Own the Product

3. Customer is logged in to Facebook, but he or she has not performed any action with the app yet. See Figure 243.
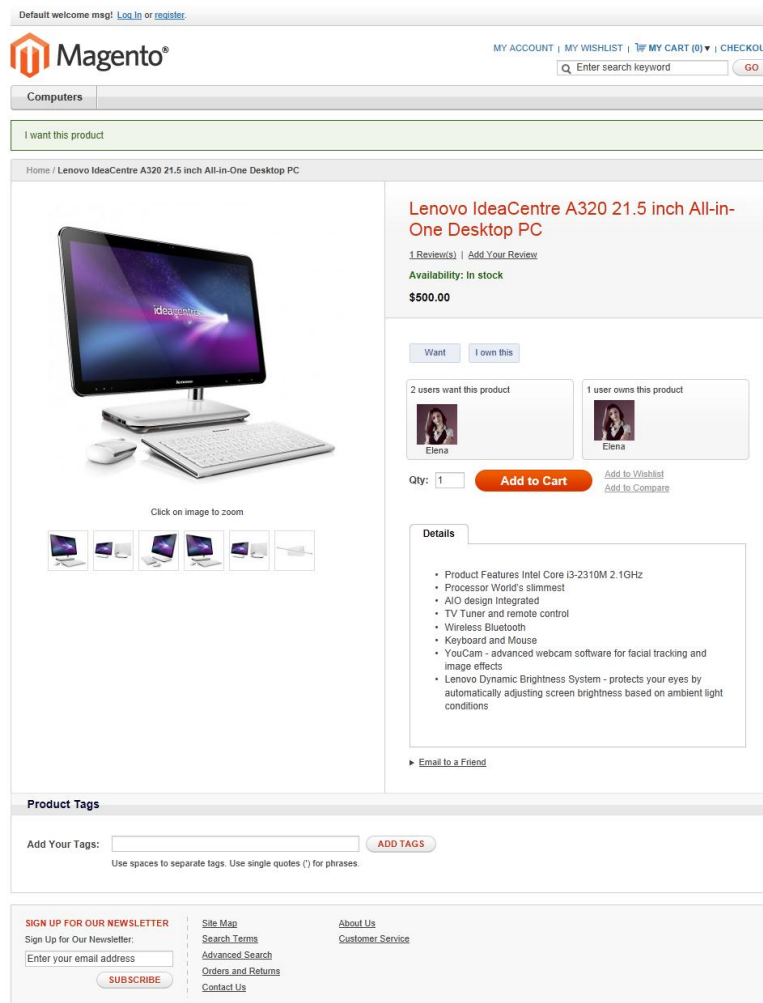
Figure 243. Product Page: Customer Logged In to Facebook; Has Not Performed Action with the App

4. Customer is logged to Facebook, and his or her friends have already performed some action with the app. See Figure 244.

Figure 244. Product Page: Customer Logged In to Facebook; Friends Have Already
   Performed Action with the App

31 Managing Orders and Customers

This chapter describes how to manage customer records and how to add orders from the backend.

31.1 Managing Customers

Viewing and Editing Customers

To view existing customers:

1. In the Admin Panel, select **Customers > Manage Customers** to display the Manage Customers page, as shown in Figure 245. The Manage Customers page contains a list of all the customers that opened accounts in your web store or were added using the **Add New Customer** feature.

Figure 245. Manage Customers Page

2. Click the **Edit** link on the right side of a customer's row to display the customer information page, as shown in Figure 246.

Figure 246. Customer Information Page

The tabs in the left panel provide a variety of types of information about the customer and for handling the relationship with a customer, such as: when the customer last logged in and out, addresses, ordering statistics, recent orders, current shopping cart contents, their last reviews, the newsletter to which they subscribed and so on.

Adding a Customer

Customers typically register themselves in your web store using the **My Account** link in the header of each page. In addition, you can use the following procedure to add a customer using the backend.

To add a new customer:

1. In the Admin Panel, select **Customers > Manage Customers**.

2. Click the **Add New Customer** button to display the New Customer page, as shown in Figure 247.

Figure 247. New Customer Page

This page enables you to define basic identifying information about the customer and his/her various addresses. Many aspects of the information retained about a customer in Magento can be accessed by editing the customer's information, as described in "Viewing and Editing Customers," page 314.

3. The fields on this page are self-explanatory. Specify the customer's information and then click the **Save Customer** button.

Managing Customer Groups

The customer group to which the customer belongs determines which discounts are given to this customer, as defined in the **Catalog Price Rules** and **Shopping Cart Price Rules** (described in "Catalog and Shopping Cart Price Rules," page 274), and the tax rule that is applied to that customer.

To create and edit customer groups:

1. In the Admin Panel, select **Customers > Customer Groups** to open the Customer Groups page, as shown in Figure 248.

Figure 248. Customer Groups Page

2. Do one of the following:

❖ To create a new customer group, click **Add New Customer Group**.

❖ To edit an existing customer group, click the row for the desired group.

The customer group editing page opens, as shown in Figure 249.

Figure 249. New Customer Group Page

3. Specify a unique name for this customer group (or modify the existing name).

4. Select a tax class to associate with this group.

5. Click **Save Customer Group.**

Checking Online Customers

You can check which customers are currently online and view their activity.

To view online customers:

In the Admin Panel, select **Customers > Online Customers** to display the Online Customers page, as shown in Figure 250.

Figure 250. Online Customers Page

Customer Reports

A variety of customer reports can be generated by selecting **Reports > Customers** in the Admin Panel.

The following describes the available customer reports:

- ❖ **New Accounts:** Shows the customers that have opened accounts in your web store during the period that you specify.
- ❖ **Customer by orders total**: Lists customers in descending order of money spent in your web store.
- ❖ **Customer by number of orders**: Lists customers in descending order of number of orders placed in your web store.

Importing and Exporting Customer Information

For information about importing and exporting customer information, see "Importing and Exporting Product and Customer Data," page 124.

31.2   Managing Orders

The section "Managing Orders, page 31, introduces the procedures for handling the day-to-day order management tasks in your web store. This section assumes that you are familiar with that information.

See "Viewing the Orders in Your Web Store," page 32, for a description of how to view and edit the Orders in your web store. This section goes into more details about the order life cycle in Magento.

Orders Terminology

This section describes some of the terms used for handling orders in Magento. In addition to creating orders, there are many features in the Magento backend that are part of the process of managing and fulfilling orders, such as creating invoices, shipments, and credit memos, and editing and cancelling orders.

Sales Order

When an order is created in a Magento web store, either in the frontend or in the backend, a sales order record is created to record this transaction. This sales order can be seen in the orders list by selecting the **Orders** option from the **Sales** menu in the backend.

This is only a temporary record. Payment has not yet been processed and the order can still be canceled.

Invoice

An invoice is a record of the receipt of payment for an order.

> **Note:** *In some cases, payment is automatically received during the creation of an Invoice.*

Creating an invoice converts the temporary sales order into a permanent record of an Order, which can no longer be canceled.

Multiple invoices can be created for a single order, each containing as much or as few of the purchased products that you specify.

Shipment

A shipment is a record of the products in an order that have been shipped. As with invoices, multiple shipments can be associated with a single order, until all of the products in the order are shipped.

Credit Memo

A credit memo is a record of a refund. A product cannot be refunded until it has been paid (which means that it has been invoiced). This means that you are not able to create a credit memo before an invoice has been created.

The credit memo serves as a record of a refund, but it is not a record of the actual return of funds to the customer.

Creating New Orders

This section describes how to create an order using the backend, such as when an order is received on the phone.

To create a new order from the backend:

1. In the Admin Panel, select **Sales > Orders.**

2. Click the **Create New Order** button on the top right of the page to display the Create New Order page, as shown in Figure 251.
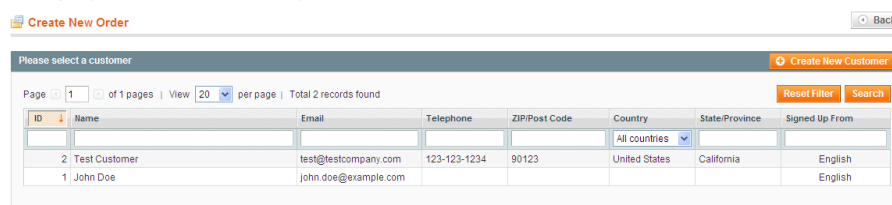
Figure 251. Create New Order Page

3. Select a customer If you have multiple websites, stores, or store views, select the one to which this order applies. The Create New Order for *<customer>* page opens, as shown in Figure 252.

Figure 252. Create New Order for *<customer>* **Page**

4. Click the **Add Products** button to display the list of products, as shown in Figure 253.

Figure 253. Product List for Creating Orders

5. Use the check boxes to select the products to be purchased, and click the **Add Selected Product(s) to Order** button.

> *Tip: If you selected one of the existing customers, then the left column shows a list of the products that this customer has in his/her cart, wish list, recently ordered, viewed, or compared. To add one those products to the order, select the required product and click* **Update Changes** *button.*

6. Complete the other mandatory fields of the order. Mandatory fields are marked by an asterisk (*).

7. You can define many options for the order, such as choosing custom prices for products and applying discount codes.

8. After you have completed all the required order information, click the **Submit Order** button to display the order information page.

9. To confirm payment, click the **Invoice** button to generate an invoice for your review.

10. Review the invoice, and if all is well, click the **Submit Invoice** button at the bottom of the page.

11. When you are ready to ship the products, click the **Ship** button to generate a Shipment document.

12. If applicable, you can add a tracking number received from the shipping service by clicking the **Add Tracking Number** button. Adding a tracking number enables customers to view the status of their shipment using the shipping carrier's website.

13. Review the shipment. You can modify the quantity to be shipped if only part of the order is ready.

   The order status changes to **Completed** after all its products have been shipped.

14. Click the **Email Copy of Shipment** option to automatically send an email to notify the customer that the products were shipped.

15. Click the **Submit Shipment** button at the bottom of the page.

16. Click the **Back** button to return to the orders page, where you can create additional Orders if needed.

Clearing the Shopping Cart

If, at any time during the ordering process, the customer decides not to move forward with the order, you can clear the customer's shopping cart in either of two ways:

❖ Click the **Clear Shopping Cart** button on the Create New Order page (see Figure 254).
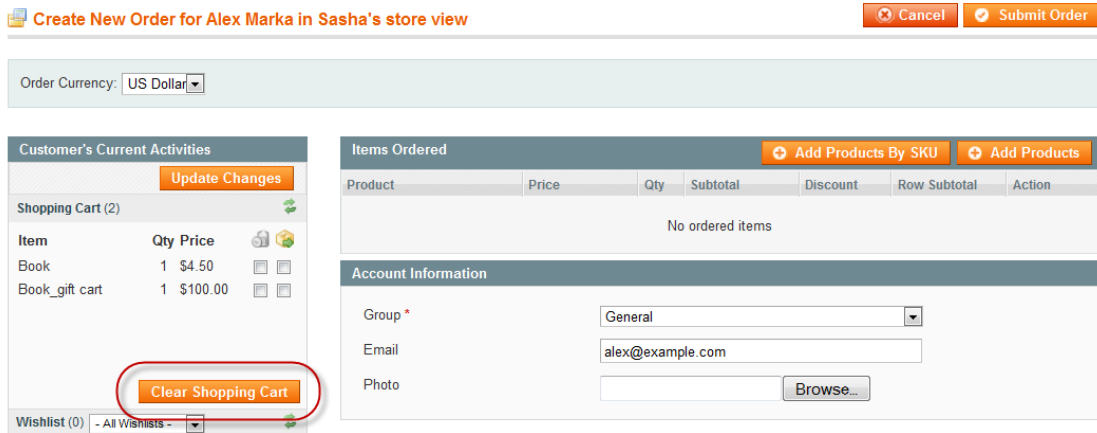
Figure 254. Clearing the Shopping Cart on the Create New Order Page

❖ Click the **Clear Shopping Cart** button on the Shopping Cart page (**Customers** > **Manage Customers** > *%customer%* >**Manage Shopping Cart**); see Figure 255.
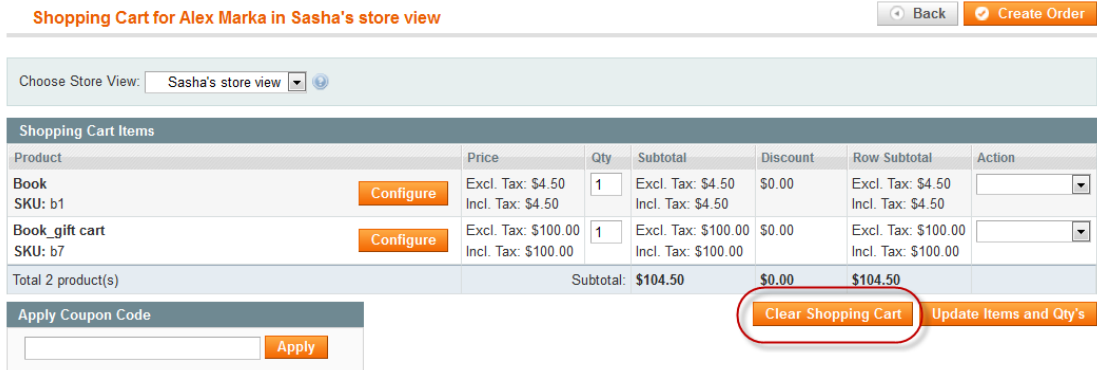
Figure 255. Clearing the Shopping Cart on the Shopping Cart Page

Refunding

You can create a record of a product refund from an existing order by generating a credit memo.

To view the list of refunds made in your web store:

From the **Sales** menu, select the **Credit Memos** option to display the Credit Memos page, as shown in Figure 256.

Figure 256. Credit Memos Page

To refund a product from an existing order:

Note: *You can create credit memos only for orders for which invoices were created. Without an invoice, an order is assumed not to be paid so that there is nothing to refund.*

1. In the Admin Panel, select **Sales > Orders** to display a list of the existing orders.

2. Click the **View** link on the right side of the row of the desired order to display the order view page.

3. Click the **Credit Memo** button to generate a credit memo.

4. Scroll down to the **Items to Refund** area, and in the **Qty to Refund** field of each relevant product, specify the quantity of products to refund.

5. To specify that this product was actually returned to the web store, select the **Return to Stock** check box, as shown in Figure 257.

Figure 257. Items to Refund

6. (Optional) Select the **Email Copy of Credit Memo** check box, as shown in Figure 258, to automatically send an email to the customer that the order has been refunded. You can also adjust the refund totals to match your business rules.

Refund Totals

Subtotal	$15.00
Tax	$1.24
Refund Shipping	5
Adjustment Refund	0
Adjustment Fee	0
Total Refund	**$21.24**

Append Comments ☐

Email Copy of Credit Memo ☐

✓ **Refund**

Figure 258. Refund Totals

7. Click the **Refund** button at the bottom of the page. The total of the order from which this product was refunded is updated automatically.

8. Click the **Back** button to return to the orders page where you can create additional orders, if required.

> *Note: Refunding an order in Magento does not cause an actual payment refund. You must refund the payment on your own. The credit memo is only a record used to track the refunds and to provide proper values in the reports.*

32 Managing Customer-Generated Content

This chapter describes how to manage customer generated content, such as ratings, reviews, tags, and polls.

32.1   Managing Ratings and Reviews

Rating and review functionality is provided by Magento to enable customers and web store owners to give their opinions, feedback, and comments about products. Ratings and reviews appear in the frontend, as shown in Figure 259.

Figure 259. Ratings and Reviews Links on the Frontend

The quantity of stars indicates the satisfaction rating. You can click on the **Review(s)** link to display the actual reviews provided by customers or input your own Review, as shown in Figure 260.
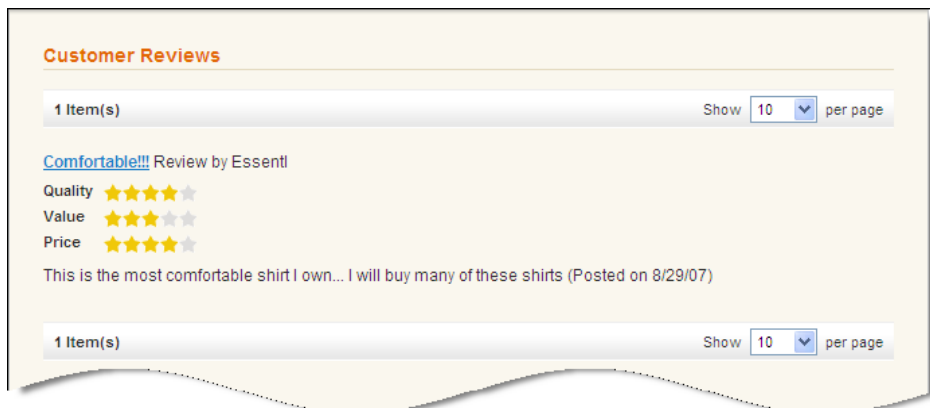
Figure 260. Customer Reviews Frontend Interface

To add a review, the customer clicks on the **Add Your Review** link on the product information page to open the Write Your Own Review page, as shown in Figure 261.

Figure 261. Write Your Own Review Page (Frontend)

Adding a Custom Rating

By default, the customer can rate the quality, price, and value of a product. You might want to add custom ratings, to enable customers to rate such aspects as durability, warranty, and so on. This section describes how to create a new customized rating.

1. In the Admin Panel, select **Catalog > Reviews & Ratings > Manage Ratings** to display the Manage Ratings page, as shown in Figure 262.

Figure 262. Manage Ratings Page

2. Click the **Add New Rating** button to display the New Rating page, as shown in Figure 263.

Figure 263. New Rating Page

3. In the **Default Value** field enter a name for this rating.

4. Click the **Save Rating** button.

Approving Reviews for Public Viewing

New reviews that are submitted by customers must be approved by the web store administrator in the backend before they appear on the frontend.

To view and approve new reviews:

1. In the Admin Panel, select **Catalog > Reviews & Ratings** > **Customer Reviews > Pending Reviews** to display the Pending Reviews page, as shown in Figure 264.

Figure 264. Pending Reviews Page

2. Click the **Edit** link on the right side of the relevant review's row to display the Review Details page, as shown in Figure 265.

Figure 265. Review Details Page

3. You can modify the review, if required.

4. In the **Status** field, change the **Pending** status to **Approved** or **Not Approved**.

32.2   Managing Tags

Tags can be assigned by customers directly in the frontend. A tag describes a specific property of a product, such as Cool, Valentine's gift and so on. Popular Tags serve as a descriptor that customers can select in order to view the products to which a specific tag has been assigned. Figure 266 shows an example of various tags as they appear in the web store.
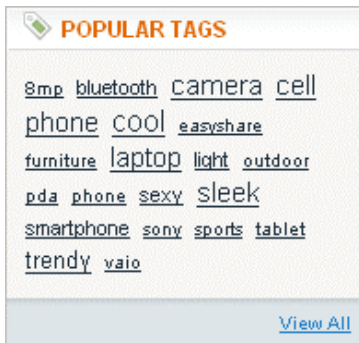
Figure 266. Tags Display in the Frontend

Adding Tags

The number of tags that can be added to a product is unlimited and they can later be renamed or deleted. To add one or more tags to a product, the customer scrolls down on the product page to the Product Tags section, as shown in Figure 267.
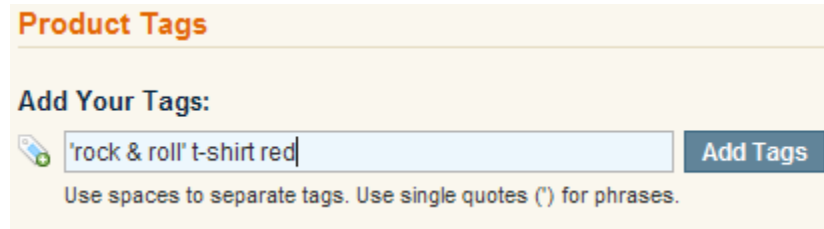
Figure 267. Adding Product Tags (Frontend)

Tags must be separated by spaces, and phrases (two or more words that comprise a single tag) must be enclosed in single quotation marks (').Figure 267 shows what it looks like when a customer adds three tags:

- ❖ rock and roll
- ❖ t-shirt
- ❖ red
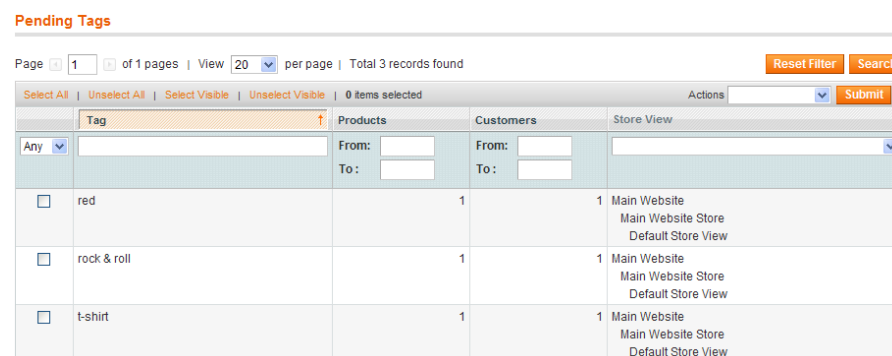
After a customer submits product tags, an administrator has to approve them on the backend so that they will appear on the frontend.

Approving Tags

Tags must first be approved by the backend administrator before they appear on the front-end. After a tag has been approved by the backend administrator, it can be used for other products and does not need to be approved again.

To approve a tag:

1. In the Admin Panel, select **Catalog > Tags** > **Pending Tags** to display the Pending Tags page, as shown in Figure 268.

Figure 268. Pending Tags Page

This page shows a list of tags that have not yet been approved.

2. Use the check boxes in the left column to select all of the tags that you want to approve (or all of the tags that you want to disable).

3. In the **Action** drop-down menu, select **Change Status**. The **Status** drop-down menu becomes visible.

4. In the **Status** drop-down menu, select **Approve** (or **Disable**).

> *Note: To modify a tag or view details about a tag, such as the product or products it was applied to, or the name of the customer who submitted it, click the row for that tag.*
>
> *Note: If a customer has entered a tag that you do not want to ever see again, simply change the status to **Disabled**.*

32.3   Managing Polls

Polls provide a powerful marketing tool for finding out the opinion of your customers about your products, store, customer service, or anything else.

It is very simple to create a poll. Figure 269 shows an example of how a poll appears in the frontend.

Figure 269. Poll on the Frontend

A poll occupies only a small amount of space on your store pages and is shown in the right column by default. Poll results are immediately displayed to the customer after the customer submits an answer, as shown in Figure 270.

Figure 270. Poll Results

To create a poll:

1. In the Admin Panel, select **CMS > Polls** to open the Poll Manager page, which shows a list of existing polls.

2. Click the **Add New Poll** button in the top right corner of the page to display the New Poll page, as shown in Figure 271.

Figure 271. New Poll Page

3. In the **Poll Question** field, enter the question that your customer will be asked.

4. In the **Status** field, specify whether the poll is **Open** or **Closed**. The status of the poll is **Open** by default, which means that it appears in your store. If you do not want it to appear in your store, select the **Closed** option.

5. Select one or more stores that you want the poll to appear in.

6. Click the **Poll Answers** option in the left panel to display Assigned Answers page.

7. Click the **Add New Answer** button to add possible answers to your question that can be selected by customers, as shown in Figure 272.

Figure 272. Assigned Answers Page

8. In the **Answer Title** field, specify the text of the answer to appear in your store for customers to select.

9. To influence the poll results in advance, you can add votes to the count in the **Votes Count** field, which is 0 by default.

10. Repeat steps 7 through 9 for each answer that you want to appear in this poll.

11. Click the **Save Poll** button.

Customers can answer a poll only once and you can view the results in the backend by clicking on the row for the poll in the Poll Manager page. If you have multiple polls open, they will cycle randomly in the frontend, meaning customer may see a different poll every time they refresh a frontend page.

Editing a Poll

After a poll has been created, you can edit it by clicking on the roll for the poll in the Poll Manager page (**CMS >** Polls).selecting the **Poll Manager** option from the **CMS** menu.

To close the poll so that it no longer appears in the store, change the **Status** field to **Closed** in the **Poll information** section.

To see the votes that have been tallied for each answer, click the **Poll Answers** option in the left panel to display the number of votes in the **Votes Count** field, as shown in Figure 273.

Figure 273. Poll Results (Backend)

33 Inventory Control: Quantity Increments and "Only X Left"

All editions of Magento have robust inventory control capabilities that enable you to set and manage inventory levels and thresholds and auto-decrement inventory as it's sold from the website. In addition, Magento Enterprise Edition has additional capabilities that provide you with even more control.

One of the advanced inventory control features is the ability to set the allowed quantity increments when customers add an item to their carts. This is especially relevant for B2C sites that sell items in multi-packs or B2B sites that sell in cases or cartons.

Another advanced inventory feature is the ability to display a message on the frontend when an item is nearly out of stock with an "Only 5 left" type message. This helps add urgency and improve conversion, which can be especially helpful for moving those last few items in your inventory.

In addition Magento Enterprise Edition provides support for setting order minimums on a customer-group basis, but this can only be set globally for that customer group at this time.

These features were introduced in Version 1.8 of Magento Enterprise

33.1 Enabling and Configuring Advanced Inventory Control Options

To enable and configure additional inventory control options:

In order to take advantage of these new inventory control features, you first need to enable them in the Admin Panel. In addition, you have the option of setting some of the default values for your entire store, if that makes sense for your merchandise. If not, you can set specific thresholds and increments on a product-by-product basis.

1. Choose **System > Configuration**. Select the **Inventory** tab on the left.

2. To enable the "Only X left" feature for a website, in the **Stock Options** panel set the **Only X left Threshold** value to your desired threshold. If the value is 0, the feature will not be enabled. This value can be set differently for each Magento website in your installation but it cannot be set on a per-product basis. Whatever you set here will apply to the entire website you have selected in the Configuration Scope selector.

3. To globally enable the Quantity Increments feature, in the **Product Stock Options** panel set **Enable Qty Increments** to Yes. Enter the desired default increment in the **Qty Increments** field that appears when you change this field to Yes. You can override these values for each product, if desired.

4. To globally enable the minimum purchase quantities for specific customer groups, in the **Product Stock Options** panel click the **[+Add Minimum Qty]** button. Select the customer group from the drop-down menu and enter the quantity minimum desired. This is a global setting and cannot be overridden on a per-product basis.

5. Click the **[✔Save Config]** button to save your settings.

To set quantity increments on a per-product basis:

1. Choose **Catalog > Manage Products**.

2. Select a product to edit and then select the **Inventory** tab on the left.

3. In the **Inventory** panel, enable the Quantity Increments feature for this product by setting **Enable Qty Increments** to Yes. Enter the desired increment in the **Qty Increments** field that appears when you change this field to **Yes**.

4. Click the [✔Save] button to save your settings.

34 Monitoring and Improving the Web Store

This chapter describes how to monitor and improve your web store by using reports, search terms, synonyms, redirects, and Google Analytics.

34.1 Reports

This section describes some of the most important reports in Magento. This section first provides a full description of how to generate a Sales Report and a brief description of other important reports.

Generating Reports

Magento provides a variety of reports that you can access at any time. To see the reports that you can generate in Magento, from the **Reports** menu, select a type of report and then select a specific report of that type.

Some report pages have filter controls that enable you to narrow the scope of the report, as shown in Figure 274.

Figure 274. Report Filter Controls

❖ The **Show Report For** drop-down menu enables you to select the store view or website (or all websites) to report on.

❖ The **Match Period To** drop-down menu enables you to select which records to report on, based on either the order creation date or the order modified date.

❖ The **Period** drop-down menu enables you to aggregate the report data into rows for each day, month, or year within your report **From** and **To** dates.

❖ Use the **From** and **To** calendar controls to determine the start and end dates that will be covered by the report.

❖ For **Order Status**, select **Any** to include all orders, or select **Specified** to select one or more order status values from a list.

❖ The **Empty Rows** drop-down menu enables you to select whether to include date period rows that have no data.

❖ The **Show Actual Values** drop-down menu enables you to select whether to display actual (**Yes**) or projected (**No**) values. Projected values are based on estimates of amounts to be paid.

When you are finished making filter selections, click **Show Report** (or **Refresh**, in some reports) to generate the report. To export the report information shown on the screen, select the **CSV** (Comma Separated Values) option or the **Excel XML** option from the **Export to** drop-down menu, and click **Export**.

Refreshing Sales Report Statistics

To reduce the performance impact of generating sales reports (those that are available under **Reports > Sales**), Magento calculates and stores the required statistics for each report. When you generate a report, the report uses the stored statistics, rather than recalculating the statistics each time you generate a report.

The sales report statistics need to be refreshed in order for the reports to use the most recent data. Refreshing the sales report statistics is a manual process.

To refresh the Sales Report statistics:

1. In the Admin Panel, select **Reports > Refresh Statistics** to open the Refresh Statistics page, as shown in Figure 275.

Figure 275. Refresh Statistics Page

2. Use the check boxes on the left to select the reports for which you want to have the statistics refreshed.

3. In the **Actions** drop-down menu, select the scope of the statistics to be refreshed: **Refresh Lifetime Statistics** or **Refresh Statistics for the Last Day**.

4. Click **Submit**.

Available Reports

The following describes the reports that are available in Magento.

Report	Path	Description
Total Ordered	**Reports > Sales > Orders**	Shows orders for the specified time period.
Order Taxes	**Reports > Sales > Tax**	Shows taxes charged for orders in the specified time period; grouped by tax rate.

Report	Path	Description
Total Invoiced vs. Paid	**Reports > Sales > Invoiced**	Shows amounts paid and unpaid for invoiced orders in the specified time period.
Total Shipped	**Reports > Sales > Shipping**	Shows orders shipped in the specified time period, grouped by carrier/method; includes shipping charge amounts.
Total Refunded	**Reports > Sales > Refunds**	Shows refunds applied to orders in the specified time period.
Coupons Usage	**Reports > Sales > Coupons**	Shows coupons used for orders in the specified time period, grouped by coupon code.
PayPal Settlement	**Reports > Sales > PayPal Settlement Reports**	Shows PayPal settlements for the specified time period. Click **Fetch Updates** to retrieve data from PayPal.
Products in Carts	**Reports > Shopping Cart > Products in carts**	Shows products that are currently in shopping carts.
Abandoned Carts	**Reports > Shopping Cart > Abandoned Carts**	Shows shopping carts that were started but then abandoned. **Tip:** This report enables you to contact the customers and offer them discounts or otherwise turn an abandoned cart into a conversion.
Products Bestsellers	**Reports > Products > Bestsellers**	Shows the products that were sold in the highest quantity in the specified time period.
Products Ordered	**Reports > Products > Products Ordered**	Shows all products that were ordered in the specified time period.
Most Viewed	**Reports > Products > Most Viewed**	Shows the products that were viewed the most times in the specified time period.
Low Stock	**Reports > Products > Low Stock**	Shows the products whose stock levels are low.
Downloads	**Reports > Products > Downloads**	Shows the number of purchases and downloads for each downloadable product.
New Accounts	**Reports > Customers > New Accounts**	Shows the new accounts that were created during the specified time period.
Customers by Orders Total	**Reports > Customers > Customers by orders total**	Shows the customers listed in descending order of total order amount.
Customers by Number of Orders	**Reports > Customers > Customers by number of orders**	Shows the customers listed in descending order of number of orders placed.
Customers Reviews	**Reports > Reviews > Customers Reviews**	Shows the customers listed in descending order of number of reviews contributed.
Products Reviews	**Reports > Reviews > Products Reviews**	Shows the products listed in descending order of number of reviews.
Customers Tags	**Reports > Tags > Customers**	Shows the customers listed with the number of tags each one has created.
Products Tags	**Reports > Tags > Products**	Shows the number of unique tags and total number of tags created for each product.
Popular Tags	**Reports > Tags > Popular**	Shows the number of times each tag has been applied.
Search Terms	**Reports > Search Terms**	Shows the terms that were submitted in the search tool. **Tip:** If you see that the **Hits** field of a

Report	Path	Description
		product shows a high number (meaning that customers search for it often), but the **Results** column shows a low number or zero, then you should review your product names and descriptions to promote products related to this keyword.

34.2   Search Synonyms and Redirects

The following shows you how to fine-tune Magento's search behavior. Two mains options are provided:

❖ **Search Synonyms**: Misspelled search terms may mean missed opportunities for you. If you know that a frequently used search term is often misspelled by customers, and thus does not display results, you can add additional search terms.

❖ **Redirects**: You can specify that when a customer searches for a certain term that they are redirected to a specific page. Direct customers to a specific product page, a specific brand landing page, or an informational page. For example, the search term "Returns" can take customers directly to the Shipping Policy page.

The following example demonstrates how to add the misspelled search term "latop" so that the results are returned for the correct term, "laptop."

To add new search synonym and or redirection:

1. In the Admin Panel, select **Catalog > Search Terms** to display the Search page, as shown in Figure 276.

Figure 276. Search Page

2. Click the **Add New Search Term** button to display the New Search page, as shown in Figure 277.

Figure 277. New Search Page

3. In the **Search Query** field, specify the incorrect spelling of the term ("latop" in this example).

4. In the **Synonym For** field, specify the correct search term that is defined in your web store ("laptop" in this example).

5. In the **Redirect URL** field, specify the URL to which the customer is redirected when no results are returned for the search term.

6. Click the **Save Search** button.

34.3   Google Analytics

Google Analytics is a free service provided by Google to help website owners find out more about the traffic on their website and about conversions. Magento supports both the following Google Analytics options:

❖ **Page View Tracking:** Enables you to see the origin from which your web store visitors linked to your store.

❖ **E-commerce Tracking**: Enables you to see which customers make purchases and what they buy.

You can sign up to this service at https://www.google.com/analytics. While signing up, a report is displayed showing your new Google Analytics account number in the following format: UA-XXXXXXX-1. Write this number down, because it is required for configuring Google Analytics in Magento.

To add Google Analytics tracking to Magento:

1. In the Admin Panel, select **System > Configuration > Google API.**

2. Expand the Google Analytics section as shown in Figure 278.

Figure 278. Google Analytics Options

3. In the **Enable** field, select **Yes**.

4. In the **Account number** field, specify the Google Analytics account number that you wrote down when you signed up for the service.

> *Tip:* *Magento supports native integration with Google Website Optimizer, which is another free service from Google that enables you to test different versions of page elements and to select the elements that provide the best conversion rates.*

35 Keeping Your Store Healthy

Now that you have your own web store running and are selling products, do not forget to keep it in good condition. Make sure that your hosting provider performs regular file and database backups

This chapter describes what you can do to keep your store healthy by using backups and rollbacks, using a staging environment, updating Magento, and extending Magento.

35.1   Backups and Rollbacks

Magento enables you to perform different types of backups (backup of database, file system, or both) and to perform rollbacks automatically.

Backup and Rollback Quick Reference

The main tasks related to creating backups and restoring the system are performed in the Magento Admin Panel under **System** > **Tools** > **Backups**.

Files are compressed using the .gz and .tgz formats. Backup files are stored in the `var/backups` directory in your Magento file system. The content of the `/var/cache`, `/var/log`, `/var/session` and `/var/report` folders is excluded from the backup.

Creating and Managing Backups

To create a backup:

1. Log in to the Magento Admin Panel.

2. Navigate to **System** > **Tools** > **Backups**.

3. Click one of the following buttons, depending on the backup type you need to create:

   - **System Backup:** Creates a complete backup of the database and the file system. On the next step you will have the possibility to choose whether to include the media folder to the backup.

   - **Database and Media Backup**: Creates a backup of the database and the media folder.

   - **Database Backup**: Creates a backup of the database.

4. The confirmation dialog box appears. If you agree to put the store into the maintenance mode for the time of backup creation, select the corresponding check box. After the backup creation is completed, the maintenance mode is turned off automatically. If you are creating a system backup, select the **Include Media folder to System Backup** check box if you want to include the `media` folder. Confirm the backup creation.

Database backup files are compressed using the .gz format. For the system backups and database and media backups, the .tgz format is used. Backup files are stored in the `var/backups` directory in your Magento file system. The files that are stored in the `/var/cache`, `/var/log`, `/var/session` and `/var/report` folders are excluded from the backup.

Records about all created backups are listed in a grid on the Backups page. Deleting a record deletes the archive file as well.

Rolling Back the System

To roll back the whole system or the database:

1. In the Magento Admin Panel, navigate to **System** > **Tools** > **Backups.**

2. The Backups page opens, where all previously created backups are listed in a grid. For the desired backup, click the **Rollback** link in the Action column. Note that all changes made since the backup creation will be lost after the rollback.

3. Confirm rolling back, specify your Magento Admin Panel account password, and choose whether you want to put your store into the maintenance mode for the time of rolling back. When restoring file system or database and media files you can choose to use the FTP connection.

4. After the rollback, you are redirected to the login page to log in to the Admin Panel.

5. Refresh cache types and rebuild required indexes. This can be done under **System** > **Cache Management** and **System** > **Index Management**, respectively.

   Important note: *Use the Rollback functionality with caution. Customers who are in the process of checking out when you start the rollback may not be able to complete the checkout.*

Limiting Access to the Backup and Rollback Functionality for Administrator Users

Access to the Backups and Rollback functionality management can be restricted by configuring user permissions for Backups and Rollback resources of the Admin Panel for an admin role.

Role permissions are configured under **System** > **Permissions** > **Roles** > *%desired role%*. See Figure 279 for illustration of a role permission tree on the Role Information page.
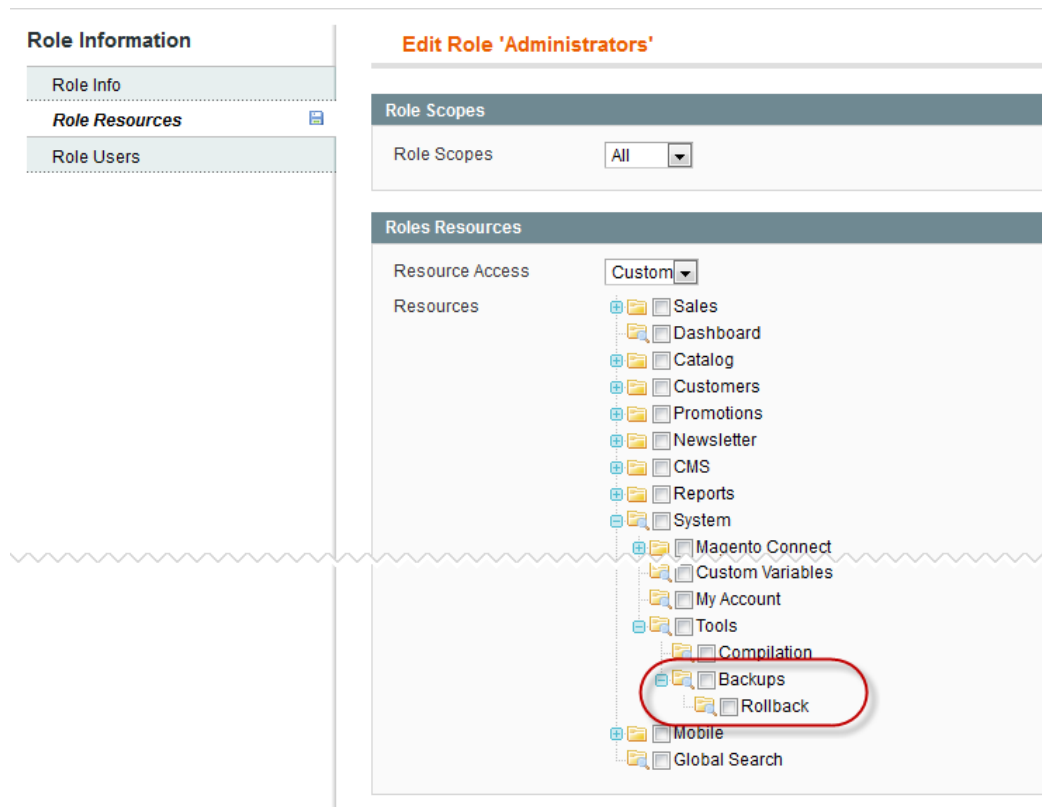
Figure 279. Defining Access Permissions to the Backup and Rollback Functionality
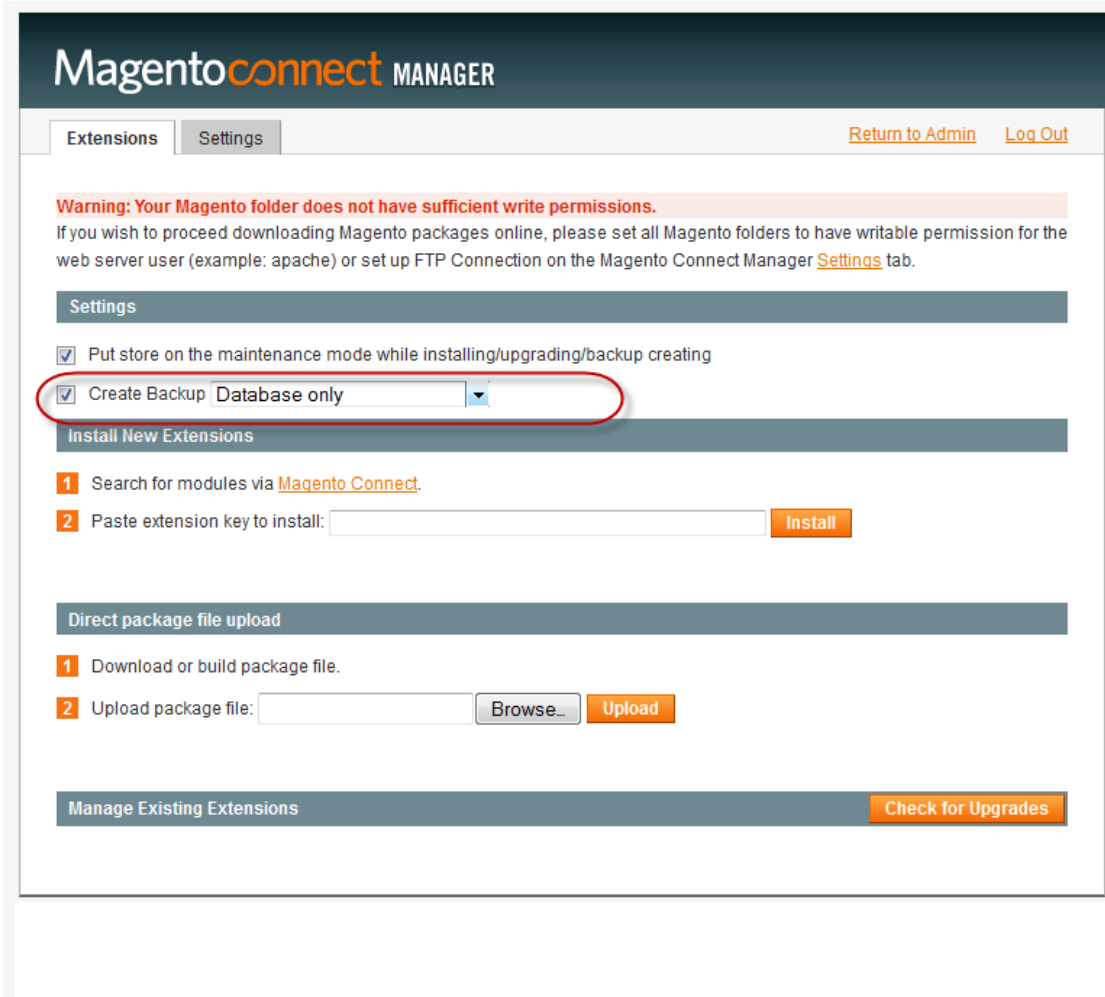
To restrict access to the Backup and/or Rollback resources, leave the corresponding check box cleared. If you need to grant access to the Rollback resources, you must grant access to Backup resources as well.

Creating a Backup from the Magento Connect Manager (MCM)

In the Magento Connect Manager (MCM), you can choose to create a backup before installing an extension or upgrading Magento.

To create a backup before installing an extension from MCM:

1. Navigate to **System** > **Magento Connect** > **Magento Connect Manager.**

2. Select the **Create Backup** check box and select the backup type. See Figure 280.

3. Proceed with installing extension or updating Magento. The backup will be created automatically, and will be listed in the grid under **System** > **Tools** > **Backups** in the Magento Admin Panel.

Figure 280. Selecting to Create a Backup in Magento Connect Manager

35.2   Staging Environment

If you plan to change and develop your web store over time, we recommend that you set up a staging environment (also called a testing environment) in which you can test your ideas before applying them to the live store. We highly recommend that you also use this environment when updating new versions of Magento.

At its simplest, the staging environment is just like any other Magento installation that is not accessible to the public. If you are modifying the files, you can keep them synchronized with the live files using any of the various available version control tools.

35.3   Extending Magento

There are hundreds of payment gateways and shipping providers all over the world. Magento out-of-the-box supports a few of the most popular ones. However, community members are developing and publishing new extensions in order to extend Magento with various new features. If you need to add functionality to Magento, you should first search for it on Magento Connect, which is our marketplace for extensions. You can access Magento Connect at: http://www.magentocommerce.com/magento-connect. The Magento Connect home page is displayed, as shown in Figure 281.

Figure 281. Magento Connect Home Page

Various free extensions are provided from this page.

The following example shows how to install the iDEAL core payment extension that adds a new payment method to the store called iDEAL.

To install a free extension:

1. Go to the **MagentoConnect** page on the **MagentoCommerce** site at
   http://www.magentocommerce.com/.

2. Browse through the extensions using the filters provided in the panel on the right.

3. Go into the details page of the desired extension to display a page similar to Figure 282.
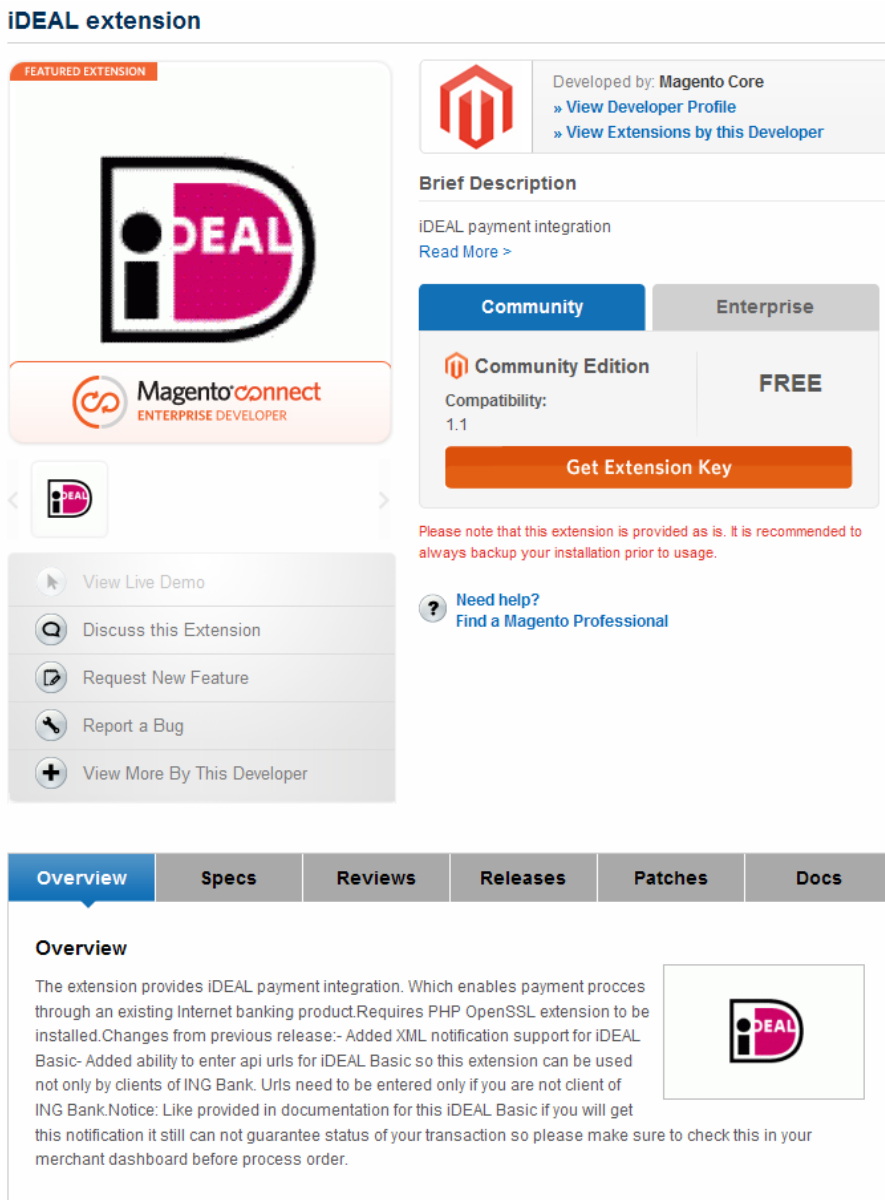
Figure 282. Extension Details Page

4. Click **Get Extension Key** to display the following:
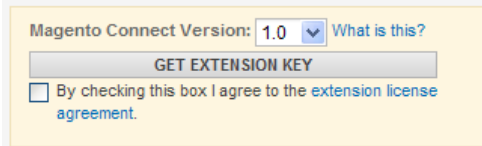
5. Click the link to read the license agreement, then accept the licensing agreement by selecting the agreement check box.

6. An extension key similar to the following is displayed: **magento-core/Mage_Ideal.**
   This is a special link to an extension that Magento recognizes. Click **Select** to select it and then copy it to the clipboard (**Ctrl+C**).

7. In the Admin Panel, select **System > Magento Connect > Magento Connect Manager**.

8. Log in using your backend username and password and click **Log In**.

9. Paste the extension key in the **Install New Extensions** section, as shown in Figure 283.
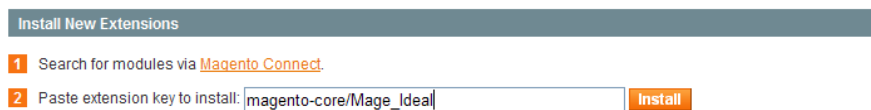
Figure 283. Pasting the Extension Key

10. Click the **Install** button and wait until the installation has finished.

You can now return to the backend and start using the extension that you have just installed!

> **Note:** *After you install a payment module, this new option appears in the **System** menu under **Configuration > SALES > Payment Methods**.*

36 Controlling Website Access

This chapter introduces Magento Enterprise Edition's functionality for restricting access to your websites—both on the backend and the frontend.

For your administrator users, Enterprise Edition enables you to control what they can see in the Admin Panel. You can restrict which features and functions are available to an admin user as well as which websites' or stores' products and data they can see.

For your customers, Enterprise Edition also enables you to easily control whether your frontend website is temporarily closed (for example, for maintenance) or whether your website is open to all visitors or to only logged in customers or customers in specific customer groups (for example, for private sales or B2B websites).

36.1 Limiting Administrator Access to the Admin Panel (Backend)

As with all versions of Magento, you can create individual accounts for each user to whom you want to allow access to the backend Admin Panel. You can even create roles that define which Admin Panel functionality those administrator users will have access to. Additionally, Magento Enterprise Edition enables you to further restrict that admin access to only a specific site or set of sites and their associated data. If you have multiple brands or business units with separate stores all on the same Magento installation, this feature enables you to provide admin access to each of your business units but to still hide and protect their data from one another.

To limit which websites or stores administrator users can see when they log in to the Admin Panel, you create a role with a limited scope and resources. After you have created a restricted role, you can assign that role to a specific admin user account. Administrator users assigned to a restricted role will be able to see and change data only for websites or stores associated with that role. They will also be unable to change global settings or data.

If an admin user's access is restricted to a specific set of websites and/or stores, the websites and stores for which they are not authorized will not be shown in the scope drop-downs or they will be displayed as inactive. Only the sales and other data for allowed websites and stores will be shown.

To limit admin role access to specific websites or stores:

1. Choose **System > Permissions > Roles**.

2. Click on the **[+Add New Role]** button to create a new role.

3. In the **Role Info** tab, specify the following information:

❖ **Role Name** (required) - Give the role a descriptive name to help you remember its scope and purpose.

4. Select the **Role Resources** tab in the left column.

❖ In the **Role Scopes** panel, set the following values:

o Select **Custom** from the **Role Scopes** drop-down menu.

o In the resulting list, select the websites and/or stores that you want users with that role to have access to.

❖ In the **Role Resources** panel, set the following values:

o Select **Custom** from the **Resource Access** drop-down menu.

o In the resulting list, select the menus and features that you want users with that role to have access to.

> *Important Note: Be sure to disable access to at least the Permissions tool here in the Role Resources section if you are limiting website/store access for a given role. Otherwise, users with this role will be able to modify their own restrictions.*

o If desired, select the **Role Users** tab and assign existing Admin user accounts to this new role.

5. Click the [✔**Save Role**] button to save your new role.

After creating a restricted role, you can create new administrator users at any time (**System > Permissions > Users**) and assign your new restricted role to the administrator users whose access you want to limit.

36.2 Limiting Visitor/Customer Access to the Website (Frontend)

Another Enterprise Edition concept, called website restrictions, provides you with the ability to either shut down access to your site completely (for example, if it's closed for maintenance) or to restrict access to only logged-in customers (for example, for B2B websites or for private sales).

Restricting Customer Access from an Entire Website

If you wish to temporarily close your website, you can do so easily in Enterprise Edition by setting the website restrictions to "website closed." This will temporarily redirect site visitors to any URL under Magento control to a single landing page of your choice.

To restrict access to an entire website:

1. Choose **System > Configuration**. Select the **General** tab on the left.

2. In the **Website Restrictions** panel, you can set the following values:

❖ **Access Restriction** - Determines whether the website restriction features are enabled. If **Yes**, frontend website access is restricted in the manner set in the fields below. If **No**, this feature in disabled and the following settings have no effect.

❖ **Restriction Mode** - There are three possible modes.

  o **Website Closed** - All access to the frontend website is restricted and the website is essentially "closed." All frontend URLs are temporarily redirected to the page specified as the **Landing Page** below. This setting can be useful during site maintenance or just prior to launch.

  o **Private Sales: Login Only -** Users can only access the frontend website if they first log in. All frontend URLs are temporarily redirected to either the specified landing page or to the login form until the user logs in. Users cannot create a new account themselves when the site is in this mode.

  o **Private Sales: Login and Register -** Users can only access the frontend website if they first log in. All frontend URLs are temporarily redirected to the login form until the user logs in. Users can create a new account themselves when the site is in this mode.

❖ **Startup Page** - Determines whether the site displays the login form or a landing page until a user logs in. This setting is only applicable in Private Sales mode (if the previous setting is either **Private Sales: Login Only** or **Private Sales: Login and Register**), because the Website Closed option prohibits users from logging in altogether.

  o **To login form -** Users are redirected to the log in form until they log in.

  o **To landing page -** Users are redirected to the static page specified below until they log in.

Important note: *Be sure to include a link to the login page from the specified landing page so that customers can log in to access the full site.*

❖ **Landing Page -** Specifies the landing page users see either when the website is closed or when you have chosen to start up from a landing page in Private Sales mode.

❖ **HTTP response** - Specify the HTTP response sent out when your website is closed and a connection is attempted by bots, crawlers, or spiders.

  o **503 Service unavailable** means that the page is not available, and the index will not be updated.

  o **200 OK** means the landing page returned is the correct page, and the spider might assume the landing page is the only page on the site.

3. Click the [✔Save Config] button to save your settings.

> **Note**: *The Private Sales website restriction settings can be also used for B2B websites. Customers can be created in the backend and required to log in in order to view the site.*

Restricting Customer Access on a Category-by-Category Basis

In order allow specific customer groups to see only certain categories of your website, you first need to enable this ability in the Admin Panel. You can set default values that apply to all categories in your entire store. You can also override these settings for individual categories.

To configure default access permissions and landing pages

1. Choose **System > Configuration**. Select the **Catalog** tab on the left.

2. In the **Category Permissions** panel, you can set the following values:

   ❖ **Enable** - Determines whether or not category access can be restricted.

     o **Yes** - Frontend website access is restricted in the manner set in the fields below. A new tab (**Category Permissions**) will appear at the category level in **Catalog > Manage Categories** so that you can override these settings on a category-by-category basis.
     o **No** - This feature in disabled and the following settings have no effect.

   ❖ **Allow Browsing Category** - Determines whether category pages are visible and to which customers.

     o **Yes, to all** – Gives this permission to all customer groups.
     o **Yes, to specified customer groups** - Gives this permission to certain customer groups only.
     o **Customer Groups** – This multiple select menu will appear, listing all existing customer groups, from which you can select the group or groups to give this permission.
     o **No, redirect to landing page -** Denies this permission to all customer groups.
     o **Landing Page** - Select the landing page that customers will be directed to if they do not have permission to browse categories. Customers will be redirected if you have selected either **Yes, to specified customer groups** or **No, redirect to landing page** above. They will also be redirected if you deny access to a customer group on the category level, which will be discussed further in the next section. This drop-down menu lists all landing pages that have been created in **CMS** > **Manage Pages**.

   ❖ **Display Product Prices** - Determines whether product prices are displayed on the product listing pages and product info pages.

     o **Yes, to all** - Gives this permission to all customer groups. Select **Yes, to specified customer groups** in order to give this permission only to certain customer groups.
     o If this option is selected, a **Customer Groups** multiple select menu will appear, listing all existing customer groups, from which you can select the group or groups to give this permission. Select **No** in order to deny this permission to all customer groups.

❖ **Allow Adding to Cart** - Determines whether customers are able to add products to their carts from the product listing pages and product info pages.

  o Select **Yes, to all** in order to give this permission to all customer groups.

  o Select **Yes, to specified customer groups** in order to give this permission only to certain customer groups. If this option is selected, a **Customer Groups** multiple select menu will appear, listing all existing customer groups, from which you can select the group or groups to give this permission.

  o Select **No** in order to deny this permission to all customer groups.

❖ **Disallow Catalog Search by** - Select the customer group or groups from this multiple select menu that will not be allowed to use the Quick Search bar in the header or the Advanced Search tool to search for products in your site.

3. Click the [✔Save Config] button to save your settings.

To apply category permissions:

The default category permissions that you set above can be overridden on the category level. To do so, navigate to **Catalog** > **Manage Categories**, select the desired category from the category tree in the left column, and select the **Category Permissions** tab. This tab will exist only if you have enabled this feature in the configuration settings described above.

Here you have the ability to set permissions for each website and each customer group. First, click the **New Permission** button. Select the desired website and customer group from the corresponding drop-downs. If you want to apply this permission for all websites and/or customer groups, select **All Websites** or **All Customer Groups**, respectively.

For each type of permission (browsing, product prices, and add to cart) you have the ability to **Allow** or **Deny** permission. Additionally, you can choose to use the permission of the parent category, **Use parent**. This setting is helpful if you have a child category or set of children categories which will always follow the permission settings of the parent. This way, you can change the permission settings of the parent category and have the changes automatically apply to the child or children categories.

Each permission (browsing, product prices, and add to cart) will apply to the product listing (category) page of the selected category, as well as the product view (product) page of products associated to the selected category. However, if a product is associated to another category, which has no viewing or selling restrictions, then none of the permissions will apply to the product view page.

To remove a permission, click the red **X** button.

When you have completed these settings, click the **Save Category** button in the top right of the page.

36.3   CAPTCHA

CAPTCHA functionality is used to ensure that a human being, rather than another computer, is interacting with the site. It can be used in the backend and frontend. CAPTCHA in Magento is visual and is fully configurable.

The CAPTCHA was implemented using a module from Zend Framework.

CAPTCHA: Quick Reference

The following table lists the main tasks related to the CAPTCHA functionality, and the places where they are performed in the Magento Admin Panel.

Task	Admin Panel Menu	Scope
Enable and configure the CAPTCHA for the backend	**System** > **Configuration** > ADVANCED >**Admin** > **CAPTCHA**	Global
Enable and configure the CAPTCHA for the frontend	**System** > **Configuration** > CUSTOMERS >**Customer Configuration** > **CAPTCHA**	Website

Enabling and Configuring CAPTCHA for the Backend

To enable and configure CAPTCHA for the backend:

1. Log in to the Magento Admin Panel.

2. Navigate to **System** > **Configuration** > ADVANCED >**Admin** > **CAPTCHA.** Make sure that the **Current Configuration Scope** is set to **Default.**

3. Configure the following settings:

   ❖ **Enable CAPTCHA in Admin:** Enables CAPTCHA for the login pages of the Admin Panel.

   ❖ **Font:** Defines the font used for CAPTCHA displaying. To add your own font, put the font file in the same directory as your Magento instance and specify it in the `config.xml` file that is stored in the `app/code/core/Mage/Captcha/etc/` folder.

   ❖ **Forms:** Defines the form, on which CAPTCHA is displayed. Available options: **Admin Login** and **Admin Forgot Password**.

   ❖ **Displaying Mode:** Defines preconditions for displaying CAPTCHA. Available options: **Always** or **After number of attempts to login**. If the latter is selected, the **Number of Unsuccessful Attempts to Login** text field is displayed. Setting **Number of Unsuccessful Attempts to Login** to 0 (zero) is similar to setting **Displaying Mode** to **Always.** The **After number of attempts to login** option does not cover the Forgot Password form. If the CAPTCHA functionality is enabled and set to be displayed on this form, then it is always displayed on the form.

Note: *To track the number of unsuccessful login attempts, the attempts to log in under one email address from one IP address are counted. The maximum allowed number of attempts to log in from one IP address is 1,000. This limitation is applied only when the CAPTCHA functionality is enabled.*

❖ **CAPTCHA Timeout (minutes):** Defines how long the displayed CAPTCHA is valid. After the timeout the user needs to reload the page.

❖ **Number of Symbols:** Defines the number of symbols that are used for creating CAPTCHA. Maximum allowed value is 8. You can also specify a range, for example, `5-8;` each generated CAPTCHA can contain different number of symbols.

❖ **Symbols Used in CAPTCHA:** Defines what symbols are used in CAPTCHA. Only letters (a-z and A-Z) and numbers (0-9) are allowed. The default set of symbols suggested in the field excludes similar looking symbols like "i", "l", "1". Displaying these symbols in CAPTCHA decreases the chances that a user will recognize CAPTCHA correctly.

❖ **Case Sensitive:** Defines whether letters in CAPTCHA are case sensitive.

4. To save the settings click **Save Config**.

Enabling and Configuring CAPTCHA for the Frontend

To enable and configure CAPTCHA displaying in the frontend:

1. Log in to the Magento Admin Panel.

2. Navigate to **System** > **Configuration** > CUSTOMERS > **Customer Configuration**.

3. In the **Current Configuration Scope** drop-down field select the desired website.

4. Expand the **CAPTCHA** field set. Configure the following settings:

- **Enable CAPTCHA on Frontend:** Enables the CAPTCHA for the website frontend;

- **Font:** Defines the font used for CAPTCHA displaying. To add your own font, put the font file in the same directory as your Magento instance and specify it in the *config.xml* stored in the *app/code/core/Mage/Captcha/etc/* folder.

- **Forms:** Defines the forms where CAPTCHA is used. The following options are available: **Create User, Login**, **Forgot Password**, **Checkout as Guest**, and **Register during Checkout**.

- **Displaying Mode:** Defines preconditions for displaying CAPTCHA. Available options: **Always** or **After number of attempts to login**. If the latter is selected, the **Number of Unsuccessful Attempts to Login** text field is displayed. Setting **Number of Unsuccessful Attempts to Login** to 0 (zero) is similar to setting **Displaying Mode** to **Always.** The **After number of attempts to login** option does not cover the Forgot Password and Create User forms. If the CAPTCHA functionality is enabled and these forms are selected in the **Forms** field, the CAPTCHA is always displayed on these forms.

- **CAPTCHA Timeout (minutes):** Defines for how long the displayed CAPTCHA is valid. After the timeout a user needs to reload the page.

- **Number of Symbols:** Defines the number of symbols that are used for creating CAPTCHA. Maximum allowed value is 8. You can also specify a range, for example, `5-8.`

- **Symbols Used in CAPTCHA:** Defines what symbols are used in CAPTCHA. Only letters (a-z and A-Z) and numbers (0-9) are allowed. The default set of symbols suggested in the field excludes similar looking symbols like "i", "l", "1". Displaying these symbols in CAPTCHA decreases the chances that a user will recognize CAPTCHA correctly.

- **Case Sensitive:** Defines whether letters in CAPTCHA are case sensitive.

5. To save the settings click **Save Config**.

CAPTCHA: User Experience

The CAPTCHA in Magento is visual. Figure 284 and Figure 285 illustrate the way CAPTCHA is displayed in the frontend and the backend.

Figure 284. CAPTCHA in the Frontend

Users can reload the displayed CAPTCHA by clicking the **Reload** icon in the upper right corner of the image. The number of reloads is not limited.
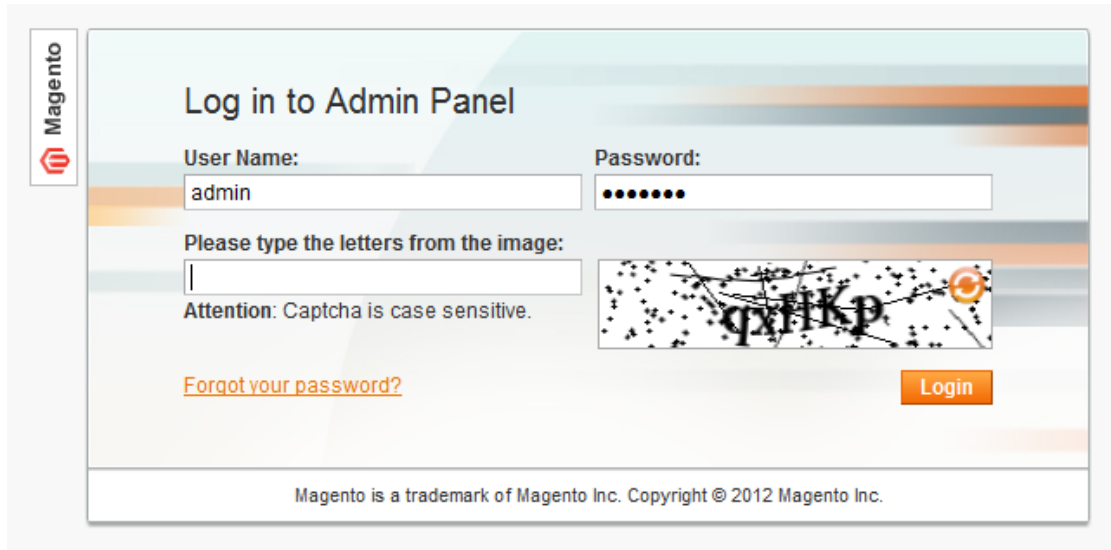
Figure 285. CAPTCHA in the Backend

Administrator users can reload the displayed CAPTCHA by clicking the **Reload** icon in the upper right corner of the image. The number of reloads is not limited.

37 Read and Edit Permissions for Prices and Promotions

This chapter describes a feature that enables you to control administrator user access to the Product Managing and Promotions resources of the Magento Admin Panel.

This feature was introduced in Version 1.11 of and Magento Enterprise Edition.

37.1   Read and Edit Permissions – a Quick View

In the Magento Admin Panel, the access roles are configured under **System > Permissions > Roles**.

This functionality concerns access rights for the products management and promotions management resources.

Permissions for Promotions Resources – a Quick View

The general logic for Promotions permissions is the following:

❖ When only Read permission is granted for a certain resources (such as catalog price rules and shopping cart rules), the backend user can only view the existing rules. No fields are available for editing, and all management buttons are hidden. To grant Read permission only, select the resource check box, and clear the Edit check box. See Figure 286.
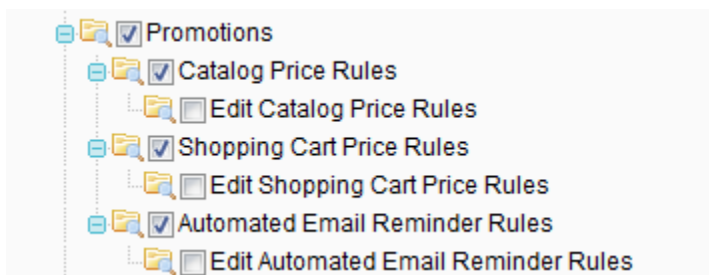
Figure 286. Only Read Access Rights Are Granted for All Rules-type Resources of the Promotions Section

❖ When **Edit** permission is granted for a given resource, the backend user has the complete access to that resource.

Permissions for Product Management – a Quick View

The general logic for product management permissions is the following:

❖ When **Read** permission is granted for the product status, the backend user cannot change the value of the Status product attribute. When creating a new product, the Status field is unavailable for editing and is set to **Disabled**.

❖ When the **Edit** permission is given for the product status, the backend user can change the values of the Status product attribute.

❖ When the **Read** permission is given for the price, the backend user can view, but cannot edit, the product price-related fields. When creating a new product, the **Price** attribute (or Amount, in case of a gift card product) is unavailable for editing and set to the default value, and creating recurring profiles is unavailable. When adding custom options, or associated products for a configurable product, or links for downloadable products, the prices are unavailable for editing and are set to zero, the **Price Type** field is unavailable for editing and set to **Fixed**.

❖ When **Edit** permission is given for the product price, the backend user has full access to all price-related fields.

❖ When access to product management is granted, but neither **Read** nor **Edit** permissions for product price are specified, all price-related fields and columns are hidden, and management of recurring profiles is unavailable. The backend user can still create new products and add custom options, associated products, and links for downloadable products. In this case, the price fields and price columns in the grids are hidden and are set to the default or zero value. The price and total columns are hidden on the Manage Products page, the Category Products tab of the Category view, and the customer's shopping cart view in the Admin Panel.

The default product price is set under **System > Configuration > Catalog > Price > Default Product Price**.

37.2   Access Roles and Users

In the Magento Admin Panel, the access roles are configured under **System > Permissions > Roles**.

To open the access management section for a role, open the role for editing, click the **Role Resources** tab, and select **Custom** in the Resources Access drop-down menu. The resources tree appears where you can specify which sections of the Admin Panel are accessible for the role.

The new functionality concerns the access rights to the Manage Product and Promotions subsections.

37.3   Read and Edit Permissions for Product Management Resources

For the product management section, you can grant the following access rights:

❖ Read/Edit permission for the product status

❖ Read/Edit permission for the product price

❖ Access without options

Access rights option	How to assign	Restrictions
Read Product Status	☑ Manage Products ☐ Edit Product Status	The **Status** field of the products is unavailable for editing. When creating a product, the field is unavailable for editing and is set to **Disabled**. Performing mass **Status** change on the Products page is unavailable.
Edit Product Status	☑ Manage Products ☑ Edit Product Status	The **Status** field of the products is available for editing by the backend user.
Read Product Price	☑ Manage Products ☐ Edit Product Status ☑ Read Product Price ☐ Edit Product Price	• When editing existing products or performing mass change of attributes values, all fields on the **Prices** tab are displayed, but are unavailable for editing. • When creating a new product, the **Price** field on the **Prices** tab is unavailable for editing, and is set to the default value. All other price related fields on this tab (**Special Price**, **Special Price From/To Date**, **Tier Price**; if MAP is enabled, all MAP related settings) are not displayed. For gift card products, the **Amount** field on the **Prices** tab is unavailable for editing and is set equal to the default price value. All other amount-related fields (**Allow Open Amount**, **Open Amount Min Value**, **Open Amount Max Value**) are not displayed. • Management of recurring profiles is unavailable. When creating a new product, the **Enable Recurring Profile** attribute is set to **No** and is unavailable for editing. • When adding custom options, or associated products for configurable products, or links for downloadable products, the **Price** field is unavailable for editing and is set to zero, and the **Price Type** field is

Access rights option	How to assign	Restrictions
		unavailable for editing and is set to **Fixed**.
Edit Product Price		The admin user has the right to access and change all price-related fields and columns of the product management section.
Access without Read or Edit rights		All price related fields and columns are hidden. Specifically: • On the **Prices** tab, for both new and existing products, the **Price**, **Special Price**, **Tier Price**, **Cost** (if applied), **Special Price From Date**, **Special Price To Date** attributes, and all MAP-related settings are hidden. For new products the **Price** is set to the default value. The same logic applies to the **Amounts** and the **Allow Open Amount**, **Open Amount Min Value**, and **Open Amount Max Value** fields for the gift card products. • For both new and existing products, the **Enable Recurring Profile** field is displayed, but is unavailable for editing. For the existing products, all other fields related to the product profile are hidden. For new products the **Enable Recurring Profile** field is set to **No**. • On the **Related Products**, **Up-sells**, **Cross-sells** tabs of the product view, the Price column in the grids is not displayed. • On the **Custom Options** tab, **Associated Products** tab of the product view, the **Price** and **Price Type** columns in the grids are not displayed. When adding a new custom option or a new associated product for a configurable product, the **Price** and **Price Type** fields are hidden. For new entries, the **Price** is set to zero, and the **Price**

Access rights option	How to assign	Restrictions
		Type is set to **Fixed**.
		• On the **Downloadable Information** tab for downloadable products, the Price column is hidden. For the new rows the **Price** is set to zero.
		• On the Manage Products and Category Products pages (**Categories** > **Manage Categories** > **Category Products** tab), the Price columns in the grids are hidden.
		• In the customer's shopping cart views (accessible from the Customer's page), the Price, Total and Subtotal columns are hidden.

> *Note:* *In the shopping cart management section under* **Customers > Manage Customers > %your customer% > Manage Shopping Cart***, users with no Read or Edit permissions for product prices will still be able to see the option prices when configuring products.*

Configuring the Default Price

When a backend user with Read Product Price permissions creates a new product, the product price is set to the default value.

To set the default price:

1. Select **System > Configuration > Catalog**.

2. In the **Current Configuration Scope** drop-down menu in the upper left corner of the page, leave **Default Config**.

3. Set the default price in the **Default Product Price** field on the Price field set.

> *Note:* *If the default price is not set, it is considered equal to zero. As a result, a user with Edit access rights for product status and Read access rights for product prices can create products which will appear on the frontend with a price of zero.*
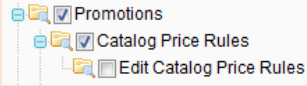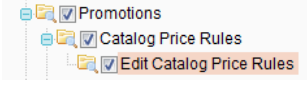
Read and Edit Permissions for Promotions Resources

For the promotions management resources, you can grant the following access rights:

❖ Read/Edit permissions for Catalog Price Rules

❖ Read/Edit permissions for Shopping Cart Price Rules

❖ Read/Edit permissions for Automated Email Reminder Rules

The following table describes how different access options for Catalog Price Rules resources are applied and assigned.

Access rights option	How to assign	Restrictions
Read Catalog Price Rules		The user can view the existing rules, but all fields are unavailable for editing and the management buttons are hidden. Specifically, on the Catalog Price Rules page, the **Apply Rule** and **Add New Rule** buttons are hidden; on the Edit Rule page, only the **Back** button is available.
Edit Catalog Price Rules		The user has the complete access to the subsection, including all fields and buttons.

Assigning and applying Read and Edit permissions for the Shopping Cart Price Rules and Automated Email Reminder Rules are similar in all respects to that for the Catalog Price Rules.

38 Advanced Security Features

This chapter introduces Magento Enterprise Edition encoding and security features, which match PCI standard requirements.

38.1 Encryption and Hashing

Magento Enterprise Edition hashes all data that does not require decryption by using a strong SHA-256 hashing algorithm instead of the previously used MD5. Legacy passwords will be hashed using the new algorithm whenever they are entered by customers, and all new passwords will be hashed using the SHA-256 algorithm.

Magento Enterprise Edition also encrypts all data that does require decryption by using an industry-standard AES-256 algorithm. This includes credit card data and integration (payment and shipping modules) passwords.

38.2 Changing the Database Key

Magento Enterprise Edition provides a tool to change the database key that is used for data encryption and decryption. This database key was generated when Magento was originally installed in your production environment. The key should be changed if the old key is ever compromised, as well as on a regular basis to improve security. When the key is changed, all legacy data is re-encoded using the new key.

To change the encoding key:

1. Navigate to **System > Manage Encryption Key**.

2. Select whether or not the new encryption key will generate automatically. If not, a **New Key** field will appear in which you can manually enter a new key.

3. Click the **Change Encryption Key** button in the top right of the page.

The encryption key will be changed and all previous data will be encoded with the new key. The new encryption key will be displayed for reference.

> **Note:** *Please make a note of the new key and keep it in a safe place. It will be required in order to decrypt data if any problems occur with your files.*

38.3 Logging Administrator Actions

Logging of administrator actions enables you to track of backend activities. For most events, the available information includes the action, the name of the user who performed it, whether it was a success or failure, and the ID of the object on which the action was performed. Additionally the IP and date are always logged.

To configure logging:

By default, all available modules are logged. To configure which modules are logged, navigate to **System** > **Configuration**, click the **Admin** tab in the left column, and select the **Events Logging** section. Locate the module you wish to edit and select **Yes** to enable it or **No** to disable it.

Additionally, you can control how long the log entries are stored and how often they are archived. To edit these settings, click on the **System** tab in the left column and select the **Event Log Archiving** section.

❖ **Save Log, days** - Determines how long the log entries are stored in the database before being removed. If there are many administrators working on the site, you can change this value from the default (60 days) to a lower value to avoid filling the capacity of the database.

❖ **Log Archiving Frequency** - Determines how often old events are saved to the archive. Possible values are Daily, Weekly or Monthly.

Note: *For log cleaning to work, the Magento cron job has to be set up. More information is available here:* *http://www.magentocommerce.com/wiki/how_to/ how_to_setup_a_cron_job*

Logs Report

To view the actual log of admin actions, navigate to **System > Admin Actions Log > Report.** This page is in a grid format, enabling you to sort and filter by values such as timestamp, IP address, user name, and module. If applicable, the **Item_id** column will display the ID of an affected item, such as customer ID, order ID, or product ID. The log report can be exported to CSV or XML using the **Export to** drop-down menu and **Export** button.

Logs Archive

To access the log archive files, navigate to **System** > **Admin Logging** > **Archive**. This page lists the CSV log files stored in *var/admin_logs*. By default, the file name will contain the current date in the format (iso) `yyyyMMddHH.csv`. File names are hyperlinked to download the appropriate file.

38.4   Setting Administrator Password Security Levels

There is a set of options controlling administrator password security. The following settings are available by navigating to **System** > **Configuration**, clicking the **Admin** tab in the left column, and selecting the **Security** section:

❖ **Maximum Login Failures to Lockout Account** - Determines the number of consecutive failed login attempts that will cause that account to become locked. If you do not want to enable the lockout feature, leave this field blank.

❖ **Lockout Time (minutes)** – Determines the duration, in minutes, for which the account will be locked after the failed logins.

❖ **Password Lifetime (days)** - Determines the duration, in days, until Magento will request an administrator to change their password. If you do not want to enable the password lifetime feature, leave this field blank.

❖ **Password Change** - Determines if the administrator is required to change their password after the password expires (option **Forced**), or if the password change is optional and a notification message is displayed (option **Recommended**).

*Note: During an account lockout, other administrators can unlock the account by navigating to **System** > **Permissions** > **Locked Users**.*

39 Advanced Design and Content Management

This chapter introduces some of Enterprise Edition's functionality to support working with your design and content. The biggest enhancement over our Community Edition functionality is the ability to create content staging websites that allow you to stage and preview content and design changes in your production environment without making those changes live. Some of primary uses of content staging include data entry, preparing seasonal layout and data changes, and building new CMS content.

Chapter Quick Reference

The table below lists some of the most common tasks using EE's design and content staging enhancements and where to go in the Admin Panel to perform them. The sections that follow provide step-by-step instructions on each.

TASK	ADMIN MENU
To configure content staging	System > Configuration > General tab
To create a staging website	System > Content Staging > Staging Websites
To merge content from a staging website to a live site	System > Content Staging > Staging Websites
To roll back a content merge	System > Content Staging > Backups
To change the favicon	System > Configuration > Design

39.1   Content Staging

In order to effectively use content staging, it is necessary to understand a little bit about how it works in Magento. Content staging websites are created as hidden or beta websites that can be accessed via a special, password-protected URL. They can have the same domain as the live store or on a separate domain, but they run on the same Magento installation and database as your live site.

In the Admin Panel, staging websites are accessed and used in the same way as normal websites. You create, edit, and delete content and products in exactly the same way. Setting the Configuration Scope as you work determines which site you're working on—a staging site or a live site.

When your changes are done and approved you can merge the staging website with the live website and do not have to re-enter data or configuration changes. During merging, all the content assigned to the staging website will become assigned to the live website, and all attributes on the staging website/store view level will be copied to the matching live website/store view. All mapping and content selection details can be controlled by the administrator, so only the content and content types you want will be merged. Additionally, during merging, a rollback (backup) can be created.

> **Note:** *It is important to keep in mind that these websites are <u>content</u> staging websites and are not staging websites for code or development work.*

Setting Up Content Staging Websites

To configure your content staging websites:

There are some configuration settings that must be completed relating to content staging.

1. Choose **System** > **Configuration**. Select the **General** tab on the left.

2. In the **Staging Websites** panel, configure your staging websites:

   ❖ **Automatically create Entry Points for Staging Websites** - Determines if the entry points (index files) for beta sites are created automatically. If you plan to host your Staging Websites on a separate domain, select No.

   ❖ **Folder Name for Entry Points** - Entry points, if created automatically, will be created as subdirectories in this path. This folder must be writeable.

   ❖ **Close Website during Merge or Rollback** – Determines if access will be restricted to the live site while the merge or rollback is being performed.

        o   If you select **No**, the site(s) can be accessed as usual.

        o   **Take down entire frontend** means access to all sites will be restricted, and is the recommended option.

        o   **Take down only relevant websites** means access will be restricted only to the site(s) involved in the merge or rollback activity.

   ❖ **Landing Page** – Select the CMS page that will be shown if the site is closed during a merge or rollback activity.

3. Click the [✔Save Config] button to save your settings.

To create a new content staging website:

Magento Enterprise Edition allows you to create as many Staging Websites as required.

1. Choose **System > Content Staging > Staging Websites**.
   This page contains a grid listing all existing Staging Websites.

2. Click the [+Add Staging Website] button.

3. Select one of existing websites as the base in the **Source Website** drop-down menu and click the [Continue] button.

4. Configure the staging website with the following options:

   ❖ **Label** - Unique name assigned to the staging environment so that it is easily recognizable.

   ❖ **Staging Website Code** - Unique website code of the Staging Website. This field will be pre-populated with and automatically generated code, although you have the ability to modify the value.

   ❖ **Staging Website Name** - Name of the Staging Website. This field will be pre-populated with and automatically generated name, although you have the ability to modify the value.

❖ **Base URL and Secure Base URL** - Base address of the Staging Website. If the website is to be hosted on a separate domain or in a non-default location, enter a new value.

❖ **Frontend Restriction** - Controls how the frontend of the Staging Website can be accessed. The following options are available:

- o **Not accessible** - Disables access to the entire staging frontend.
- o **Accessible** – The staging site is open and can be accessed by anyone that knows the URL.
- o **Require HTTP Auth** – The staging site will show a username and password prompt on access, which can be configured below.

❖ **HTTP Login** and **HTTP Password** - Enter the username and password used for restricting frontend access when the Frontend Restriction drop-down menu above is set to Require HTTP Auth.

5. **Select Original Website Content to be Copied to Staging Website** – This section determines which items will be copied to the Staging Website from the source Website.

6. **Select Original Website Store Views to be Copied to Staging Website** – This Section determines which Store Views will be copied to the Staging Website from the source Website.

7. Click the [Create] button to save your settings. You will be redirected to the Staging Websites grid.

Now you can start editing content, assign it to the Staging Website, and change attributes on the Website or Store View level of the Staging Website.

You can also edit the staging environment by clicking on the desired Staging Website in the grid. While editing, you can change the Label and Frontend Restriction options. You can also view the **Event History** tab, listing all events (creation, merge, or rollback) that were done in this site.

> *Note:* *You can also create Staging Websites based on other Staging Websites. This allows more people to work on different parts of the new content. The content can be merged to the beta Website, fully tested and reviewed, and finally merged to the production (live) Website.*

Merging Content

After making all the necessary content changes on the Staging Website you can merge or schedule merging of the Staging Website to another Website.

To merge or schedule merging of a Website:

1. Navigate to **System > Content Staging > Staging Websites**.

2. Click on the staging website in the grid that you want to merge.

3. Click the [Merge] button to open the mapping configuration page.

4. In the top section, define the mapping of the Websites and Store Views. This controls which Staging Website is merged to which live Website, and which staging Store View is merged to which live Store View.

❖ Select the **To** Website, which is the target Website. The **To** website can be either the Source Website, or another Website.

❖ Click Add New Store View Map.

❖ Select the **From** and **To** Store Views. Each From Store View option can only be selected once.

❖ Repeat adding Store View maps for all Store Views that need to be merged.

5. Select the **Create a backup** check box if you want to create a backup of the live site before merging.

6. In the **Select Items to be merged** section, select all items that you want to merge from the staging to the live website.

7. Click **Merge Now** or specify a date and time and click **Schedule Merge**.

Note: *for a scheduled merge to be applied, the Magento cron job has to be running on the server.*

Note: *You can only create one backup for each website per merge. Backups are created in the database and require significant database space. Backups are not updated when Magento is updated. If the table structure is changed during an update, there will be no way to restore the backup.*

Rolling Back Merges

If you have selected the **Create a backup** check box during website merging, a backup of the target Website will be created just before the merge. This backup only contains the tables related to the content staging merge and is not a backup of the entire site.

To roll back website content:

1. Navigate to **System > Content Staging > Backups**. This page contains a grid listing all existing backups.

2. Click on the backup in the grid that you want to roll back. You will be redirected to the Website Backup Information page. This page has three tabs available in the left column:

❖ **Backup General Info** - Displays the basic backup information. **Table Prefix** is the prefix used for backup tables of this website in the database.

❖ **Rollback History** - Displays events associated with this backup.

❖ **Rollback** - Contains the list of items which are available for rollback.

3. In the **Rollback** tab choose the items that you want to restore. You can only select the items which are **available**.

4. Click the **Rollback** button. After the website is restored, you will be redirected to the backup grid.

> **Note:** *Items are available for rollback only if the table versions of the backup and original Website match. If they do not match, the rollback is not possible with Magento functionality. It can be carefully performed using manual database administration tools, however this is not recommended. The table version might change when an upgrade of the Magento system also changes the structure of some of the tables.*

Rollback can be used either to restore content if an error is noticed after a merge, or to restore to a previous site version when the staging site is used for seasonal or temporary Website changes.

Working with a Content Staging Website

Content staging is a very powerful tool, but requires caution to use it effectively. An important thing to understand is that the Staging Website it is not a separate beta Website with a separate database. It is another Website in the store that is hidden. Thus, creating and deleting content, such as products, requires special attention.

To remove a product from a staging website:

You cannot and should not "delete" a product from a content staging website. Deletion of the product in staging will result in deletion from the live site as well. To remove a product from a content staging website, you should simply disable it in that website.

1. Navigate to **Catalog** > **Manage Products** and select the desired product from the grid.

2. In the **Websites** tab, uncheck the Staging Website that you wish to de-associate from the product. Alternatively, you can change the **Choose Store View** scope drop-down menu to the desired Staging Website, navigate to the **General** tab, and select **Disabled** in the **Status** drop-down menu. Click **Save** when you are finished. This will remove the product from the Staging Website, but it will still exist in the production site until a merge is performed.

3. Merge the Staging Website into the production Website by following the steps in the previous section of this chapter.

The product will be unassigned to or disabled in the Staging Website as well as the production Website. Now you can safely delete the product, as it is no longer used.

To create a product on a staging website:

1. Navigate to **Catalog** > **Manage Products** and click **Add Product**.

2. Create the product as usual and assign it only to the Staging Website on the **Websites** tab. Save the product.

3. Merge the Staging Website into the production Website by following the steps in the previous section of this chapter.

Now the product will be available in both the staging and production Websites.

Similar steps should be taken when working with other types of content.

Special care has to be taken when upgrading Magento. Upgrades will modify Staging Websites but will not modify the backups, and in many cases (if the upgrade modifies content tables) this can render the backup unusable. It is advisable to perform upgrades before working on Staging Websites, or after a merge is performed, confirmed and no rollback is expected to be used.

39.2   Changing the Favicon

Magento Enterprise Edition enables you to upload a new favicon for a website, store, or store view from the Admin Panel. The favicon is a graphic, associated with your store, that appears in the end user's Favorites list and other places in the browser.

While some browsers support additional file types as favicons, the safest format is an ICO file that is 16x16 pixels or 32x32 pixels. Many free favicon converter tools are available online to convert your PNG, GIF, and JPG files to the ICO format.

To change the favicon:

1. Choose **System** > **Configuration**. Be sure to select the desired Configuration Scope.

2. Select the **Design** tab on the left. In the **HTML Head** panel, configure your staging websites:

   ❖ **Favicon icon** - Click the Browse button. In the File Upload dialog box, browse for the desired image file on your computer and then click the Open button.

3. Click the [✔**Save Config**] button to save your favicon.

   Note: Magento does not convert an image from other file formats to an appropriate one; therefore, the store administration needs to perform the file conversion prior to uploading an image file.

40 Alternate Media Storage: Content Delivery Network and Database

Magento Enterprise Edition enables you to store media files in a database on a database server or in a Content Delivery Network (CDN), as opposed to storing them on the file system of the web server. The advantage of this feature is that it minimizes the effort required to synchronize media when multiple instances of the system that are deployed on different servers need to access the same images, CSS files, and other media files.

This feature was introduced in Version 1.10 of the Magento Enterprise edition.

> **Note:** *CDN as alternate media storage is implemented as a support option only, not as a full integration with a specific CDN. You must choose and configure a CDN on your own.*

40.1   Using a Database as Alternate Media Storage

By default, all images, compiled CSS files, and compiled JavaScript files of the Magento instance are stored in the file system on the web server. You can choose to store these files in a database on a database server. One advantage of this approach is the option of automatic synchronization and reverse synchronization between the web server file system and the database. You can use the default database to store media or create a new one. To be able to use a newly created database as media storage, you must add information about it and its access credentials to the `local.xml` file.

To switch to using a database as media storage or change to another database, do the following. This configuration is done at the global level.

1. Navigate to **System > Configuration >** ADVANCED **> Advanced > System > Storage Configuration for Media**.

2. In the **Media Storage** drop-down menu, select **Database**. The **Select Media Database** drop-down menu and the **Synchronize** button appear. In the drop-down menu, all the databases that are specified in the `local.xml` file are listed.

3. In the **Select Media Database** drop-down menu, select the database you want to use.

4. Click the **Synchronize** button to transfer the existing media to the newly selected database.

Accessing Media from a Database

When the customer opens the store page, its browser requests the HTML code and the media specified in the HTML code from the Magento system. The system searches the requested media in the file system and passes it to the browser, if it is found. If the system does not find the media in the file system, it requests the media from the database specified in the settings, places the media to the file system, and sends it to the customer's web browser.

To get the files from the database to the file system on the web server a PHP script is used. When the browser requests media from the web server, there are two alternatives of when a PHP script is run:

1. If web server rewrites are enabled in the Magento system and supported by the server, the PHP script is run only when the requested media is not found in the web server file system.

2. If web server rewrites are disabled in the Magento system or not supported by the server, the PHP script is run in any case, even when the required media exists in the file system of the web server.

> *Note: You can configure web server rewrites in System > GENERAL > Web > Search Engine Optimization > Use Web Server Rewrites.*

40.2   CDN as Alternate Media Storage

Storing media files in a CDN is another alternative supported in Magento. There is no full integration with a specific CDN, and you are responsible for choosing and configuring a CDN on your own.

After configuring the CDN, you must perform the following changes in the Admin Panel; these changes can be made at either the global or website level:

1. Navigate to **System** > **Configuration** > GENERAL > **Web**.

2. Change the value of the **Base Media URL** and **Base JavaScript URL** fields in the **Unsecure** and **Secure** field groups. Change the value of the **Base Skin URL** field if you want skins to be stored on the CDN as well.

Accessing Media from a CDN

When a CDN is selected as media storage, all paths to media on the web store pages are changed to paths to the CDN.

Retrieving media that is stored in a CDN works as follows: When a customer opens the web store page, the browser addresses the CDN with the request to acquire some media files, such as images. If the CDN does not yet have these images in its storage, it requests them from the server, and provides images to the customer's browser. If the CDN already has the required images in storage, it simply serves the requested images to the customer's browser.

> **Important Note:** *When a CDN is used as media storage, JavaScript may not function properly if the CDN is not in your subdomain. This is a browser security feature.*

41 Full-Page Caching

Full-page provides quicker loading time for frontend pages by caching the entire contents of pages. Magento caches category, product and CMS pages. As a general concept, caching improves response time and reduces server load.

Chapter Quick Reference

The table below lists some of the most common tasks for using EE's full-page caching and where to go in the Admin Panel to perform them. The sections that follow provide step-by-step instructions on each.

TASK	ADMIN MENU
To configure the page cache	System > Configuration > System tab Full Page Cache Settings panel
To configure auto generation of the page cache	System > Configuration > System tab Full Page Cache Auto Generation
To enable/disable the page cache	System > Cache Management Action: Disable/Enable
To manually clear the page cache	System > Cache Management Action: Refresh

41.1   Implementing Full-Page Caching

When page caching is enabled, rather than generating each page each time a page is visited—running block code and retrieving page information from the database—the fully generated page can be stored after the first page visit or even pre-generated and stored. The cached content is then used to process the same requests from other visitors. After a page is cached, it takes less time to open it again in the browser.

For the purposes of caching, visitors to your website fall into the following categories:

❖ Non-sessioned visitors – Visitors who are just browsing a site.

❖ Sessioned visitors – Visitors who interact with a store by comparing products or adding products to the shopping cart and therefore have a session ID.

❖ Customers – Logged-in visitors who have a relation to a customer group which can affect prices.

Most visitors to any website are non-sessioned, so the cache is populated mostly with the content of pages visited by such visitors. When non-sessioned visitors browse a store, the system caches the content of these pages, which can be served again to other non-sessioned visitors. Cached page content generated by a sessioned visitor visiting a category or a product page is only available for the same sessioned visitor.

In the current version of Magento Enterprise Edition, the whole category, product, or CMS page content is cached including the static and dynamic blocks after a shopper visits a page for the first time. When the content of a dynamic block on a cached page changes, the cached page is retrieved, the dynamic block is overwritten, and the changed page is re-cached.

To configure full-page caching:

The Site Administrator has some control over how much site content is cached. These settings control the page cache that is generated after a visitor visits a page for the first time. Pages that are never visited are not cached.

1. Choose **System > Configuration**. Select the **System** tab on the left.

2. In the **Full Page Cache** panel, you can set the following values:

   ❖ **Cache Lifetime (minutes)** – For versions EEv1.8 and older. Determines the number of minutes after which the page cache will be removed. A new page cache will be created the next time a visitor visits the page after the previous cache has been removed.

   ❖ **Maximum Allowed Page Depth** – Determines the number of layered navigation filters, or parameters that can be applied in order for a page to be cached. For example, each layered navigation filter applied to a page is another parameter. If the page depth is limited to two, each filter will be cached, as well as any combination of two filters. However, combinations of three or more filters will not be cached. This allows control over the number of cached files that will be stored.

   ❖ **Enable Cache For Not Default Currencies** – Determines whether pages containing currencies other than the default currency will be cached.

     o **Yes** – Enables page caching for all currencies in the store's allowed currency list (as set in **System > Configuration > Currency Setup**). Each allowed currency represents another variant of the same page. When enabled, this option greatly increases the cache storage size.

     o **No** – Only pages for the default currency will be cached.

3. Click the [✔Save Config] button to save your settings.

To enable and configure full-page cache auto generation:

Magento's page cache is typically visitor generated, meaning that pages are cached after they're visited the first time. When a site first goes live, or after large numbers of content changes, you may want to force the cache to re-generate itself fully.

Magento's Full Page Cache Auto Generation functionality generates the page cache by crawling the website, rather than by waiting for visitors to click to each page. This creates more cached pages than does visitor-generated page caching, because pages are cached even if they are not visited. Auto-generating the page cache ensures that the initial visitor to a page avoids the longer load time. It can be a very resource intensive process, however, and should not be done during high traffic times on your site.

1. Choose **System > Configuration**. Select the **System** tab on the left.

2. In the **Full Page Cache Auto Generation** panel, you can set the following values:

   ❖ Enable Pages Cache Auto Generation

o **Yes** – Enables this feature. This does not cause the page cache to be auto-generated, however. To start the auto-generation process, enable it here and then go to the Cache Management screen (**System > Cache Management**) and flush the Magento cache there. This action will trigger the auto-generation process.

o **No** – The page cache will not be generated by a crawler and will be generated only as visitors visit each page on your site.

❖ **Crawler Thread Number** – Determines the number of parallel requests during this process. The crawler class that emulates the first visit to a page can work in a multi-thread mode. A higher number of threads will reduce the amount of time required to cache all pages; however, it will also consume more system resources. Be careful with this option. Depending on your hardware and server configuration, it is recommended that you use no more than one to five parallel threads.

❖ **Generate Pages Cache For Not Default Currencies** – Determines whether pages containing currencies other than the default currency will be cached.

3. Click the [✔Save Config] button to save your settings.

Because this feature can be so resource intensive, it is recommended that you enable it only when needed, and that you flush the Magento cache to trigger the auto-generation process. Then you can disable it until the next time you want to fully regenerate the page cache.

To enable/disable page caching:

Full-page caching is enabled by default. You can disable and re-enable it as you need. It's generally a good idea to disable page caching when a site is in development and to re-enable it when the site goes live.

1. To disable and/or re-enable full-page caching, go to **System > Cache Management**.

2. Select **Page Cache** in the Cache Storage Management grid.

3. Select **Enable** or **Disable** from the **Action** drop-down menu in the top right of the grid.

To manually clear the page cache:

After making changes to products or CMS pages and blocks, you may want to clear the page cache in order to force the updates to appear. If you've enabled page cache auto generation refreshing, then the page cache also triggers the auto-generation process.

1. To refresh the page cache, go to **System > Cache Management**.

2. Select **Page Cache** in the Cache Storage Management grid.

3. Select **Refresh** from the **Action** drop-down menu in the top right of the grid.
The page cache will be cleared and will begin to be regenerated as shoppers visit pages on the website.

42 Rich Merchandising Suite (RMS)

This chapter introduces Magento Enterprise Edition's Rich Merchandising Suite (RMS) of features.

42.1 Targeted Marketing Using Customer Segments

Customer Segments allow you to dynamically identify customer groups based on specific characteristics, from address information, order history, shopping cart contents, and more *and to dynamically target different content and promotions to those groups*. You can then generate reports and export the customers, as well as optimize marketing initiatives based on those segments including Shopping Cart Price Rules and Banners. Customer Segment information constantly refreshes, so that customers can become associated and de-associated to a Segment as their information changes.

In Magento Enterprise Edition 1.12 and later, Customer Segments can be created for both guest customers and logged-in customers.

To create a new Customer Segment

1. Navigate to **Customers > Customer Segments**.
2. After clicking **Add Segment** configure the segment with the following options:
   - ❖ **General Properties** tab:
     - o **Segment Name** - This name is for internal purposes.
     - o **Description** – This description is also for internal purposes, and provides an optional space to enter more detailed information than can be contained in the Segment Name.
     - o **Assigned to Website** - A Customer Segment can only be assigned to one Website, because the conditions can use information that is specific to each Website. To use the same conditions on multiple Websites, you must create multiple Segments.
     - o **Status** - Select **Active** to enable this Segment. Price Rules and Banners associated to this Segment can be unassociated by selecting **Inactive**, without having to edit the Price Rule or Banners.
     - o **Apply to** (available in Magento Enterprise Edition v1.12 and later) – Defines the customer types to which the segment is applied. The selection influences the set of conditions available for creating the segment. The option cannot be changed after the segment is saved. Possible options:
       - o **Visitors and Registered Customers** – The segment will be applied to shoppers who are logged in as well as those who are not logged in.

- o **Registered Customers** – The segment will be applied only to shoppers who are logged in.

- o **Visitors** – The segment will be applied to shoppers who are not logged in.

❖ **Conditions** tab (available in Magento Enterprise Edition v1.12 and later): This tab becomes available after you save the segment. In the **Conditions** tab, you can define the rules by which customers will be associated to this Segment. These rules are defined in a similar manner to those of Shopping Cart and Catalog Price Rules, with different options. There are 5 main characteristics upon which these rules can be based.

- o **Customer Address** - You can define any of the address fields, such as city or country. Any address in a customer's address book can match these conditions for the customer to match. Or, you can specify that only the default billing or shipping addresses can be used to match a customer. . Available only for customers who are logged in.

- o **Customer** – Miscellaneous customer information can be defined, including Customer Group, name, email, newsletter subscription status, and Store Credit balance. . Available only for customers who are logged in.

- o **Shopping Cart** – Shopping Cart characteristics can be based on either quantity (line items or total quantity) or monetary amount (grand total, tax, gift card, etc.) currently in the shopping cart.

- o **Products** - You can define products that are in the shopping cart or wishlist, or that have previously been viewed or ordered. You can also set a date range for when this occurred. The products are defined using product attributes. There is a new setting in the attribute management page called **Use for Customer Segment Conditions**, which must be set to Yes for the attribute to appear in this section.

- o **Sales** - Order characteristics for past orders can be defined based on the billing/shipping address in the order, the total or average amount or quantity of the orders, or the total number of orders. You can also set a date range for when this occurred, and the order status of the orders that match these conditions. Available only for customers who are logged in.

Note: Conditions that are set for shoppers who are not logged in stop working when these shoppers log in.

❖ **Matched Customers** - This tab appears only for previously created Segments. It will be discussed in the Reports section below.

Reporting Based on Customer Segments

Reports for Customer Segments can be generated in two locations. You can navigate to **Customers > Customer Segments**, and select an existing Customer Segment from the grid. Then, click on the Matched Customers tab. This tab will only exist for previously created Customer Segments, so it will not be available when creating a new Segment. The number of customers that currently match the conditions of this Segment will be noted in the tab in parentheses. To refresh the Segment data, and get the most up-to-date list of matched customers, click **Match Customers** at the top of the page. The list of customers can be exported to CSV or Excel by using the **Export to** drop-down menu, and clicking **Export**. The second location where a report can be generated is **Reports > Customers > Customer Segments**. Select an existing Customer Segment. The report can be generated using the same Export options. In future releases, this report will also enable you to quickly cross-reference Customer Segments.

Promotions Based on Customer Segments

In order to use these Customer Segments for marketing purposes, you can associate them to Shopping Cart Price Rules or Banners.

❖ **Shopping Cart Price Rules** – To associate a Segment to a Shopping Cart Price Rule, navigate to **Promotions > Shopping Cart Price Rules, click Add New Rule** or select an existing Shopping Cart Price Rule from the grid, click the **Conditions** tab, and select **Customer Segment** as a condition in the drop-down menu. You can specify the Segment to use from a grid listing all of the existing Segments.

❖ **Banners** – To associate a Segment to a Banner, navigate to **CMS > Banners**, click **Add Banner** or select an existing Banner from the grid, and select **Specified** from the **Customer Segments** drop-down menu. This will open a multi-select menu including all existing Segments. You can associate multiple Segments to a Banner.

42.2   Creating Dynamic Product Relationships

Rule-Based Product Relations offer further targeted merchandising to your customers. You will be able to suggest products for customers through automated rule-based selection of products to be used for related items, up-sells, and cross-sells.

To create a new Rule-Based Product Relation:

1. Choose **Catalog > Rule-Based Product Relations**.

2. After clicking **Add Rule**, configure the Rule-Based Product Relation using the following options:

❖ Rule Information

o **Rule Name** – This is for internal purposes.

- o **Priority** – When multiple rules overlap on a product page or the shopping cart, the priority will determine the sort order of each group of displayed products. For example, if Rule 1 (with priority 1) displays three products, and Rule 2 (with priority 2) displays five products, and both rules apply to the same product's up-sells list, then the three Rule 1 products will always display before the five Rule 2 products. However, the sort order of the Rule 1 products relative to one another is random. Additionally, if there is a mix of rules and manually added products, the manually added products will always display before the rule-based products. Products can be manually added by navigating to **Catalog > Manage Products**, clicking **Add Product** or selecting an existing product from the grid, and selecting the **Related Products**, **Up-sells**, or **Cross-sells** tab. From these tabs, you can manually select which specific products will be displayed.
- o **Status** – Select **Active** for this rule to apply.
- o **Apply To** – Select whether this rule will apply to a product's **Related Products**, **Up-sells**, or **Cross-sells**.
- o **From/To Date** – You can select a date range in which the rule will automatically become enabled and/or disabled.
- o **Result Limit** – You can set a limit for the number of products that will be displayed. The maximum number is 20, but you can set a smaller limit. For example, if you are creating an Up-sell rule, and there are 40 products which match the conditions in the Products to Display tab, you can set the limit to 10. This will automatically choose 10 of those 40 products, which will then rotate through the Up-sells block. The advantage to setting a lower limit is that it reduces the processing time.

- ❖ **Products to Match** - In this tab, set the product conditions to determine which products will have this rule applied to it. These conditions are defined in the same manner as Catalog Price Rules, whereby the products are defined using product attributes. There is a new setting in the attribute management page called **Use for Target Rule Conditions**, which must be set to Yes for the attribute to appear in this section.

- ❖ **Products to Display** – In this tab, set the product conditions to determine which products will be displayed in the Related Products, Up-sells, or Cross-sells blocks. The conditions are almost identical to those of the Products to Match tab, with one additional option available. You can determine which products to display based on a price relationship with the Matched Product. For example, if you want to display Up-sell products which are at least twice the price of the Matched Product, you can show only products which are 200% or more of the Matched Product price.

42.3   Automatically Sending Reminder Emails to Customers

The automated reminder email feature allows you to set your store to automatically send reminder emails at time interval you determine to customers who've added something to their shopping cart or wishlist but have not yet purchased. Emails can be triggered when it's X days after the shopping cart or wishlist was abandoned or you can also add other conditions like total cart value, quantity, items in cart, whether the wishlist was shared with anyone or several other conditions. Emails can go out simply as reminders to revisit the site or can have a coupon code associated with them. One of the most powerful features is that unique coupon codes can automatically be generated for each email so that you have complete control over the offers you associate with reminder emails.

To enable and configure automated email reminders:

1. Choose **System > Configuration**. Select the **Promotions** tab on the left.

2. In the **Automated Email Reminder Rules** panel, you can set the following values:

    ❖ **Enable Reminder Emails –** Enables automated email reminders. If this is set to **No**, all of the following values will be ignored.

    ❖ **Frequency –** Indicates the frequency with which Magento should check for new customers who qualify for the automated email reminders. Choices are **Minute Intervals** (every X minutes), **Hourly** (every hour), or **Daily**.

    ○ **Interval** or **Minute of the Hour** should be set if Minute Intervals or Hourly are chosen.

    ❖ **Start Time –** Time of day of the first check. Specified in 24-hour time based on the system time on your server.

    ❖ **Maximum Emails per One Run –** Enables to you limit the number of emails sent at the same time in any scheduled block.

    ❖ **Email Send Failure Threshold –** The number of times the reminder attempts to send out notifications to specific email address and fails. When the value is set to 0, there is no threshold, and notifications will keep being sent despite any failures.

    ❖ **Reminder Email Sender –** Sets which store contact (as previously set in **System > Configuration > Store Email Addresses** tab) will be associated with the email on the From line.

3. Click the **Save Config** button to save your settings

To create an email template for your automated email reminders:

1. Choose **System > Transactional Emails**.

2. Click the **[+Add New Template]** button

3. The default email template for reminder emails is called "Rule Reminder." Just to get started, select this email template from the Template drop-down menu and click the **[✔Load Template]** button. The contents of that template will appear in the "Template Information" panel below it.

4. You will see that you have the following variables available to you in email reminders. These variables are unique to the Rules Reminder email template. The promotion information in these variables is determined by the automated email reminder rule you set up and the coupon information in these variables is determined by the shopping cart price rule you associate with the automated email reminder rule.

- ❖ `promotion_name`
- ❖ `promotion_description`
- ❖ `coupon.getCode()`
- ❖ `coupon.getUsageLimit()`
- ❖ `coupon.getUsagePerCustomer()`

5. See "Customizing Transactional Emails, page 156, for more information on the basics of editing transactional emails. When you're done editing the reminder email template to fit your brand and needs, give it a name and click the [✔Save Template] button.

To create a rule for your automated email reminders:

Before setting up an automated email reminder rule, make sure you have a shopping cart price rule set up that defines the promotion being offered.

1. Choose **Promotions > Automated Email Reminder Rules**.

2. Click the [**+Add New Rule**] button.

3. In the **Rule Information** tab, you can set the following values:

- ❖ **Rule Name -** Name of automated reminder rule, used internally
- ❖ **Description -** Description of automated reminder rule, used internally
- ❖ **Shopping Cart Price Rule -** This is the promotion rule (created in **Promotions > Shopping Cart Price Rules**) that this reminder will advertise. Reminder emails may promote a shopping cart price rule with or without coupon. If a shopping cart price rule defines an auto-generated coupon, this reminder rule will generate a random, unique coupon code for each customer.
- ❖ **Assign to Websites -** Select which websites should receive automated reminder emails based on this rule.
- ❖ **Status - Active** or **inactive**. If status is inactive, then all other settings will be ignore and the rule will not be triggered.
- ❖ **Active From -** Starting date for this automated reminder rule. If no date is specified, then the rule will be active immediately.
- ❖ **Active To -** Ending date for this automated reminder rule. If no date is specified the rule will remain active indefinitely.
- ❖ **Repeat Schedule -** Number of days before the rule is triggered again and the reminder email sent again if the conditions are still met. To trigger the rule more than once, enter the number of days of each check separated by commas. For example, enter "7" to have the rule re-triggered again 7 days later; enter "7,14" to have the rule re-triggered 7 days and then again 14 days later.

4. In the **Conditions** tab, using the standard Magento interface for promotions, you can set the following values:

❖ Rules can be based either on Shopping Carts, Wishlists or both.

❖ For Wishlists, available trigger conditions include: number of days abandoned, sharing, number of items, specific items in Wishlist.

❖ For Shopping Carts, available trigger conditions include: number of days abandoned, if a specific coupon code has been applied, line items quantity, items quantity, total, if items are virtual, and specific items in the shopping cart.

5. In the **Emails and Labels** tab, you can set the following values:

❖ **Assign email templates to each store -** Each store in your Magento installation that you have access to will be listed here. Select the email reminder template you would like to go out to each. Leave the value here as "—Not Selected— " if you don't want to send this rule's reminder email to the customers of that store.

❖ **Rule Title (default for all stores) -** Rule title is accessible in email templates as a variable.

❖ **Rule Description (default for all stores) -** Rule description is accessible in email templates as a variable.

❖ **Rule Title (per store view) -** Per store view override of the default title value supplied above.

❖ **Rule Description (per store view) -** Per store view override of the default description value supplied above.

6. Click the **Save** button to save your rule.

> *Important Note: For automated email reminders to be sent as configured in the Admin panel, the crontab service (for UNIX/BSD/Linux) or the Scheduled Tasks service (for Windows) should be configured to run the necessary script periodically. You can find more details at:*
> *http://www.magentocommerce.com/wiki/1_-_installation_and_configuration/how_to_setup_a_cron_job*

43 Gift Cards

This chapter introduces physical and virtual Gift Card products that can be purchased in the site, and Gift Card Accounts which hold balance that can be redeemed during checkout. These features are available in Magento Enterprise Edition.

43.1   Configuring Gift Cards

There are some configuration settings that must be completed relating to Gift Card Accounts.

To configure gift cards:

1. Choose **System** > **Configuration** and select the **Gift Cards** tab in the left column.

2. These will be the default settings for all Gift Card products, and most can be edited on a per product level. The following settings are available:

   ❖ **Gift Card Notification Email Sender** - Select the sender of the email that will be sent when a Gift Card Account is created. This only applies to accounts created automatically from the purchase of a Gift Card product, and does not apply to accounts created manually by an administrator. The configuration of emails sent for accounts created by an administrator will be described later in this chapter.

   ❖ **Gift Card Notification Email Template** - Select the template of the email that will be sent when a Gift Card Account is created.

   ❖ **Redeemable** - Determines whether or not the accounts that will be created for Gift Cards will be redeemable (able to be transferred to Store Credit) upon creation.

   ❖ **Lifetime (days)** - Determines the expiration date for all accounts. The accounts will expire X number of days after the Gift Card is purchased. If you do not wish to set a default lifetime, leave this field blank.

   ❖ **Allow Gift Message** - Determines whether the customer purchasing the Gift Card can add a message that will be sent to the recipient of the card (via email and/or with the shipment of the physical Gift Card).

   ❖ **Gift Message Maximum Length** - Determines the maximum allowed length of gift messages.

   ❖ **Generate Gift Card Account when Order Item is** - Determine the point at which an account is created for Gift Card products. If you select **Ordered**, the account will be created when the order containing the Gift Card is completed. If you select **Invoiced**, the account will be created when the order containing the Gift Card has been invoiced.

Gift Card Code Pool

The Code Pool is a pre-generated set of unique Gift Card codes in a specific format. Codes from the Code Pool are used each time a Gift Card Account is created. It is the administrator's responsibility to assure there are enough free codes in the code pool for the Gift Cards. Make sure to generate a Code Pool before starting to offer Gift Card products.

To generate a new Code Pool:

1. Navigate to **System > Configuration** and select the **Gift Card** tab in the left column.

2. In the Gift Card Account General Setting panel, set the following settings:

   ❖ **Code Length** - Determines the number of characters that will be used in all Gift Card codes, not including the prefix, suffix or separators.

   ❖ **Code Format** - Choose whether the code will be **Alphanumeric** (a mix of letters and numbers), **Alphabetical** (letters only), or **Numeric** (numbers only).

   ❖ **Code Prefix** - Allows you to add a value that will be appended to the beginning of all codes, and is optional.

   ❖ **Code Suffix** - Allows you to add a value that will be appended to the end of all codes, and is also optional.

   ❖ **Dash Every X Characters** - Allows you to determine the interval at which a dash (-) will be inserted in all codes. If you do not want to use a dash, leave this field blank.

   ❖ **New Pool Size** – Determines the number of unique codes to be generated.

3. Click **Save Config** in the top right of the page to save the settings used for code generation.

4. Click the **Generate** button to generate the Code Pool.

> **Note:** *If the Code Length is not long enough to allow for generating the requested number of codes, an error message will be shown.*
>
> **Note:** *Depending on the settings and number of codes already used, Magento may generate fewer codes than requested.*

43.2   Gift Card Accounts

Gift Card Accounts are entities which hold the balance of Gift Cards, and they can be used for paying in the store. A Gift Card Account is created for each Gift Card product purchased.

To create a new account:

1. Gift Card Accounts can be managed by navigating to **Customers > Gift Card Accounts**. This page contains a grid listing all existing accounts and gives you the ability to create a new account, or edit existing accounts.

2. Click the **Add Gift Card Account** button in the top right of the page.

3. When creating or editing a Gift Card Account, there are multiple tabs. In the **Information** tab, the following options are available:

   ❖ **Active** - Determines whether or not the balance of the account can be redeemed during checkout. Also determines whether or not the balance of the account can be transferred to a customer's Store Credit.

   ❖ **Redeemable** - Determines whether or not the balance of the account can be transferred to a customer's Store Credit.

   ❖ **Website** - Determines the website in which the account can be redeemed.

❖ **Balance** - Determines the balance of the account.

❖ **Expiration Date** - Determines the date on which the account expires and becomes inactive. This is optional, and leaving it blank will mean that the account is not set to expire.

❖ In the **Send Gift Card** tab, the following options are available:

    o **Recipient Email** - Enter the email address to which an email notification of this Gift Card Account will be sent. This field is optional, and no email will be sent if it is left blank.

    o **Recipient Name** - Enter the name of the email recipient.

4. When you have completed these settings, click the **Save** button in the top right of the page. If you have entered a Recipient Email, click the **Save & Send Email** button. The Sender and Template of the email that will be sent is different from that of the email sent for a Gift Card product. To edit the Sender and Template of this email, navigate to **System > Configuration**, click the **Gift Card Accounts** tab, and select the **Email sent from Gift Card Account management** section.

After the Gift Card Account is saved, you will be redirected to the Gift Card Account grid page, and the newly created account will be listed. To edit any of these settings, click on the row of the account you wish you edit. You will be able to edit all of the same settings that you entered when creating the account. In addition to this, you will see the account **Gift Card Code** and **Status** in the Information tab (both of which are not editable), as well as a **History** tab which displays the balance history of the Gift Card Account.

43.3   Gift Card Products

Gift Card Products are the actual products that can be purchased in the store. There are three types of Gift Card Products: Virtual, Physical and Combined.

To create a new Gift Card:

1. Choose **Catalog > Manage Products**.

2. Click **Add Product** in the top right of the page.

3. Select your desired Attribute Set, select **Gift Card** from Product Type drop-down menu, and click **Continue**.

4. Set the Gift Card pricing in the **Prices** tab. Rather than having a price field like that of a Simple Product, Gift Cards have a price configuration feature similar to that of the tier price feature. You can add additional prices by clicking the **Add Amount** button. Each amount added will appear in a drop-down menu on the frontend. Instead of using set prices, you also have the option of allowing the customer to specify a gift card amount into an open field. To enable this option, select Yes in the **Allow Open Amount** drop-down menu. If using this feature, you can set a maximum and/or minimum amount (**Open Amount Min Value** and **Open Amount Max Value** options) that the customer can enter into the amount field. Additionally, you can use set prices and open amounts concurrently. This feature will add an **Other Amount** option to the drop-down menu on the product page, which will generate an open field when selected.

5. Set the Gift Card options in the Gift Card Information tab. The following options are available:

❖ **Card Type** - Determines the type of the Gift Card. The possible values are:

o **Virtual** – The Gift Card information will be sent by email (the order will require the email address of the recipient). No shipping information will be necessary.

o **Physical** – The Gift Card will be shipped (the order will require the shipping address of the recipient). No email will be sent to the recipient.

o **Combined** – The Gift Card will be shipped and sent by email (the order will require both the shipping address and email address of the recipient)

❖ **Redeemable** - Determines whether or not the account that will be created for this Gift Card will be redeemable (able to be transferred to Store Credit) upon creation.

❖ **Lifetime (days)** - Determines the expiration date for Gift Card Account created for this Gift Card. The accounts will expire X number of days after the Gift Card is purchased. If you do not wish to set a default lifetime, leave this field blank.

❖ **Allow Gift Message** - Determines whether the customer purchasing the Gift Card can add a message that will be sent to the recipient of the card (via email and/or with the shipment of the physical Gift Card).

❖ **Email Template** - Select the template of the email that will be sent when the Gift Card Account is created.

6. Fill in the remaining product information (name, SKU, categories, related products, etc.) as you would for a Simple Product.

7. Click **Save** in the top right of the page.

Purchasing Gift Cards

Gift Card products have several features in addition to a typical Simple or Virtual Product. Most notably is the price, which is configurable. Depending on the price settings you entered in the Prices tab, there will either be a drop-down menu containing set prices, an open field, or a combination (in this case, the drop-down menu will contain an **Other Amount** option, which will create an open field when selected). All amounts are in the display currency currently used in that store, but the actual amount of the Gift Card is converted to the base currency once added to the cart.

In addition to this is the **Sender Name** (and **Sender Email** if the Gift Card is Virtual or Combined) and **Recipient Name** (and **Recipient Email** if the Gift Card is Virtual or Combined). If the customer is logged in when viewing this page, the **Sender Name** (and **Sender Email**, if applicable) will be pre-populated. If you have selected to allow messages, there will also be a **Message** text area.

If multiple Gift Cards are purchased in one order, and the Gift Card is Virtual or Combined, then all the corresponding Gift Card codes will be sent to the recipient in one email.

For all Gift Card types, the generated account codes will be shown in the order information page in the admin. This will allow you to retrieve the code to place it on the physical gift card, if necessary.

If an order containing a Gift Card product is canceled or refunded, you will need to manually cancel the Gift Card account. You can either delete the account entirely, or simply deactivate it.

Paying with Gift Cards

Gift Card accounts can be redeemed in the shopping cart, similar to the manner in which a coupon is applied to an order. There is a block that contains a field for entering the Gift Card code, and a button used to apply that account to the items in the cart. Additionally, this block contains a **Check Gift Card status and balance** link. This navigates the customer to a page where they can enter their Gift Card code(s) and view the remaining balance.

Multiple Gift Cards accounts can be applied to a shopping cart. Each time a Gift Card is applied, the amount is displayed in the order totals block, subtracting from the grand total. The full balance of each Gift Card will be subtracted from the shopping cart total. Multiple Gift Cards will be applied in ascending order, meaning the accounts with the smallest remaining balances will be applied first, until the customer runs out of cards, or until the grand total becomes zero. If the grand total becomes zero, the last account that actually applies to the cart will receive a partial deduction, and any cards that have not applied to the cart will not receive a deduction.

The actual deductions occur only once the order is placed.

Orders paid with Gift Cards cannot be refunded. Credit Memos will not be available. To refund such an order, cancel it and manually increase the balance of the Gift Card, or the customer's Store Credit account, appropriately. If an order is partially paid with Gift Cards, the amount paid with Gift Cards cannot be refunded. Again, this amount should manually be added to the Gift Card or customer's account.

Redeeming Gift Cards

In addition to using a Gift Card balance during checkout, the balance can be transferred to a customer's Store Credit (if you have enabled this feature). More information about this is available in "Store Credit," page 194.

44 Reward Points and Loyalty Programs

The Magento Reward Points System enables an online merchant to implement unique programs designed to enhance user experience and increase customer loyalty. Points are awarded based on a wide range of transaction and customer activities, with the ability for the merchant to control point allotment, balance, and expiration. Customers can redeem points toward purchases, based on a conversion rate between points and currency that is set up by the merchant.

44.1 Configuring Reward Points

There are some configuration settings that must be completed relating to Reward Points.

To configure reward points:

1. Choose **System > Configuration** and select the **Reward Points** tab in the left column.

2. In the **Reward Points** section, the following options are available:

   ❖ **Enable Reward Points Functionality:** Select Yes in order to activate this feature.

   ❖ **Enable Reward Points Functionality on Front:** If this functionality is enabled, customers will be able to earn points through their activities, and redeem them during the checkout process. If disabled, only admin users will be able to assign and redeem points on behalf of customers.

   ❖ **Customers may see Reward Points History:** If enabled, customers will be able to see a detailed history of each accrual, redemption, and expiration of Reward Points in the My Account interface.

   ❖ **Min Reward Points Balance to be able to Redeem:** Requires customers to achieve a minimum point balance before they are able to redeem them on orders. If left blank, there will be no minimum limit.

   ❖ **Cap Reward Points Balance to:** Prevents customers from accruing more than this maximum points balance. If left blank, there will be no maximum limit.

   ❖ **Reward Points Expire (in days) :** Sets a limit in which customers must redeem Reward Points before they expire. Each batch of points which are earned during separate activities will have a separate expiration, and the expiration limit will display for each batch in the Reward Points history in the frontend (if enabled) and admin. If left blank, there will be no expiration limit.

   ❖ **Reward Points Expiry Calculation:** Selecting **Static** defines the date of expiration at the time when the points are earned based on the expiration limit defined above. If the expiration limit is changed, the expiration date for existing points will not change. Selecting **Dynamic** does not define a date of expiration. Instead, points will periodically be checked for expiration. This allows for the editing of the expiration limit to affect existing points.

   ❖ **Landing Page:** Defines the CMS page which will be used to display more information to customers about Reward Points. A default template for this CMS page is included, and links to this CMS page appear at various frontend locations where points can be earned.

In the **Acquiring Reward Points by Customers** section, the amount of Reward Points earned for various customer activities is defined. If points are assigned for any of these activities, a message will be displayed on the frontend in the corresponding section informing customers about the amount of points available for completing the action. Points earned for placing orders or qualifying for Shopping Cart Price Rules are not defined in this section, and will be discussed in more detail later in this chapter. The following options are available:

- ❖ **Registration:** Defines the amount of points earned when a customer registers.

- ❖ **Newsletter Signup:** Defines the amount of points earned when a customer signs up for the newsletter. This is not available for guests who sign up for the newsletter. Additionally, if a customer unsubscribes, and subscribes again, they will not receive points a second time.

- ❖ **Converting Invitation to Customer:** Defines the amount of points earned for the inviter when an invitation has been accepted by the invitee, resulting in the creation of a new customer account.

- ❖ **Invitation to Customer Conversion Qty Limit:** Limits the number of invitation conversions that can be used to earn points per inviter. If left blank, there will be no maximum limit.

- ❖ **Converting Invitation to Order:** Defines the amount of points earned for the inviter when an invitee has accepted the invitation and placed an initial order.

- ❖ **Invitation to Order Conversions Qty Limit:** Limits the number of order conversions that can be used to earn points per inviter. If left blank, there will be no maximum limit.

- ❖ **Invitation Conversion to Order Reward:** Indicates how often a customer can earn reward points when invitees make purchases.

  - o **First:** The customer will receive reward points only for the first invoiced order placed by the invitee-customer. Even if more than one invitee registered and placed orders, only the amount of the first order will be converted to reward points and granted to the customer.

  - o **Each:** The customer will receive reward points for each invoiced order placed by the invitee-customer. Reward points will be given according to the reward point exchange rates set for the required combination of a website and a customer group.

- ❖ **Review Submission:** Defines the amount of points earned when a review has been submitted and approved by an admin user.

- ❖ **Rewarded Reviews Submission Qty Limit:** Limits the number of reviews that can be used to earn points per customer. If left blank, there will be no maximum limit.

- ❖ **New Tag Submission:** Defines the amount of points earned when a tag has been submitted and approved by an admin user.

- ❖ **Rewarded Tag Submission Qty Limit:** Limits the number of tags that can be used to earn points per customer. If left blank, there will be no maximum limit.

In the **Email Notification Settings** section, there are two email notifications related to Reward Points which can be managed: balance updates and expiration notifications. The following options are available:

❖ **Email Sender:** Determines the sender of both the balance update and expiration notification emails.

❖ **Subscribe Customers by default:** Determines the default subscription status of customers for both balance update and expiration notifications emails.

❖ **Balance Update Email:** Determines the template of the email that customers receive when there is an update to their points balance.

❖ **Reward Points Expiry Warning Email:** Determines the template of the email that customers receive when the expiration warning limit has been reached for a batch of points.

❖ **Expiry Warning before (days) :** Defines the number of days prior to the expiration of point at which the expiration notification will be sent. If left blank, or if the warning limit is greater than the expiration limit (defined in the section above), no expiration notifications will be sent.

Reward Exchange Rates

Reward Exchange Rates determine the amount of points that are earned for orders placed based on the order amount, as well as the amount of monetary credit available when points are redeemed in an order. Different exchange rates can be applied to different websites and different customer groups.

To manage exchange rates:

1. Choose **Customers > Reward Exchange Rates**. This page contains a grid listing all existing exchange rates.

2. To create a new exchange rate, click **Add New Rate** in the top right of the page. If multiple exchange rates apply to the same customer due to an overlap of websites and/or customer groups, exchange rates will use the following priority:

   a. Specific website and specific customer group

   b. All Websites and specific customer group

   c. Specific website and All Customer Groups

   d. All Websites and All Customer Groups

   ❖ The **Direction** determines which type of transaction the exchange rate will define.

   ❖ **Points to Currency** defines the amount of points that can be redeemed for an amount of monetary credit towards an order.

   ❖ Enter the amount of points in the first **Rate** field, and the amount of monetary credit in the second Rate field. When converting points to currency, the amount of points cannot be divided. For example, if 10 points converts to $2.00, points must be redeemed in groups of ten. Therefore, 25 points would redeem for $4.00, with 5 points remaining in the customer's balance.

❖ **Currency to Points** defines the monetary amount of an order that will earn the customer an amount of points. Enter the monetary amount in the first Rate field, and the amount of credit in the second Rate field. When converting currency to points, the amount of points again cannot be divided, and any currency remainder will be rounded down. For example, if $2.00 converts to 10 points, points will be earned in groups of $2.00. Therefore, a $7.00 order would earn 30 points, and the remaining $1.00 would be rounded down. The monetary amount of the order is defined as the amount which the merchant receives, or the grand total minus shipping, tax, discounts, store credit, and gift cards. The points will be earned the moment when there are no non-invoiced items in the order (all items are either paid or canceled). If an admin user does not want to allow customers to earn Reward Points for canceled orders, those points can be manually deducted via the Manage Customers page. This will be discussed in more detail later in the chapter.

For either Direction, the monetary amount will equal the base currency of the website.

44.2 Rewarding and Redeeming Reward Points

Shopping Cart Price Rules

Points can be rewarded to customers who apply for Shopping Cart Price Rules. They can be rewarded as the only action of the price rule, or in conjunction with a discount. In order to add Reward Points to a price rule, navigate to **Promotions > Shopping Cart Price Rules** and select an existing price rule or click Add New Rule. Select the Actions tab in the left column, and enter the amount of points in the **Add Reward Points** field. When the price rule is activated, a message in the shopping cart will alert customers about the amount of points they can earn by placing the order.

Customer Balances

Reward Points balances can be managed by admin users per customer. To do so, navigate to **Customers > Manage Customers**, select a customer from the grid, and select the **Reward Points** tab in the left column. From this view, the admin user can view and edit (add to or subtract from) the customer's points balance per website, and edit the customer's email notification status. Additionally, this view includes a detailed history of each accrual, redemption, and expiration of points, including timestamp, exchange rate, and reason for balance change.

If enabled on the frontend, customers can also view the details of their points balance. In the My Account interface, there is a **Reward Points** tab. This tab contains information including the balance, current exchange rate, maximum and minimum limits, subscription status (with ability to edit), and (if enabled) balance history. There is also a link to the Rewards Points landing page.

Redeeming Points

Points can be redeemed by admin users and (if enabled) customers during the checkout process. In the Payment Method section, a **Use my Reward Points** check box will appear above the enabled payment methods. The available points and monetary exchange rate will be included. If the available balance is greater than the order grand total, no additional payment methods will be required. The amount of Reward Points applied to the order will display among the order totals, subtracting from the grand total, similar to Store Credit and Gift Cards. If Reward Points are used in conjunction with Store Credit and Gift Cards, Reward Points will be deducted first, and Store Credit or Gift Cards will only be deducted if the order total is greater than the redeemable amount of Reward Points.

Refunding to Reward Points

Orders placed with Reward Points can be refunded to the Reward Points balance up to the amount redeemed in the order. On the New Credit Memo page, there is a field in which the amount of points that will be applied to the customer's balance can be entered. By default, the value will be pre-populated with the full amount of points used in the order.

45 Private Sales

This chapter concludes the discussion of Private Sales functionality, which consists of the following:

❖ **Invitations:** Email messages sent out with a link to create an account in the store. If desired, the ability to create an account can be restricted to those who receive an invitation.

❖ **Events:** Sale restrictions based on a start and end date. Adding to cart will only be possible between these dates.

Related to Private Sales functionality are the following features, which are discussed in "Controlling Website Access," page 347:

❖ **Category Permissions:** Feature enabling the administrator to disable browsing, price displays, or adding to cart for different categories based on customer groups.

❖ **Website Restrictions:** Feature enabling the administrator to disable access to the website by redirecting to a landing page, login page or registration page.

45.1   Invitations

There are some configuration settings that must be completed to enable Invitations.

To enable and configure invitations:

1. Choose **System** > **Configuration** and select the **Invitations** tab in the left column.

❖ **Enable Invitations Functionality:** Determines whether the Invitations module is enabled.

❖ **Referred Customer Group:** Determines the customer group of the invitee. **Same as Inviter** means invitees will automatically have the same customer group as the customers who invited them**. System Configuration Default** means invitees will automatically have the customer group that is selected as the default. This setting can be changed by clicking on the **Customer Configuration** tab in the left column, selecting the **Create New Account Options** section, and editing the **Default Group** drop-down menu.

❖ **New Accounts Registration:** Determines whether the ability to create a new account is **By Invitation Only**, or **Available to All**. If you select the former, the new account registration section will not appear on the login page, and invitees must follow the link in the Invitation email in order to create an account.

❖ **Allow Customers to Add Custom Message to Invitation Email:** Determines whether there will be a field in the Invitation form in which the inviter can add a custom message which will be sent to the invitee via email. This does not affect the administrator's ability to add a message to an Invitation.

❖ **Max Invitations Allowed to be Sent at One Time:** Determines the maximum number of invitations that the inviter can send at once. A different invitation is sent out to each email address that the inviter includes in the form. This limit will help prevent inviters from bottlenecking your server by sending out large numbers of Invitations at once, and reduces the ability to use Invitations for spamming.

❖ **Customer Invitation Email Sender:** Determines the sender of the email that invitees receive when an Invitation email is sent.

❖ **Customer Invitation Email Template:** Determines the template of the email that invitees receive when an Invitation email is sent.

2. When you have completed these settings, click **Save Config** in the top right of the page.

Invitations Frontend

If enabled, customers can send and view Invitations from My Account. There will be a **My Invitations** tab in the left column. The page shows a list of all past Invitations sent, including the email address of the recipient, and the current status (**Sent**, **Accepted**, or **Canceled**). It also includes a **Send Invitations** button, which redirects to the Invitation form. This form contains a field for the email address of each recipient (the number of these fields is determined in the configuration above) and (if enabled) a message text area. When the **Send Invitations** button is clicked in the form page, the invitation email will be sent to the recipients. If a recipient email belongs to an existing customer in the system, the invitation email will not get sent to that email, and no record will be created in the admin. Customers can also send invitations using the **Send Invitations** link in the store header.

The invitation email includes a link to the customer account registration form on the Magento frontend. The customer email field will be auto-populated.

Invitations Backend

The admin has the ability to send and view Invitations as well. To do so, navigate to **Customers > Manage Invitations**. This page contains a grid listing all Invitations which have been sent. If one Invitation was sent to multiple recipients, a separate record will be created for each recipient.

To create a new Invitation, click **Add Invitations** in the top right of the page. Similar to the customer Invitation feature, there will be an email and message field. However, there is an unlimited number of recipient email addresses that can be entered into the email text area, and there will always be a message text area regardless of the configuration setting. In addition to these fields, you can select from which Store View the Customer Invitation email will be sent (and where the link in the email will redirect), and to which customer group the invitee will belong if they create an account (this supersedes the configuration setting). When you have completed the Invitation form, click **Save** in the top right of the page. The Customer Invitation email will be sent and you will be redirected to the Invitation grid.

To view past Invitations, click on a record in the grid. This page will show some basic information about the Invitation, such as the timestamp it was sent, the email address of the recipient, the current status (Sent, Accepted, or Canceled), the customer group of the invitee, and the link which was sent to the invitee. The message, if one was included, will be displayed in a text area, allowing you to edit the message, save it by clicking the **Save Invitation Message** button, and resend the Invitation by clicking the **Resend** button. To cancel the invitation, click the **Cancel** button. This will change the status to Canceled and the link in the email will no longer redirect to the customer account registration form.

If the invitee has created a customer account, the account details will be listed in this page (including a link to the customer account in the admin). If the inviter was a customer (the invitation was not sent by an administrator), the account details will be listed in this page as well (including a link to the customer account in the admin).

Lastly, the status history can be viewed by clicking the **Status History** tab in the left column. This will show the timestamp of each status change (Sent, Accepted, or Canceled).

Invitations Reports

You can view several reports about Invitations.

To view invitation reports:

1. Choose **Reports > Invitations**.

2. The following reports are available:

   ❖ **General:** This report summarizes Invitation information for the designated scope and period of time. The scope can be defined in the **Show Report for** drop-down at the top of the page. There will be one line for each **Period**. A Period can be a **Day**, **Month**, or **Year**, and is defined in the **Show by** drop-down at the top of the page. The number of Periods in the report depends on the date range designated at the top of the page. For each Period, you can see the total number of Invitations sent, accepted, and canceled, as well as the percentage of sent Invitations which have been accepted, and the percentage of sent Invitations which have been canceled.

   ❖ **Customers:** This report summarizes Invitation information by customer for the designated scope and period of time. The scope can be defined in the **Show Report for** drop-down at the top of the page. There will be one line for each **Period**. A Period can be a **Day**, **Month**, or **Year**, and is defined in the **Show by** drop-down at the top of the page. The number of Periods in the report depends on the date range designated at the top of the page. For each Period, you can see a list of all customers who have sent Invitations, including their ID, name, email, and customer group. Additionally, you can see the number of Invitations they have sent in that period, and the number of those Invitations which have been accepted.

   ❖ **Order Conversion Rate:** This report summarizes Invitation and sales information for the designated scope and period of time. The scope can be defined in the **Show Report for** drop-down at the top of the page. There will be one line for each **Period**. A Period can be a **Day**, **Month**, or **Year**, and is defined in the **Show by** drop-down at the top of the page. The number of Periods in the report depends on the date range designated at the top of the page. For each Period, you can see the number of Invitations which have been sent, the number of the those Invitations which have been accepted, the number customers who have completed an order after accepting an Invitation, and the percentage of Invitations sent which have led to a completed order.

45.2   Events

There are some configuration settings that must be completed relating to Events.

To enable and configure events:

1. Choose **System** > **Configuration**, click the **Catalog** tab in the left column.

2. In the **Catalog Events** panel, configure events by setting the following values:

    ❖ **Enable Catalog Events Functionality:** Determines whether the Events module is enabled.

    ❖ **Enable Catalog Event Widget:** Determines if the Event Widget is displayed in the frontend. This is a static block containing information about Events in your site. Sometimes this feature is referred to as Lister Block. There is more information about the Event Widget below.

    ❖ **Number of Events to be Displayed on Category:** Determines the number of Events that will display in the Event Widget on the category pages.

    ❖ **Number of Events to be Displayed on CMS Pages:** Determines the number of Events that will display in the Event Widget on CMS pages, such as the home page.

3. When you have completed these settings, click **Save Config** in the top right of the page.

Events Backend

Events can be created and viewed by navigating to **Catalog > Categories> Catalog Events**. This page contains a grid listing all Events that you have created. To create a new Event, click **Add Catalog Event** in the top right of the page. You will need to first select the category for which the Event will be created. Click on the desired category from the category tree. Only one event can exist for a given category at one time, so any categories that already have an associated Event will be disabled in the category tree. When you click on a valid category, you will be redirected to the next page. This page contains fields for the start and end date of the event, the image which will be displayed in the Event Widget, the sort order in the Event Widget, and check boxes for displaying a countdown ticker block on the category page and/or product page (of products associated to the given category). This page also displays the category for which you are creating the Event, which will link back to the previous step if clicked (so you can select a different category). When you have completed the Event settings, click **Save** in the top right of the page. You will be redirected to the Event grid.

To edit an existing Event, select it from the Event grid. This page is similar to creating a new Event. One difference is that the category link will no longer link back to the category tree to allow you to select a different category. Instead, it will link to the **Catalog** > **Manage Categories** page for that category. Another difference is that the **Status** of the Event will display. This status is solely dependent upon the start and end date of the Event. Future Events are **Upcoming**, current Events are **Open**, and past Events are **Closed**.

In **Catalog** > **Manage Categories**, there will be a link to the Events page. This link is a button which will only display for existing categories, so it will not display when creating a new category. If the category already has an associated Event, the button will say **Edit Catalog Event** and will link to the edit page of the given event. If the category does not yet have an associated Event, the button will say **Add Catalog Event** and will link to the second step of the "create new event" process (with the given category pre-populated).

Events Frontend

If the Event Widget is enabled, it will display on the home page and on category pages. It will display Open Events first, sorted by end date. If two or more Events share the same end date, sorting will be based upon the sort order entered in the steps above. Open Events include a countdown ticker. After all Open Events, the widget will display Upcoming Events, sorted by start date, then sort order. Upcoming Events include the start and end date.

If the Category Page ticker has been enabled for a given event, the ticker block will display at the top of the product listing page. If the Product Page ticker has been enabled, the ticker block will display at the top of the product view page (of products associated to the given category). Like the Event Widget, the ticker block displays a countdown ticker for open events and the start and end date for upcoming events. If an event is closed, the ticker block will indicate this (and includes the start and end date, similar to Upcoming events). By default, products in upcoming or closed events are not sellable. The **Add to Cart** button will not display in the product listing page or the product view page. To restore the **Add to Cart** button for a closed event, the event must be deleted. However, if a product is associated to another category, which has no selling restrictions, then the **Add to Cart** button will appear in the product view page. Similarly, the ticker block will not display in the product view page if that product is associated to another category which has no selling restrictions.

45.3   Category Permissions and Website Restrictions

Category Permissions can be used in conjunction with invitations and events to create private sales. Website Restrictions can be used in conjunction with Invitations and Events to create Private Sales.

To learn more about these features, see "Controlling Website Access," page 347.

46 Gift Registries

This chapter introduces Magento Enterprise Edition's Gift Registry functionality. Enterprise Edition's gift registries enable your registered customers to create a gift registry for a special occasion and to notify friends and family of the registry. Friends and family can purchase items from the gift registry and Magento keeps track of the items bought and quantities remaining.

The store administrator can also perform basic operations such as viewing or sharing customers' gift registries, adding items from the customer's shopping cart to one of the registries created by the customer, updating gift registry item quantity, or deleting a customer's gift registry. In the frontend, after a customer creates a gift registry, items can be added to it either from the customer's shopping cart or from the Wishlist, and then the gift registry list can be shared with others. A gift registry recipient can in turn open a gift registry by either following the emailed link or searching for it by the gift registry owner's name, email, or gift registry ID. Gift registry recipients who want to purchase a product from the gift registry can add an item from the gift registry list directly to their shopping cart. When an order is placed for gift registry items and the gift registry is updated to reflect the quantity of items fulfilled. See Figure 287.

Store Admin
- Enables gift registry functionality
- Creates registry types and attributes

Customer/Gift registry owner
- Creates gift registry for an upcoming occasion
- Adds items to their gift registry
- Shares gift registry with friends and family

Gift registry recipient
- Receives email notification
- Goes to gift registry (by link from email or registry search on site)
- Places an order for an item on the registry

Magento
- Updates gift registry item counts
- Notifies gift registry owner

Figure 287. General Gift Registry Work Flow

Chapter Quick Reference

The table below lists some of the most common tasks for using EE's gift registry functionality and where to go in the Admin Panel to perform them. The sections that follow provide step-by-step instructions on each.

TASK	ADMIN MENU
To enable gift registries	System > Configuration > Gift Registry tab General Options tab
To configure gift registry notification emails	System > Configuration > Gift Registry tab
To customize gift registry notification emails	System > Transactional Email
To customize gift registry types available	Customers > Gift Registry
To add a gift registry search widget to the website	CMS > Widgets
To view a customer's gift registry	Customers > Manage Customers Gift Registry tab
To manage items in a customer's gift registry	Customers > Manage Customers Gift Registry tab
To share a customer's gift registry	Customers > Manage Customers Gift Registry tab
To delete a customer's gift registry	Customers > Manage Customers Gift Registry tab

46.1 Administering Gift Registries

Before customers can start using the Gift Registry module, the store administrator needs to complete some general setup. This section describes the setup to be done in the Magento backend. This includes enabling the module itself, setting the gift registry notification process, and creating gift registry types and attributes.

Enabling and Configuring Gift Registries

To enable gift registries:

1. Choose System> Configuration. Select the Gift Registry tab on the left.

2. In the General Options panel, enable gift registries by setting the following values:

   ❖ **Enable Gift Registry:** Determines if gift registries are available on your Magento stores.

   o **Yes:** Enables the gift registry functionality for the selected store view and customers registered for the selected store view are provided with a Gift Registry tab on their account page after the gift registry configuration settings are saved in the backend.

   o **No:** Gift registries are not available on the frontend website.

❖ **Max Recipients Limit:** Set the number of recipients that a customer creating a gift registry can add to her or his gift registry. A recipient is the person who the gift registry owner shares his or her gift registry list with. In the frontend, when a customer creates a gift registry, the Add Recipient button is available as long as the number of recipients added does not exceed the value specified in the Max Recipients Limit field.

3. Click the [✔Save Config] button to save your settings.

After the store administrator enables the module in the backend configuration, a warning message appears, stating that one or more cache types are invalidated. The store administrator needs to follow the link from the message or click **System > Cache Management** on the Magento top menu, select the check box for the invalidated cache type, and click the **Submit** button. After the cache is refreshed, the **Gift Registry** submenu appears under the **Customers** menu in the backend.

After the Gift Registry functionality is enabled, the **Gift Registry** tab becomes available for customers in the **My Account** menu on the customer's page in the frontend.

When it is required, the Gift Registry functionality can be disabled by setting the **Enable Gift Registry** field to **No** (**System > Configuration > CUSTOMERS > Gift Registry > General Options**). However, note that the Gift Registry submenu will disappear from the **Customers** menu in the backend only after the cache is again refreshed.

To configure gift registry email notifications:

As part of the gift registry functionality, Magento will send email notifications in response to several events in the gift registry work flow. Magento sends the following gift registry-related emails:

❖ To the gift registry owner upon successful creation of the gift registry. Email contains a link to the newly created gift registry that can be shared with friends and family

❖ Optionally, if the gift registry owner wishes to send notifications from the store, to the friends and family (gift registry recipients) of the gift registry owner. Email contains a link to the gift registry.

❖ To the gift registry owner when updates are made to the gift registry. Email indicates that items have been purchased but does not specify by whom.

Magento has pre-defined templates for each of these emails that can be modified and customized by the store administrator in the same way all other email templates can be in Magento in **System > Transactional Emails**.

1. Choose **System > Configuration**. Select the **Gift Registry** tab on the left.

2. In the **Owner Notification** panel, configure the emails that will sent to gift registry owners notifying them that their gift registry has been created by setting the following values:

❖ **Email Template** – Select the Gift Registry Owner Notification template to use to notify the gift registry owner that the gift registry has been successfully created. Figure 288 shows an example of the default template.

Figure 288. Default Gift Registry Owner Notification Template

❖ **Email Sender:** Specify an email sender from whom a gift registry owner will be sent an email notifying him/her that their new gift registry was created.

3. In the **Gift Registry Sharing** panel, configure the emails that will sent to notify gift registry recipients that a gift registry has been shared with them by setting the following values:

❖ **Email Template:** Select the Gift Registry Sharing template to use to notify recipients specified by the gift registry owner that their gift registry has been shared. After a gift registry owner adds gift registry recipients and clicks the **Share Gift Registry** button on the Share Gift Registry page, each recipient from the list receives an email. Figure 289 shows an example of the default template:
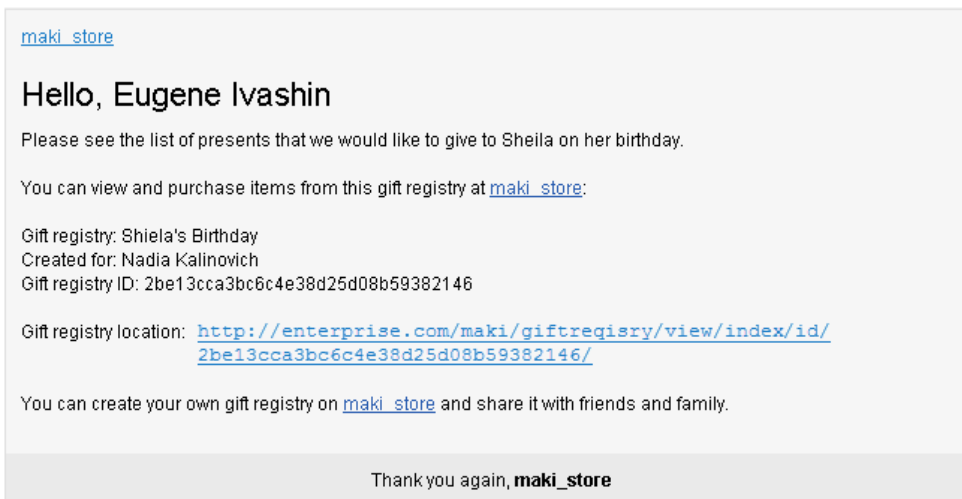
Figure 289. Default Gift Registry Sharing Template

❖ **Email Sender:** Specify an email sender from whom a gift registry recipient will be sent an email notifying him/her that a gift registry has been shared with them.

❖ **Max Emails Allowed to be Sent at One Time:** Set the maximum number of email notification letters to be sent to recipients with whom a gift registry owner can share his or her gift registry.

4. In the **Gift Registry Update** panel, configure the emails that will sent to notify the gift registry owner of changes to the gift registry by setting the following values:

❖ **Email Template:** Select the Gift Registry Update template to use to notify the gift registry owner that their gift registry has been updated (when items are purchased). When any of the gift registry recipients places an order for an item from the gift registry, the gift registry owner receives an update email letter containing the information about the gift registry item and its quantity ordered. In this case, the gift registry owner does not know the name of the person who has placed an order. Figure 290 shows an example of the default template:
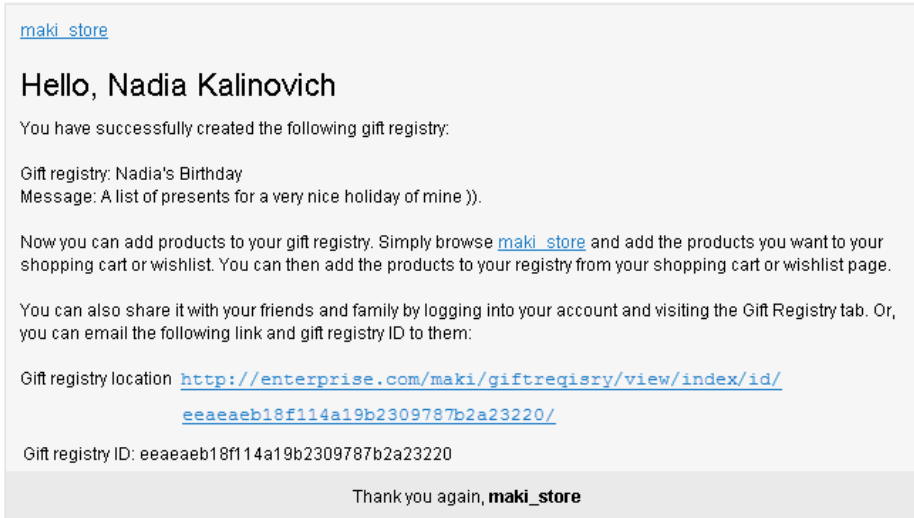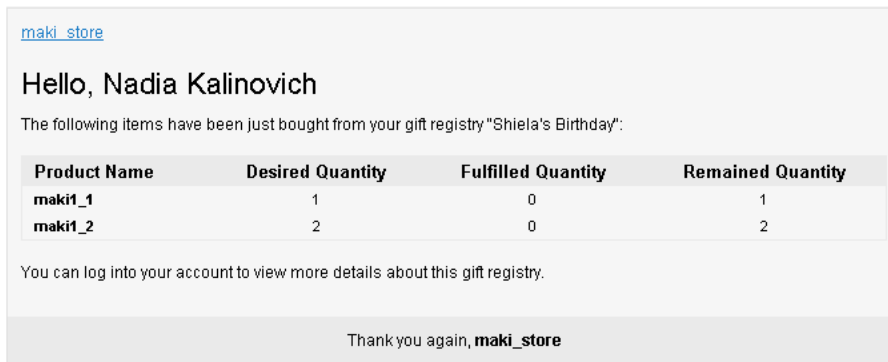

Figure 290. Default Gift Registry Update Template

❖ **Email Sender:** Specify an email sender from whom a gift registry recipient will be sent an email notifying him/her that a gift registry has been shared with them.

5. Click the [✔Save Config] button to save your settings.

Customizing Gift Registry Types

After the Gift Registry configuration is complete, the administrator needs to create gift registry types and attributes in the backend. Gift registry types denote special events that the gift registry can be created for. These can be a wedding, a birthday, an anniversary, a child birth, or any other special occasion. By default, Magento provides gift registry types for the following special events:

❖ Baby Registry

❖ Birthday

❖ Wedding

With the pre-defined gift registry types, Magento provides a number of pre-defined attributes/fields. The store administrator can choose to modify or delete some of them or to add a number of new attributes and attribute options. A gift registry attribute provides additional information about the gift registry owner, the event, its time and place, or any other gift registry-specific information. When the customer is creating a new gift registry on the frontend, these attribute fields will be presented to him/her to fill in while creating the registry.

To create or modify gift registry types:

1. Choose **Customers > Gift Registry**. A list of available gift registry types is displayed.

2. Click the **[+Add Gift Registry Type]** button to create a new gift registry type, or click on one of the currently available gift registry types to edit it.

3. In the **General Information** panel, configure the gift registry type by setting the following values:

   ❖ **Code:** Specify the name for the gift registry type that will be used in the system. This must be unique and can contain only letters, numbers and underscores.

   ❖ **Label:** Specify the name for the gift registry type that will be displayed on the frontend.

   ❖ **Sort Order:** Assigns to a gift registry type the order in which it will appear on the Create Gift Registry page on the frontend.

   ❖ **Is Listed:** Determines if a gift registry type is available (is listed) on the frontend.

4. Click the **Attributes** tab

5. Click the **[+Add Attibute]** button to create a new attribute, or click on one of the currently available attributes to edit it.

6. In the **Attributes** tab, create or modify attributes by setting the following values:

   ❖ **Code:** Specify the name for the attribute that will be used in the system. This must be unique and can contain only letters, numbers and underscores.

   ❖ **Input Type:** define the type of input allowed for a gift registry attribute. A gift registry attribute can have a number of options. For example, for a gift registry type Wedding, the administrator can create the gift registry attribute **Role** and add two attribute options, **Bride** and **Groom**. When creating a gift registry of a specific gift registry type, in the frontend the customer will make a choice from the attribute options depending on the value that the store administrator has specified in the **Input Type** field for a specific gift registry attribute option. The store administrator can choose among the following pre-defined custom and static input types in this field:

   o Text

   o Select: For "Select" input types, use the **[+Add Option]** button to create the drop-down menu of options

   o Date

   o Country

   o Event Date: For Event Date input types, the **Is Searchable**, **Is Listed**, and **Date Format** fields appear. The **Is Listed** field specifies whether there will be a column of values of this attribute in the grid of gift registries in the frontend. The **Is Searchable** field specifies whether the gift registry attribute is available in the gift registry advanced search. In the frontend, such attribute is displayed under the Type Specific Options group.

   o Event Country: For Country or Event Country input types, the **Show Region** field appears. Indicate whether the list of countries or regions related to the country selected by the customer will be available for selection in the frontend.

   o Event Location

o   Role

❖ **Attribute Group:** Select the information group that the attribute will appear in on the frontend. On the frontend, when a customer creates a gift registry, related gift registry attributes appear under any of the following attribute groups selected by the store administrator:

o   Event Information: Groups all gift registry attributes that add the information about the gift registry event, its time, place, etc.

o   Gift Registry Properties: Combines all attributes that add information directly about the gift registry.

o   Privacy Settings: Lists the attributes that add information about the gift registry event privacy.

o   Recipients Information: Groups the attributes that provide information about the person who creates a gift registry.

Figure 291. Create Gift Registry Page

❖ **Label:** Specify the attribute name that will be displayed to the customer on the Create Gift Registry page in the frontend.

❖ **Is Required:** Choose whether the attribute with custom options, if there are any, is required to be specified by the customer in the frontend. The customer will not be able to save a gift registry if the attribute set to be a required one is not specified on the Create Gift Registry page.

❖ **Sort Order:** Define the order of the gift registry attribute to be displayed to the customer on the Create Gift Registry page in the frontend. This parameter is relevant when there is more than one attribute created for a gift registry type.

7. Click the [✔Save] button to save your attribute.

Adding a Gift Registry Search Widget to the Frontend

Magento users can search for an existing gift registry in a web store. This functionality becomes available if the store administrator creates a widget, which adds a Gift Registry Search section in the specified place of the web store page.

In the frontend, the customer searching for a gift registry can select the search type in the Search By field. Depending on her or his choice, a number of fields to be filled out appear. These are gift registry owner first and last names, email, the type of gift registry, or the gift registry ID. After clicking the **Search** button, the customer is provided with the search results on the Gift Registry Search page. If the search returns no results, the customer can try searching again by using the search options on the page.

To add a gift registry search widget to your store:

1. To create the widget instance, choose **CMS > Widgets**.

2. Click the [**+Add New Widget Instance**] button.

3. In the **Settings** panel, create the widget by setting the following values:

   ❖ **Type:** Select "Gift Registry Search" from the drop down.

   ❖ **Design Package/Theme:** Select the theme being used by the store you wish this widget to show up on.

4. Click the [**✔Continue**] button.

5. In the **Frontend Properties** panel, enter the remainder of the basic widget info:

   ❖ **Widget Instance Title:** Name for this widget

   ❖ **Sort Order:** Order in which widget should appear, relative to other elements in the block in which it appears.

6. In the **Layout Updates** panel, specify the pages and block in which the gift registry search widget should appear by setting the following values:

   ❖ **Display On:** Indicate the specific pages or the types of pages on which the gift registry search widget should appear.

   ❖ **Block Reference:** Indicate the blocks in your template in which the widget should appear. Depending on the template, options my vary, but are typically Left Column and Right Column.

7. Click the **Widget Options** tab.

8. In the **Widget Options** panel, specify the ways in which visitors to your website can search for gift registries.

   ❖ Quick Search Form Types include:

      o **Recipient Name Search**
      o **Recipient Email Search**
      o **Gift Registry ID Search**

9. Click the [**✔Save**] button to save your widget.

10. Refresh the Magento page cache if necessary to see the widget appear on the frontend.

46.2   Managing Gift Registries

After the Gift Registry module is enabled and set up and all required gift registry types and attributes are created, the store administrator can manage gift registry records by monitoring them, making some changes to them, sharing gift registries, or delete them on gift registry owners' request.

To view a customer's gift registry:

1. Choose **Customers > Manage Customers**.

2. Click on the customer whose gift registry you'd like to view.

3. Click on the **Gift Registry** tab. You will see all of the gift registries created by that customer.

4. Click on the desired gift registry.

To manage items in a customer's gift registry:

If desired, you can add items in the customer's shopping cart to a customer's gift registry from the Admin Panel. You can also change quantities and delete items.

1. Choose **Customers > Manage Customers**.

2. Click on the customer whose gift registry you'd like to view.

3. Click on the **Gift Registry** tab. You will see all of the gift registries created by that customer.

4. Click on the desired gift registry.

5. To add items from the customer's shopping cart to their gift registry:

6. In the **Shopping Cart Items** section, locate the item to add to the gift registry and check the check box.

7. From the **Actions** drop-down menu, select "**Add to Gift Registry**" and click the [**Submit**] button.

8. To change quantities in the gift registry:

9. Enter the new quantity in the **Gift Registry Items** section and click the [**Update Items and Qtys**] button

10. To delete an item, set its quantity to "0" or select "**Remove Item**" from the **Actions** drop-down menu for that item.

To share a customer's gift registry:

If desired, you can add items in the customer's shopping cart to a customer's gift registry from the Admin Panel. You can also change quantities and delete items.

1. Choose **Customers > Manage Customers**.

2. Click on the customer whose gift registry you'd like to view.

3. Click on the **Gift Registry** tab. You will see all of the gift registries created by that customer.

4. Click on the desired gift registry.

5. In the **Sharing Information** area provide the following information:

   o **Emails:** Enter the email addresses provided by the gift registry owner. Multiple email addresses must be separated with a comma.

   o **Send From:** Select the store view from which the gift registry recipients will receive an email letter with a URL link to the customer's gift registry.

   o **Message:** If desired, type a message that a gift registry recipient will see in the received email letter

6. Click the [**Share Gift Registry**] button.

Upon sharing a gift registry list, gift registry recipients whose email addresses are specified in the Emails field will receive an email notification with a link to customer's gift registry item list and to the store where the recipients can purchase the items from the gift registry list.

To delete a customer's gift registry:

1. Choose **Customers > Manage Customers**.

2. Click on the customer whose gift registry you'd like to view.

3. Click on the **Gift Registry** tab. You will see all of the gift registries created by that customer.

4. Click on the desired gift registry.

Click the [**x Delete Registry**] button to permanently delete the gift registry. Note that this operation cannot be reversed.

47 Gift Wrapping

In Magento Enterprise Edition, store customers can select a gift message and/or gift wrapping for the entire order, as well as for separate order items, and a printed card, such as a picture post card, to the order. You can process the gift wrapping and printed card, and charge customers for them, as well as add gift messages, gift wrapping, and a gift card in orders that are created from the Admin Panel.

This feature was introduced in Version 1.10 of Magento Enterprise Edition.

47.1   Enabling and Configuring Gift Options: Global or Website Level

To enable and configure the gift wrapping and gift messages features:

1. In the Magento top menu, select **System > Configuration**.

2. Under SALES in the left column, click **Sales**. The configuration can be done either at the global or website level, so in the **Current Configuration Scope** drop-down menu leave the **Default Config** or select the desired website.

3. Expand the **Gift Options** fields set. Here you can set the following options:

   ❖ **Allow Gift Messages on Order Level:** Specify whether a gift message can be added for the entire order.

   ❖ **Allow Gift Messages on Order Items:** Specify whether a gift message can be added for an individual order item.

   ❖ **Allow Gift Wrapping on Order Level:** Specify whether gift wrapping can be selected for the entire order.

   ❖ **Allow Gift Wrapping on Order Items:** Specify whether gift wrapping can be selected for an individual order item.

   ❖ **Allow Gift Receipt:** Specify whether a person creating the order can choose to send a gift receipt (that is, a shipping document where the prices and totals are not shown) instead of the general shipping document.

   ❖ **Allow Printed Card:** Specify whether a printed card can be added to the order.

   ❖ **Default Price for Printed Card –** The default price for the card (it is displayed when the card is selected during the order creation).

When the gift wrapping functionality is enabled, the gift wrapping-related settings on the product level in the Admin Panel become available.

Gift Options Settings at the Product Level

The global gift wrapping and gift messages settings can be overridden at the product level. The corresponding settings for a product are accessible on the **Gift Options** field set of the Product Information page, when the product is created or edited. See Figure 292.

Figure 292. Gift Options Settings at the Product Level

The following settings for gift options are available at the product level:

❖ **Allow Gift Message:** Specify whether a gift message can be added for this product. If the **Use Config Settings** check box is selected, the system configuration settings are applied.

❖ **Allow Gift Wrapping:** Specify whether gift wrapping can be added for this product. If the **Use Config Settings** check box is selected, the system configuration settings are applied.

❖ **Price for Gift Wrapping:** Specify the price for gift wrapping for this product. If the **Use Config Settings** check box is selected the default gift wrapping price is applied.

Tax Classes for Gift Options

Because you can charge customers for gift wrapping and printed cards, you can also specify a tax class for these items, at either global or website level in **System** > **Configuration** > SALES > **Tax** > **Tax Classes**. Select the applicable tax class in the **Tax Class for Gift Option** drop-down field. It contains all product tax classes that are defined in your Magento system.

Note: *Product tax classes can be created and managed in* **Sales** > **Tax** > **Product Tax Classes**.

The way prices for the gift wrapping and the printed card are displayed in different locations can be set in **System** > **Configuration** > SALES > **Tax** in the **Shopping Card Display Settings** and the **Orders, Invoices, Credit memos Display Settings** field sets. The available options are **Excluding Tax**, **Including Tax**, and **Excluding and Including Tax**. *S*ee Figure 293.
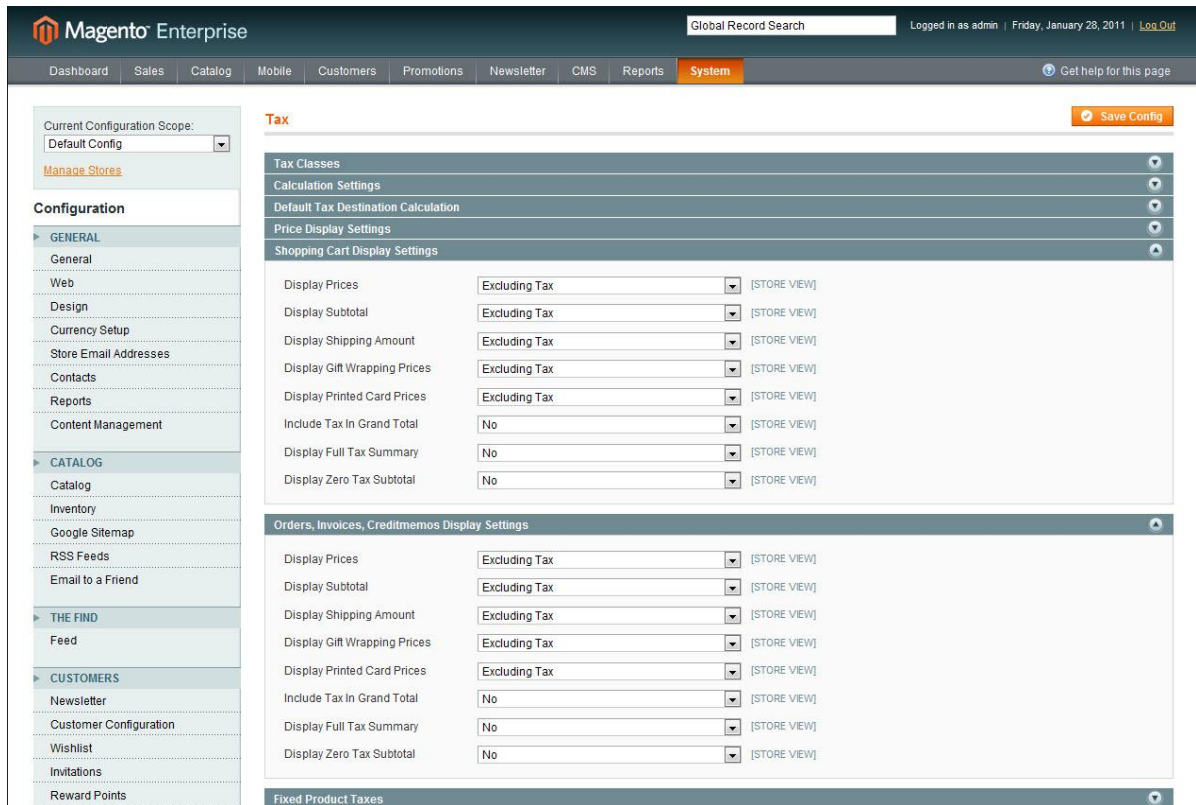
Figure 293. Gift Wrapping and Printed Card Prices Display Options

Managing Gift Wrapping Designs in the Admin Panel

To access the list of gift wrapping options, select **Sales** > **Gift Wrapping**. To edit an existing gift wrapping option, click it, or click the corresponding **Edit** link in the **Action** column. See Figure 294.

Figure 294. List of Existing Gift Wrapping Options in the Admin Panel

To add a new gift wrapping option:

1. Click the **Add Gift Wrapping** button in the upper-right corner of the **Manage Gift Wrapping** page. The **New Gift Wrapping** page opens.

2. Specify the following:

❖ **Gift Wrapping Design:** The name of the gift wrapping as store customers will see it. It can be different for each store view. To specify the name for a particular store view you must save the newly created gift wrapping, and then reopen it for editing, or use the **Save and Continue Edit** button.

❖ **Websites:** Select the website where the new gift wrapping will be available.

❖ **Status:** Determines whether the gift wrapping is enabled (that is, available in the list of the gift wrapping options in the order creation) or disabled.

❖ **Price:** Specify the price of the gift wrapping option. This setting is overridden by the gift wrapping price setting at the product level.

Note: *The base currency is set at the global level in* **System** *>* **Configuration** *>* *GENERAL >* **Currency Setup***.*

❖ **Image:** An image, illustrating the gift wrapping, can be downloaded. The customer can view its preview when adding gift wrapping during the order creation. It is an optional field.
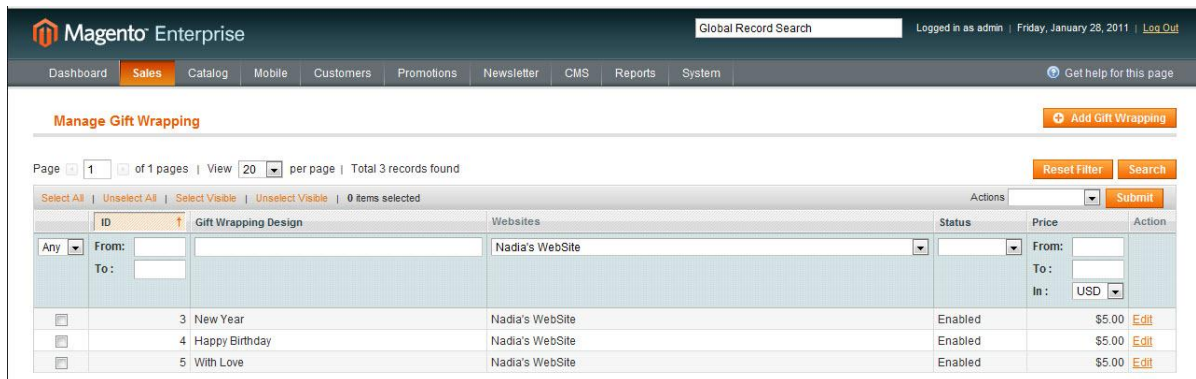
3. Click **Save** in the upper-right corner of the page.

To delete a gift wrapping option:

1. On the **Manage Gift Wrapping** page in the first column of the grid, select the check box corresponding to this gift wrapping.

2. Choose **Delete** in the **Actions** drop-down menu in the heading of the grid.

3. Click the **Submit** button.

Or

1. Open the gift wrapping option for editing.

2. Click the **Delete** button.

Gift Options: Customer Experience

If gift messages and/or gift wrapping are enabled, then in the Shipping Method step of the one-page checkout the customer is presented with gift options.

If the customer chooses to add gift options, two groups of check boxes appear: **Gift Options for Entire Order** and **Gift Options for Individual Items**. Also, the **Send Gift Receipt** and the **Add Printed Card** check boxes become available below, if the corresponding settings in the Admin Panel are configured to allow them. See Figure 295.

Figure 295. Adding Gift Options to the Order in the Frontend

When the customer selects the **Gift Options for the Entire Order** check box, the **Gift Wrapping Design** drop-down menu and the **Gift Message** link appear below. The customer can select a gift wrapping design and write a gift message for the entire order. After the gift wrapping design is selected, its price and an image preview, if available, are displayed.

> *Note:* *Gift wrapping is not available for downloadable and virtual products, so the **Gift Wrapping Design** drop-down menu does not appear for products of these types and for orders, which contain only products of these types.*

When the customer selects the **Gift Options for Individual Items** check box, the list of product names with the **Gift Wrapping Design** drop-down menus, and the **Gift Message** links, appear for each product. They are similar to these fields for the entire order. See Figure 296.

Figure 296. Adding Gift Options for the Entire Order and Separate Order Items

*Note: If you do not create and enable gift wrapping, the **Gift Wrapping Design** drop-down menu does not appear.*

If the customer selects the **Add Printed Card** check box, the card price is displayed below.

Prices for the selected gift wrapping options and the printed card are represented as individual lines in order totals in the **Order Review** checkout step.

Gift Options in Orders Created from the Admin Panel

Gift options are available for orders that are created from the Admin Panel. To access the order management section, select **Sales** > **Orders**.

When creating the order, the gift options for each order item can be added using the **Gift Options** link displayed under product name in the Items Ordered block. See Figure 297.
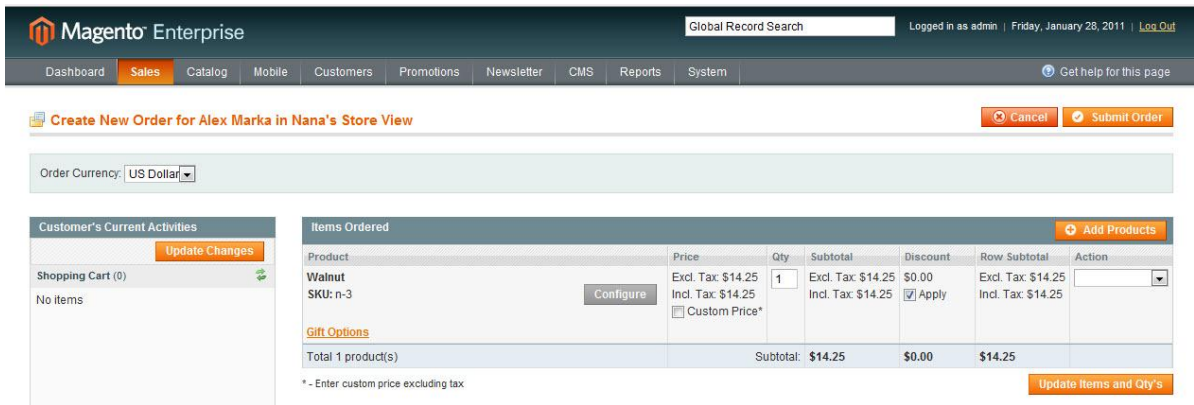
Figure 297. Gift Options for Order Items in the New Order in the Backend

When you click the link, a pop-up window opens, where gift wrapping and/or a gift message can be added. If gift wrapping is selected for a product, its price is displayed under the product name.

Gift options for the entire order are available in the Gift Options block of the **Create New Order** page. See Figure 298.
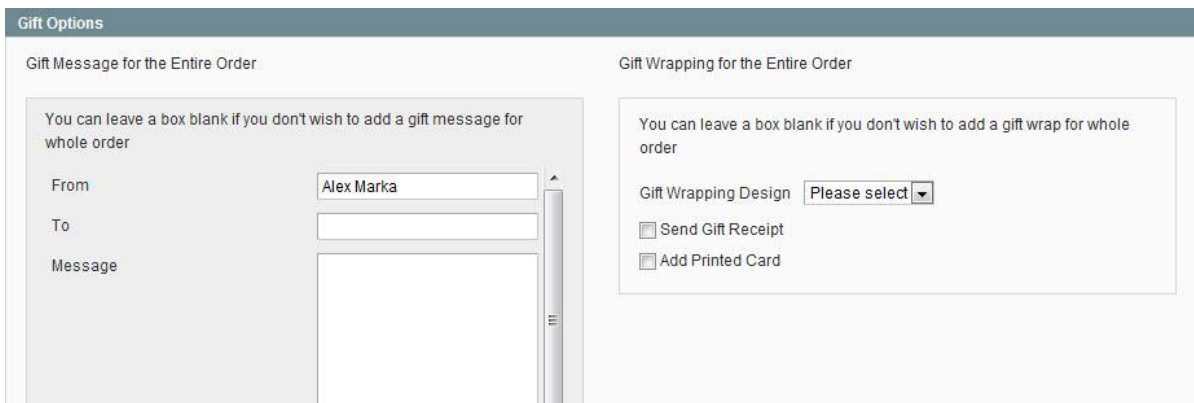
Figure 298. Gift Options for the Entire Order in the New Order in the Backend

The gift wrapping and the printed card prices for the order and separate items are represented as individual lines in the order totals.

> **Note:** *When a new order is created using the reordering functionality, the gift options of the original order are not preserved.*

Gift Wrapping and Gift Card Refund

When you create a credit memo that is not for the entire order, the refund for the gift wrapping and/or the gift card is included to the first credit memo that is created for the order.

To exclude these costs from the amount to be refunded, the total of these costs should be specified in the **Adjustment Fee** field located above the Grand Total value in the credit memo. See Figure 299.

Figure 299. Adjusting the Refund Total When Creating the Credit Memo

Gift Wrapping and Gift Message Modules

The **Gift Wrapping** module is connected with the **Gift Message** module. If the **Gift Message** module is disabled, then the **Gift Wrapping** module is disabled too. This means the **Gift Options** tab will be missing on the product page and the order page, and the **Gift Wrapping** page will not be available in Sales Management. The **Add Gift Options** check box will not be available on the **Shipping Method** checkout step in the frontend. To access the module management section, navigate to **System** > **Configuration** > ADVANCED > **Advanced**.

48 Custom Order Status Values

In Magento Enterprise Edition you can create custom order status values, assign them to order states, and set default statuses for order states.

Order *state* is the state of an order in the order processing workflow. The predefined order states in Magento are New, Pending Payment, Processing, Complete, Closed, Cancelled, On Hold, and Payment Review. Order states are not visible in the user interface, except the order statuses management section.

Order *status* is the status of an order in a specific step of the order state processing workflow. The predefined order statuses in Magento are: Cancelled, Cancelled Ogone, Closed, Complete, Declined Ogone, Suspected Fraud, On Hold, Payment Review, Pending, Pending Amazon Simple Pay, Pending Ogone, Pending Payment, Pending PayPal, Processed Ogone Payment, Processing, Processing Ogone Payment, Waiting.

A default order status for a state is a status that an order receives when it enters the state.

48.1 Managing Order Status Values

To access the list of order status values that are defined for your Magento system, in the Magento top menu select **System > Order Statuses** to open the Order Statuses page (see Figure 300).

Figure 300. Order Statuses List

To create a new order status value:

1. Click the **Create New Status** button in the upper right corner of the **Order Statuses** page. For a new order status you specify the following:

   ❖ **Status Code:** For system internal use.

   ❖ **Status Label:** The label of the status, as it is shown in the Admin Panel and frontend.

   ❖ **Store View Specific Labels:** You can specify an alternative status label for each store view available in the system.

417

2. Click the **Save Status** button the upper-right corner of the **New Order Status** page.

To assign an order status value or set it as the default for an order state:

1. Click the **Assign Order Status to State** button in the upper-right corner of the page. The **Assign Order Status to State** page opens, where you specify following fields:

   ❖ **Order Status:** Select the order status value that you want to assign.

   ❖ **Order State:** Select the order state, to which the status value is assigned.

   ❖ **Use Order Status As Default**: Select this check box if you want the specified status value to be the default for the selected state.

2. To save the assignment, click the **Save Status Assignment** button in the upper-right corner of the **Assign Order Status to State** page.

> *Note*: *Currently only default custom order status values are applied in the order management workflow. The custom status values that are not set as default are available only in the comments section in the order view in the Admin Panel. See Figure 301.*

Figure 301. Non-default Custom Order Status in Comments

To cancel the assignment of the order status value, click the **Unassign** link in the Action column for the desired order status in the list on the **Order Statuses** page.

To edit the existing order status, click the corresponding row in the list of order statuses. The **Edit Order Status** page opens, where the status labels can be changed.

Order status values cannot be deleted.

49 Editing Orders in the Admin Panel

In Magento Community Edition, when you edit an existing order, the original order is canceled and a new one is created. In Magento Enterprise Edition, you have the option to change the billing and shipping addresses of the existing order, without creating a new order. See Figure 302.

This feature was introduced in Version 1.10 of Magento Enterprise Edition.

Figure 302. Edit Links for the Billing/Shipping Address in the Admin Order View

> **Note:** *When using the order editing functionality, changing the billing and shipping addresses does not influence the totals calculation.*

To edit the billing or shipping address in an existing order:

1. In the Magento top menu, select **Sales > Orders**.

2. Open the desired order for editing, and click the **Edit** link in the Billing Address section or the Shipping Address section (see Figure 302). A page for editing the address opens.

3. Make the necessary changes and click the **Save Order Address** button in the upper right corner of the page.

When making any other changes to an order (by clicking the **Edit** button in the order view page), the original order is canceled and a new one is created.

50 Assisted Shopping

Magento Enterprise Edition's assisted shopping feature enables merchants and their customer service representatives to better manage a customer's shopping cart from the Admin Panel. Customer Service reps can see the contents of a customer's shopping cart while they are on the phone with that customer and they can easily move items from the wishlist or recently viewed items list to the shopping cart—all without having to create an order. They can also apply a coupon code to a cart from the backend.

To use the assisted shopping feature:

In order to use the assisted shopping feature on the backend, the customer must login or create an account so that their cart, wishlist and browsing history will be visible on the backend. To see and manage that customer's cart:

1. Choose **Customers > Manage Customers**.

2. Select a customer to edit from the list and then select the **Shopping Cart** tab on the left.

3. Click the [**Manage Shopping Cart**] to go into the Assisted Shopping mode.

4. You will be able to see the customer's shopping cart, apply a coupon code, as well as be able to see: all products, customer's wishlist, customer's comparison list, recently compared products, recently viewed products, and customer's last ordered products. Any of these products can be easily seen and added to the customer's shopping cart using the [**+Add Selected Products to the Shopping Cart**] button. As soon as they are added to the cart this way, the customer should also be able to see those items in his/her cart on the frontend simply by refreshing the page.

5. The customer can then continue browsing, checkout unassisted, or the customer service representative can create the order by clicking the [✔**Create Order**] button and proceeding to place the order for the customer.

   Note: *The customer service rep can remove items from the cart by setting the quantity to 0 and updating the cart. But the customer service rep cannot move items from the cart to the wishlist or comparison list, the customer must do that themselves.*

51 Order Archiving

In order to speed up the performance on the backend when admin users are using the Admin panel to service customers and look up orders, Magento Enterprise Edition order archiving functionality. Order archiving allows the merchant to set a time period after which orders and their related sales documents (invoices, credit memos, and so on) are moved to an archive table. Archived orders are not deleted and are still available in the backend via the Admin Panel, but having the older, less frequently accessed orders moved out of the main order tables enables admin users to access the newest orders more quickly.

This feature was introduced in Version 1.8 of Magento Enterprise Edition.

To enable order archiving:

1. Choose **System > Configuration**. Select the **Sales** tab on the left.

2. In the **Orders, Invoices, Shipments, Credit Memos Archiving** panel, you can set the following values:

   ❖ **Enable Archiving - Yes** enables archiving using the values below. **No** disables archiving and any values below are ignored.

   ❖ **Archive Orders Purchased -** Age (in days) of orders to be archived. Orders and their related documents older than this number of days will be moved to the archive table.

   ❖ **Order Statuses to be Archived -** Status of orders that can be archived. By default, orders flagged as "complete" and "closed" are set to be archive-able. You can expand this list to include more order statuses or reduce it to fewer.

   Click the [✔Save Config] button to save your settings

52 Customer and Address Attributes

Magento has many built-in customer data fields to support the order, fulfillment and customer management processes. But every business is different and many times additional fields are necessary Magento Enterprise Edition includes the ability to create and manage custom customer attributes and custom address attributes from the Admin Panel. With the Customer/Address Attribute functionality, the store administrator can create custom attributes to be displayed in the following areas of the backend and frontend:

❖ Create an Account page where a guest is registering for a customer account

❖ Account Information section of the customer's account in the frontend

❖ Address Book section of the customer's account in the frontend

❖ Billing Information section of the Checkout page for the registered customer

❖ Billing Information section of the Checkout page available when the guest is registering for a store

❖ Account Information section in an order being created for a customer in the backend

❖ Billing Address section in an order being created for a customer in the backend

This feature was introduced in version 1.9 of Magento Enterprise Edition.

Chapter Quick Reference

The table below lists some of the most common tasks for using EE's customer and address attributes and where to go in the Admin Panel to perform them. The sections that follow provide step-by-step instructions on each.

TASK	ADMIN MENU
Creating custom customer attributes	Customers > Attributes > Manage Customer Attributes
Creating custom address attributes	Customers > Attributes > Manage Customer Address Attributes
Changing the order of address fields on the frontend	System > Configuration > Customer Configuration Address Template panel

To create custom customer attributes:

When creating a customer attribute, the store administrator needs to specify a number of properties for it including those for displaying the attribute in the frontend.

1. Choose Customers > Attributes > Manage Customer Attributes.
On the resulting Customer Attributes grid you can see all of the system and custom attributes. You cannot edit or delete System Attributes.

2. Click the [+Add New Attribute] button.
The resulting page is very similar to the Product Attribute editor, which you are probably already familiar with.

3. On the Properties tab, in the Attribute Properties panel, enter the appropriate information for the following fields to create your attribute:

❖ **Attribute Code:** Specify the customer attribute name that will be used by the system. The name must be unique and must not contain any special characters, except an underscore, or any spaces.

❖ **Input Type:** Specify the way the attribute being created will be presented to the customer in the frontend. The following options are available:

- o **Text Field:** Single line text field. Max and min size can be specified later.
- o **Text Area:** Multi-line text input area. Max and min size can be specified later.
- o **Multiple Line:** The number of input lines to be available for the customer in the frontend (cannot exceed 20 lines).
- o **Date:** The system validates the customer's date attribute input.
- o **Dropdown:** Dropdown list of options. When selected, the store administrator needs to create a number of attribute options on the Manage Label / Options tab.
- o **Multiple Select:** Multi-selectable list of options. When selected, the store administrator needs to create a number of attribute options on the Manage Label / Options tab.
- o **Yes/No:** Binary/yes-no input field.
- o **File (attachment) :** Allows files to be uploaded by the customer.
- o **Image File:** Allows images to be uploaded by the customer.

❖ **Default Value:** Specify a value that will be displayed in the attribute field in the frontend as a default one.

❖ **Input Validation:** Specify how the customer's input will be validated by the system when the customer enters a value in the attribute field in the frontend. The system verifies that the value entered in the attribute field corresponds to the type of attribute created. Input validation options available to the store administrator may vary depending on the attribute input type selected.

❖ **Minimum Text Length** and **Maximum Text Length:** Specify the values for the minimum and maximum allowed length of text that can be entered by a customer in the attribute field in the frontend. These fields appear if the attribute is of Text Field, Text Area, or Multiple Line input type.

❖ **Maximum File Size** (bytes)**:** Specify the maximum allowed size of a file to be attached. This field appears if the attribute is of File type.

❖ **File Extensions:** List allowed extensions of files to be attached in the field. Separate multiple file extensions with a comma. This field appears if the attribute is of File type.

❖ **Values Required:** Specify whether the attribute field should be mandatory on frontend forms. The customer will not be able to save his or her account information if the mandatory attribute is not filled out.

❖ **Input/Output Filter:** Choose which filter will be applied to the attribute during the input and output operations. Filters can only be applied if the attribute is of Text Field, Text Area, or Multiple Line input type. The following options are available:

- o None
- o Strip HTML Tags
- o Escape HTML Entities

❖ **Use in Customer Segment:** If **Yes**, the custom attribute being created can be used in customer segmentation. (Customer segments are used as targets for advertising, promotions, and suggestive selling. Customers can match any of created segments based on their personal data and purchase history. In Magento, customer segments are created and set up under **Customers > Customer Segments**.)

4. On the **Properties** tab, in the **Frontend Properties** panel, enter the appropriate information for the following fields to create your attribute:

❖ **Show on Frontend:** Specify whether the attribute will be available in the frontend.

❖ **Sort Order:** Specify the position at which the attribute will be displayed. All custom attributes are displayed after the system attributes, so they are shown at the end of the existing form fields.

❖ **Forms to Use In:** Choose the forms on which the custom attribute will be displayed in the frontend. Choose among the following options:

    o   Customer Checkout Register

    o   Customer Registration

    o   Customer Account Edit

    o   Admin Checkout

5. On the **Manage Label/Options** tab, set label to be displayed to the customer in the frontend. Specify the value either for a specific store view or a default one for all store views.

If the attribute input type selected on the Properties tab is either Dropdown or Multiple Select, a number of options can be added to the attribute on the Manage Label / Options tab. The store administrator can perform this by clicking the **Add Option** button located in the Manage Options (values of your attribute) area and specifying a label for each attribute option. This also can be done for either all store views or for specific ones. When all required options are added, the store administrator can specify which of them will be displayed in the attribute field as a default option by selecting the Is **Default** check box. The order of customer attribute options is set in the **Position** field.

6. Click the [✔Save Attribute] button to save your attribute.

To create custom customer address attributes:

Customer address attributes created by the store administrator are used when the store needs to find out any additional address information from the customer. This can be an optional email address, Skype account, alternate phone number, county, etc.

The process for creating a customer attribute and a customer address attribute are almost the same except that customer address attributes can be displayed in the frontend only in the following two forms:

❖ Customer Registration Address

❖ Customer Account Address

For detailed information about how to create an address attribute, refer to the instruction above to create custom customer attributes.

To change the order of address fields on the frontend:

Currently, the store administrator can modify address templates which define the look of address fields in the customer's billing or shipping addresses in the frontend. This can be done for the following addresses in the system:

❖ Customer's billing and shipping addresses in the customer's address

❖ Shipping and billing addresses from customer's address book (available during the shopping cart checkout)

❖ Addresses in invoices, shipments, and refunds (printed in PDF files)

1. Choose **System > Configuration**. Select the **Customer Configuration** tab on the left.

2. In the **Address Template** panel, you can edit the following address templates:

❖ **Text:** The template is used for all addresses that are printed.

❖ **Text One Line:** This template defines the order of address entities in the customer's shopping cart address book list. Progress during checkout.

❖ **HTML:** This template defines the order of address fields located under the Customer Addresses area in the Admin panel (Customers > Manage Customers) and those located on the Add New Address page when a customer creates a new billing or shipping address on his or her account page.

❖ **PDF:** The template defines the display of billing and shipping addresses in the printed invoices, shipments, and credit memos.

❖ **JavaScript Template**

❖ In the templates, you will see the following code blocks:

   o depend code**:** For processing of inner elements
   o if code**:** An attribute is defined
   o var code**:** The code attribute is printed

❖ Use the following examples in your address templates:

   o For Text, Text One Line, HTML, and PDF address templates**:** {{depend address attribute code}} a space, a character, or a User Interface label {{/depend}}; {{if address attribute code}}{{var address attribute code}} a space, a character, or a User Interface label {{/if}}

   o For JavaScript address template**:** #{address attribute code} or User Interface label #{address attribute code}

Click the [✔**Save Config**] button to save your template modifications.

53 Persistent Shopping Cart

This chapter describes the Persistent Shopping Cart feature, which enables you to use a persistent cookie in Magento. In Magento Community Edition, only a session cookie is used. A persistent cookie is used to give access to certain account data after the session cookie expires.

The Persistent Shopping Cart feature will work as described only for those customers whose browsers allow the use of cookies.

This feature was introduced in Version 1.11 of Magento Enterprise Edition.

53.1   Persistent Shopping Cart – General Concept

The persistent cookie feature enables customers to have access to the shopping cart, wishlist, last ordered items and other history of interaction with the store, as well as have all customer specific settings applied, for a long period of time after the customer logs out or closes the window, or the session cookie lifetime runs out. Account-holder (non-guest) access to the checkout and My Account sections still require the customer to log in, to apply the session cookie.

53.2   Persistent Shopping Cart – a Quick View

By default, using the persistent cookie is disabled. You can enable and configure it under **System** > **Configuration** > CUSTOMERS > **Persistent Shopping Cart**. See Figure 303.

Figure 303. Persistent Shopping Cart Configuration Fields

The **Enable "Remember Me"** field defines whether the **Remember Me** check box is displayed on login and registration pages on the frontend. This check box governs whether the persistent cookie can be actually applied for a given customer.

If the feature is enabled, and the **Remember Me** check box is selected by a customer, the cookies are applied in the following order (there are two alternatives, depending on the **Clear Persistence on Log Out** value):

Clear Persistence on Log Out value	Cookies applied
Yes	When a customer logs in, both cookies (session and persistent) are applied. When a customer logs out, both cookies are deleted. If a customer does not log out, but the session cookie expires, the persistent cookie is still used. The customer has access to the sections, specified in the Persistent Shopping Cart configuration.
No	When a customer logs in, both cookies are applied. When a customer logs out, the session cookie is deleted, but the persistent cookie remains. If a customer does not log out, but the session cookie expires, the persistent cookie is still used.

When a persistent cookie is applied, a **Not %Jane Smith%?** link is displayed in the page header, enabling the customer to terminate the persistent session and start working as a guest or log in as a different customer.

*Note: If **Persist Shopping Cart** is set to **Yes**, the following situation is possible: Customer A in the persistent session adds products to the cart, and goes away to make a cup of coffee. Customer B takes his place, and does not click the **Not %Customer A%** link. The B is actually working with the A's shopping cart. If he or she goes to checkout and logs in as Customer B, the shopping cart content of the A (modified by B or not) is added to the B's shopping cart. After B submits the order, the ordered products will be removed from the A's shopping cart.*

53.3 Enabling and Configuring the Persistent Shopping Cart

By default, using the Persistent Shopping Cart feature is disabled.

To enable and configure the Persistent Shopping Cart:

1. Select **System**, and click **Configuration**.

2. In the **Current Configuration Scope** drop-down menu in the upper left corner of the page, select the desired website.

3. Under CUSTOMERS in the left column click **Persistent Shopping Cart**. The following options are available:

Option	Description
Enable Persistence	Defines whether using the persistent cookie is enabled.
Persistence Lifetime (seconds)	Defines the lifetime of the persistent cookie in seconds. Maximum allowed value is 3153600000 seconds (100 years).
Enable "Remember Me"	Defines whether the **Remember Me** check box is displayed on the login and registration pages on the frontend. If **Enable Persistence** is set to **Yes**, and **Enable "Remember Me"** is set to **No**, the persistent cookie is only used for those customers who already have it.
"Remember Me" Default Value	Defines the default state for the **Remember me** check box on the frontend.
Clear Persistence on Log Out	Defines whether the persistent cookie is deleted when a store customer logs out. **Note**: No matter how **Clear Persistence on Log Out** is configured, if a customer does not log out, but the session cookie expires, the persistent cookie is still used.
Persist Shopping Cart	Defines whether using the persistent cookie gives access to the shopping cart data of the correspondent account. The following options are available: • **No** – a customer with only persistent cookie applied will have a guest shopping cart. Its content will be added to the registered customer's shopping cart after logging in. If a customer clicks the **Not %John Smith%?** link, the shopping cart content is left unchanged, as a customer will simply continue working with the same guest shopping cart. • **Yes** – a customer with only persistent cookie applied will work with the shopping cart of the corresponding account, and will continue working with it after logging in. If a customer clicks the **Not %John Smith%?** link, the shopping cart content is left unchanged, as a customer will simply continue working with the same account shopping cart. When **Persist Shopping Cart** is set to **Yes**, the following situation is possible: Customer A in persistent session adds products to the cart, and goes away to make a cup of coffee. Customer B takes his place, does not click the **Not Customer A** link. He or she will be working with A's shopping cart actually. If B goes to checkout and logs in as Customer B, the A's shopping cart content (modified by B or not) will be added to B's shopping cart. After B submits the order, the ordered products will be removed from A's shopping cart.
Persist Wishlist	Defines whether using the persistent cookie gives access to the wishlist data of the corresponding account. As guest customers do not have wishlists, if **Persist Wishlist** is set to **No**, a customer

Option	Description
	with only the persistent cookie applied will need to log in to access the wishilist.
Persist Recently Ordered Items	Defines whether using the persistent cookie gives access to the Recently Ordered Items block data of the corresponding account.
Persist Currently Compared Products	Defines whether using the persistent cookie gives access to the Currently Compared Products block data of the corresponding account.
Persist Comparison History	Defines whether using the persistent cookie gives access to the Comparison History block data of the corresponding account.
Persist Recently Viewed Products	Defines whether using the persistent cookie gives access to the Recently Viewed Products block data of the corresponding account.
Persist Customer Group Membership and Segmentation	Defines whether using the persistent cookie enables applying customer group rules (tier pricing, catalog price rules, shopping cart price rules) and segment rules (related to displaying banners) of the corresponding account.

53.4 Persistent Shopping Cart Implementation

The Persistent Shopping Cart feature will work as described only for those customers whose browsers allow the use of cookies.

The following table describes store customer access to different parts of the corresponding account data and store functionality, depending on the cookies applied.

Cookie applied	Store customer access
Only session cookie applied	A store customer has full access to all data of the corresponding account, no login required for checking out.
Both session and persistent cookie are applied.	Similar to the case where only the session cookie is applied.
Only persistent cookie is applied	The customer has access to the sections, which are configured to be persisted in the Persistent Shopping Cart settings; the **Not %John Smith%** link appears in the pages header next to **Welcome, John Smith**! string. To be able to check out the customer is prompted to log in. After the login the session cookie is applied.

Cookie Application Workflow

When the Persistent Shopping Cart feature is enabled, the general workflow of applying the persistent cookie depends on the values of the **Enable Remember Me** and **Clear Persistence on Log Out** settings in the Admin Panel, and the store customer decision to select or clear the **Remember Me** check box when logging in or registering. The following variants are possible:

Settings	Effect
Enable Remember Me = No **and** Clear Persistence on Log Out **= any value**	The **Remember me** check box is not available on the login and registration page. The persistent cookie is not used.
Enable Remember Me = Yes **and** Clear Persistence on Log Out **= any value and customer does not select** Remember Me	The session cookie is applied as usual; the persistent cookie is not used.
Enable Remember Me = Yes **and** Clear Persistence on Log Out = Yes **and** **Customer selects** Remember Me	When a customer logs in, both cookies are applied. When a customer logs out, both cookies are deleted. If a customer does not log in, but the session cookie expires, the persistent cookie is still used. Apart from logging out, the persistent cookie is deleted when its lifetime runs out or when the customer clicks the **Not %Jane Smith%** link.
Enable Remember Me = Yes **and** Clear Persistence on Log Out = No **and** **Customer selects** Remember Me	When a customer logs in, both cookies are applied. When a customer logs out, the session cookie is deleted, the persistent session continues. The persistent cookie is deleted when its lifetime runs out or when the customer clicks the **Not %Jane Smith%** link.

Cross-Browser Approach

There is a separate independent persistent cookie for each browser.

If a customer opens a store in multiple browsers using store cookies, the changes made in any browser are reflected in other browsers after pages are refreshed.

Persistent Shopping Cart in Magento Community Edition

The Persistent Shopping Cart feature in Magento Community Edition has the following restriction: persistent cookies can give access to shopping cart data only.

54 Multiple Wishlists

Multiple Wishlists functionality enables store customers to create multiple Wishlists with different privacy setting for each of them.

This feature was added in Enterprise Edition v1.12.

54.1   General Concept

With the Multiple Wishlists functionality enabled, store customers can perform the following actions with their Wishlists:

❖ Create multiple Wishlists

❖ For each Wishlist, configure whether it is private or public

❖ Move items between Wishlists

❖ Search for public Wishlists of other customers and purchase items from them

All of a given customer's Wishlists are available in the Admin Panel, similar to the way a single Wishlist is available.

54.2   Configuring Multiple Wishlists

The Multiple Wishlists functionality is disabled by default.

To enable and configure the Multiple Wishlists functionality:

1. Log in to the Magento Admin panel.

2. Navigate to **System** > **Configuration** > CUSTOMERS > **Wishlist.**

3. In the **Current Configuration Scope** drop-down menu, select the desired store view.

4. Expand the **General Options** field set.

5. If **Enabled** is set to **No**, switch it to **Yes**. Doing so will enable the regular Wishlist functionality and make the Multiple Wishlists-related settings appear.

6. In the **Enable Multiple Wishlists** field, select **Yes**. The **Number of Multiple Wishlists** field appears.

7. In the **Number of Multiple Wishlists** field, specify the maximum number of Wishlists each customer will be allowed to create. The specified number should exceed 1. The default value is 5.

8. To save the settings click **Save Config**.

54.3   Customer Experience with Multiple Wishlists

The section describes the options available for store customers when the Multiple Wishlists functionality is enabled.

Note: *In Magento, the Wishlist functionality is available for logged-in customers, and customers working in a persistent session, when the Persistent Wishlist is enabled.*

Managing Multiple Wishlists

For store customers, Wishlist management options are available on the **My Wishlists** tab of the My Account page. See Figure 304.
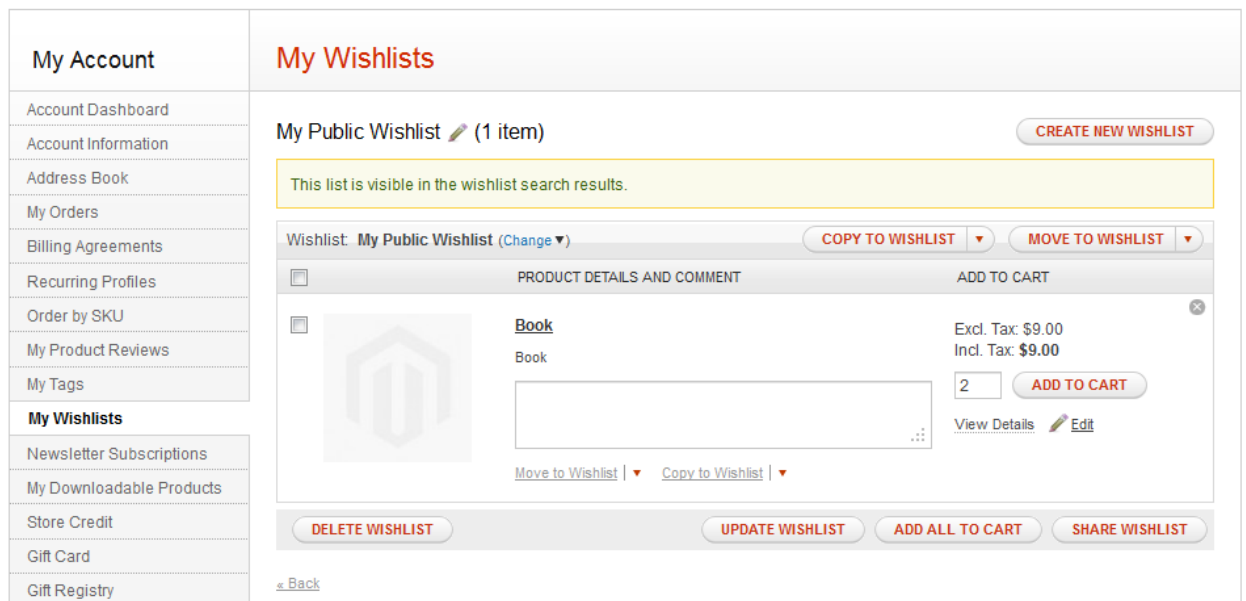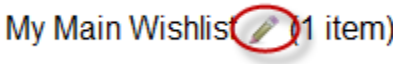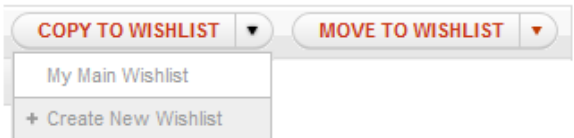

Figure 304. Managing Multiple Wishlists in the Frontend

The following table lists the main actions related to multiple Wishlists, which a customer can perform on the **My Wishlists** tab and means of performing them:

Task	How to do it
Create a new wishlist	• On the **My Wishlists** tab of the My Account page, click the **Create New Wishlist** button. • Click **Create New Wishlist** when selecting a wishlist to which an item will be added, moved or copied. Can be performed on the **My Wishlists** tab of the My Account page and in all places where the **Add to Wishlist** link is displayed.
Edit the name or privacy properties of an existing wishlist	Click the Edit icon near the wishlist name. My Main Wishlist 🖉 (1 item)
Move/copy an item from one wishlist to another	• Select the desired items, click the little arrow next to the link and select the target wishlist. • To move/copy items to the default wishlist, select the items and click the *Move to Wishlist* or the *Copy to Wishlist* link under the item description. Move to Wishlist ▼ Copy to Wishlist ▼ My Public Wishlist + Create New Wishlist
Move/copy multiple items from one list to another	• Select the desired items, click the down arrow next to the **COPY TO WISHLIST** or **MOVE TO WISHLIST** button, and select the desired wishlist. • To move/copy multiple items to the default wishlist, select the desired items and click the **COPY TO WISHLIST** or **MOVE TO WISHLIST** button. COPY TO WISHLIST ▼ MOVE TO WISHLIST ▼ My Main Wishlist + Create New Wishlist
View another wishlist	Click the **Change** link in the table header and select the wishlist you want to view. Wishlist: **My Main Wishlist** (Change ▲) ☐ My Public Wishlist PRODU + Create New Wishlist ☐ Book

Task	How to do it
Delete a wishlist	Click the **DELETE WISHLIST** button located under the wishlist items list.

Note: The default wishlist cannot be deleted.

Adding a Product to One of the Multiple Wishlists

When the Multiple Wishlists functionality is enabled, store customers can add items to any of the multiple Wishlists, using the down arrow next to the **Move to Wishlist** link.

Clicking the **Move to Wishlist** link adds products to the default Wishlist.

Searching for a Wishlist

All Wishlists that are set to be public can be found using the Wishlist search (a widget of the Widget Search type). The widget enables a customer to search by Wishlist owner name or email address.
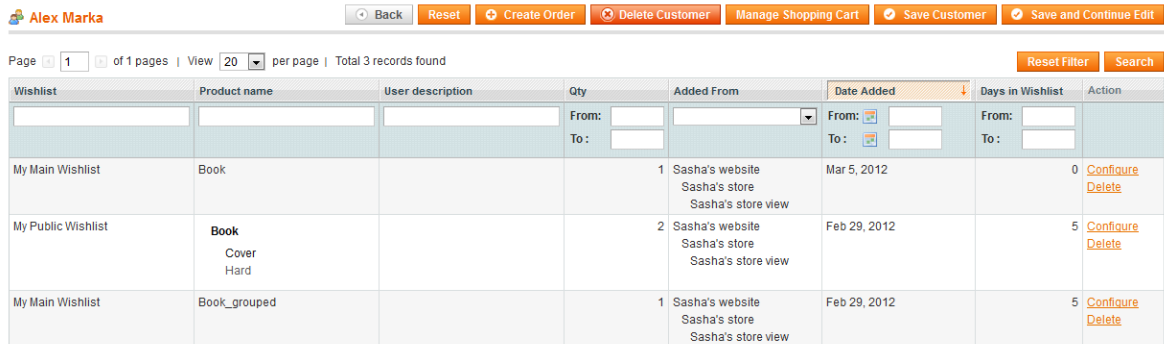
When store customers find someone else's Wishlist, they can view it, order products from this Wishlist, or add the products to their own Wishlists.

When items from a customer's public Wishlist are purchased by another customer, the items are not removed from the original Wishlist.

54.4   Managing Multiple Wishlists in the Backend

In the Admin Panel, all items of all customer Wishlists are always displayed on all pages where Wishlist items are usually available (such as the Create New Order and Manage Shopping Cart pages), irrespective of whether the Multiple Wishlists functionality is enabled or disabled. Figure 305 illustrates the **Wishlist** tab on the Customer Information page.

Figure 305. Customer Information Page with Multiple-Wishlist Items

On Figure 305, the Wishlist items from two different Wishlists are displayed in the grid, and the name of each Wishlist is specified in the Wishlist column.

Adding a Wishlist Search Widget

A Search widget of type Wishlist implements the ability to search for public Wishlists in the frontend.

To add a Wishlist Search widget:

1. In the Admin Panel, navigate to **CMS** > **Widgets**.

2. Click the **Add New Widget Instance** button. The New Widget Instance page opens.

3. In the **Type** drop-down field, select **Wishlist Search**. In the **Design Package/Theme** field, select the desired design theme and click **Continue**.

4. On the **Widget Options** tab in the **Quick Search Form Types** field, choose the type of the quick search form which will be used. The following options are available:

    ❖ **All Forms** – Use all listed form types.

    ❖ **Wishlist Owner Name Search** – Store customers will be able to search for the Wishlists by an owner name.

    ❖ **Wishlist Owner Email Search** - Store customers will be able to search for the Wishlists by an owner email address.

5. Configure other widget properties.

6. Save the widget by clicking **Save** or **Save and Continue**. The widget becomes available in the frontend.

Multiple Wishlists Reports

An admin can view and export a report about all Wishlists of store customers under **Reports** > **Customers** > **Customers Wishlists.** A customer Wishlists report lists all Wishlist items and contains the following information:

- ❖ The date when a product was added
- ❖ The customer name
- ❖ The Wishlist name and status (public or private)
- ❖ The product name and SKU
- ❖ Customer comments
- ❖ Quantity of the product in the Wishlist, quantity currently available in the store, and the difference between these two values.

You can choose to see a report for the whole website or for an individual store view. The scope is selected in the **Show Report For** field. The report can be exported to .csv or Excel .xml format.

55 Order by SKU

Magento Enterprise Edition enables store customers and administrators to add products to shopping carts and orders by specifying SKU numbers.

Important Note: The compound dynamic SKUs of bundle products are not supported.

This feature was added in Enterprise Edition v1.12.

55.1   Order by SKU: Quick Reference

In the Magento Admin Panel, the Order by SKU functionality is always available and does not require configuration. Products can be added by SKUs in the following locations:

❖ The Create New Order page (**Sales** > **Orders** > **Create New Order**)

❖ The Shopping Cart page (**Customers** > **Manage Customers** > %customer% > **Manage Shopping Cart**)

An administrator can specify individual SKU values or load a .csv file with a list of SKUs.

In the frontend, you can make the Order by SKU functionality available for store customers by creating a widget instance of the Order by SKU type and by enabling the **Order by SKU** tab on the My Account page.

Widgets are created and managed under **CMS** > **Widgets**. Displaying the **Order by SKU** tab can be enabled or disabled in the Admin Panel under **System** > **Configuration** > SALES >**Sales** >**Order by SKU Settings**. The **Order by SKU** tab provides the ability to load a .csv file with a list of SKUs.

55.2   Configuring the Order by SKU Functionality

In the Magento Admin Panel the Order by SKU functionality is always available and does not require configuration.

In the frontend, you can make the Order by SKU functionality available for store customers by creating a widget instance of the Order by SKU type and by enabling the Order by SKU tab on the My Account page.

The **Order by SKU** tab contains the fields for entering SKUs and quantities, and controls for loading a .csv file with a list of SKUs. A widget of the Order by SKU type contains the fields for SKUs and quantities and optionally a link to the **Order by SKU** tab.

To create an Order by SKU widget:

1. Log in to the Magento Admin Panel

2. Navigate to **CMS** > **Widgets.**

3. Click the **Add New Widget Instance** button.

4. In the **Type** field select **Order by SKU** and configure other widget options. The **Display a Link to Loading a Spreadsheet** setting determines whether the widget will contain a link.

5. To save the widget click **Save** or **Save and Continued Edit**.

To enable the Order by SKU tab of the My Account page:

1. Log in to the Magento Admin Panel

2. Navigate to **System** > **Configuration** > SALES > **Sales**

3. In the **Current Configuration Scope** select your website.

4. Expand the Order by SKU Settings field set.

5. In the **Enable Order by SKU in my Account on Frontend** select one of the following:

   - **Yes, for Everyone** – The Order by SKU tab will appear on the My Account page for all logged in customers.

   - **Yes, for Specified Customer Groups** - The field for specifying Customer Group(s) appears once you select the option. The **Order by SKU** tab will be displayed on the My Account page for those logged in customers who belong to the Customer Group(s) you specify.

   - **No** – The **Order by SKU** tab on the My Account page will not appear.

6. To save the configuration click **Save Config**.

Important Note: The Order by SKU functionality supports ordering by a compound SKU value, consisting from the system SKU value and a value of the custom option SKU, delimited by the "-" sign. However such a compound value can be processed correctly only if both the system SKU and custom option(s) SKU values do not contain a "-" sign.

55.3   Ordering by SKU in the Backend

In the backend, you can find the Order by SKU functionality in the following locations:

❖ The Create New Order page, available under **Sales** > **Orders** > **Create New Order**. Clicking the **Add Products by SKU** button opens the **Add to Order by SKU** section. See Figure 306.
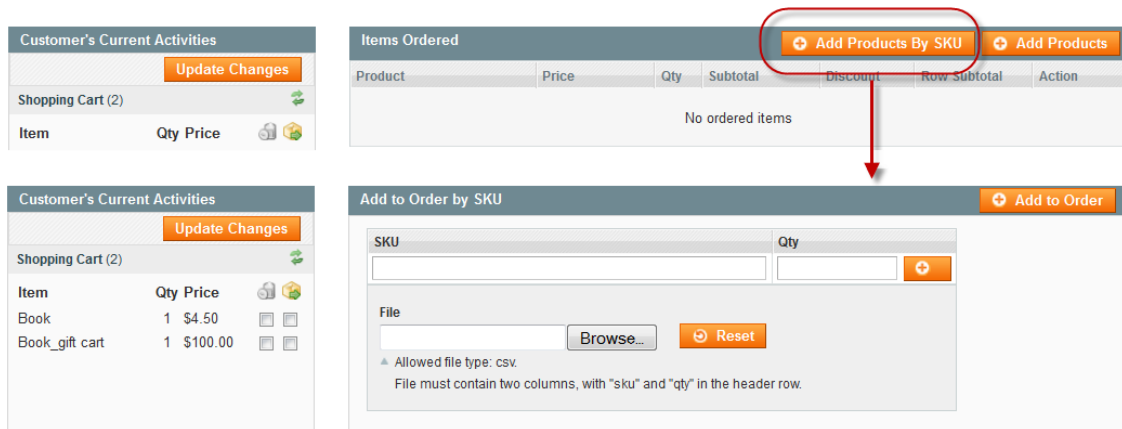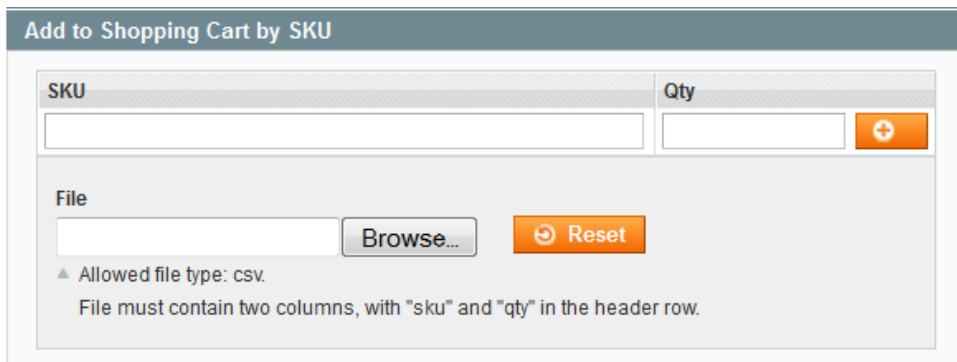

Figure 306. Adding Items to an Order by SKU

❖ The Shopping Cart page, available under **Customers** > **Manage Customers** > %customer% > **Manage Shopping Cart**. To access the ordering by SKU controls, expand the **Add to Shopping Cart by SKU** field set. See Figure 307.

Figure 307. Add to Shopping Cart by SKU Field Set on the Shopping Cart Page in the Admin Panel

To add products by SKU during admin order creation or managing a shopping cart:

1. Click **Add Products by SKU** button or expand the **Add to Shopping Cart by SKU** field set.

2. Specify SKUs and quantities, or load a spreadsheet, or both. Only the .csv file format is supported. See "Loading a Spreadsheet with SKUs: Requirements," page 442, for details about file restrictions.

3. Choose to add products to cart/order.

4. If some products cannot be added on any reason (out of stock, require configuring, or some other reason), then they are listed in a separate grid under the "Products requiring attention" heading. See "Ordering by SKU: Exceptions Handling in the Backend," page 439, for details about processing different product types.

5. Perform product configurations and update quantities in the "Products requiring attention" grid if necessary, and add products to cart/order.

6. If product addition fails again, the products still will be listed in the grid. You can ignore the "Products requiring attention" grid and proceed with creating order or managing the shopping cart. If you delete all products, the grid disappears.

The grid with products which could not be added is stored during the session.

Ordering by SKU: Exceptions Handling in the Backend

The following are the situations in which products cannot currently be added to cart/order in the backend because of some correctable condition, or cannot be added in at all. In these situations, the corresponding SKUs are displayed in the "Products requiring attention" grid:
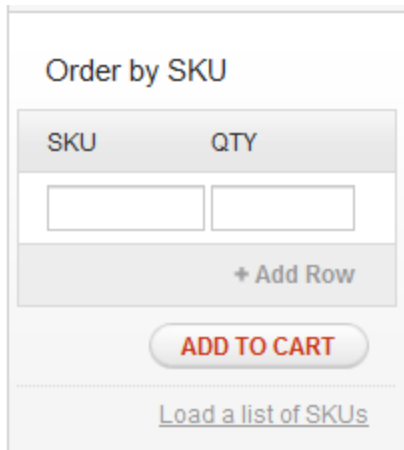
❖ A product is composite (a product of configurable, grouped, bundle, gift card types or a product with custom options). These products can be added after configuring them.

❖ No product with a specified SKU is found in the catalog. The product cannot be added.

❖ A product is assigned to another website. The product cannot be added.

❖ A product is disabled or out of stock (in this case a product cannot be added to a shopping cart, but can be added to an order).

55.4   Ordering by SKU: Customer Experience

In the frontend, the Order by SKU functionality can be made available in the following locations:

❖ In the widget, which can be located on any store page. Its location is configured by an administrator. See Figure 308.

Figure 308. Order by SKU Widget

❖ On the Order by SKU tab of the Account Information page. It must be enabled by an administrator to appear, see Configuring the Order by SKU Functionality section. The tab is available for logged-in users only. On the Order by SKU tab, customers can add products by individual SKUs or load a .csv file with a list of SKUs. See Figure 309.

Figure 309. Order by SKU Tab in the My Account Page

After a customer specifies SKUs and quantities, or loads a spreadsheet, the Shopping Cart page appears. If products cannot be added to the Shopping Cart on some reason, they are listed in a separate grid on the Shopping Cart page. See Figure 310.

Figure 310. Products Requiring Attention

Products from this grid can be added to cart after the customer performs configuration or specifies quantities. A customer can ignore the grid with failed products and proceed to checkout for products that were successfully added to the Shopping Cart. The grid is stored during the session.

Ordering by SKU: Exceptions Handling in the Frontend

After a customer specifies SKUs or loads a spreadsheet with SKUs, and chooses to add them to the Shopping Cart, all products that can be ordered and do not require additional configuration are added to the Shopping Cart. All other products are displayed in a separate grid under the Products Requiring Attention heading.

The following are the situations in which products cannot currently be added to a Shopping Cart because of some correctable condition, or cannot be added at all:

❖ A product is composite (a product of configurable, grouped, bundle, gift card types or a product with custom options)

❖ A product is out of stock or disabled

❖ There is not enough quantity in stock and backorders are not allowed

❖ No product with a specified SKU is found in the catalog

❖ The quantity specified is less than the minimum allowed in the cart for a product

❖ The quantity specified is greater than the maximum allowed in the cart for a product

❖ A product cannot be added because of category permissions settings

❖ A product is assigned to another website

❖ A product is configured to be not visible individually

❖ A product cannot be added because of other errors, such as errors in installed extensions or customization

55.5   Loading a Spreadsheet with SKUs: Requirements

The same requirements are applied to a spreadsheet with SKUs in both the frontend and backend.

A spreadsheet must have at least two columns and must be stored in a .csv file. The header row must contain "sku" and "qty". If a file contains other columns, they will be ignored, but the file will be processed correctly.

Figure 311 shows an example of valid content of a .csv file for ordering by SKUs.

sku	qty
book1	2
book2	3
book3	1

Figure 311. A Valid Spreadsheet for Ordering by SKU

Files with SKUs are processed according the following rules:

❖ A row where the SKU value is empty is ignored.

❖ A row where the SKU value is not empty, and the QTY value is empty, invalid, or equal to "0," is processed and the corresponding product is placed in the "Products requiring attention" grid.

PART X: MAGENTO MOBILE

56 XML Connect Module: Managing Mobile Applications

XML Connect is a module that enables you to create and manage Magento mobile applications. It also enables these applications to load content and communicate with a Magento Enterprise Edition instance on the server after being installed on a mobile phone or other mobile device. See Figure 312.

Figure 312. Magento Application on a Mobile Phone

Magento Enterprise Edition integrate the XML Connect module with the system. You can easily create mobile applications for your stores from the Magento Admin Panel.

To enable or disable the XML Connect module, select **System** > **Configuration** > ADVANCED > **Advanced** and select **Enable** or **Disable** in the **Mage_XmlConnect** drop-down menu.

Getting Help

According to the Magento Mobile logic, a mobile application is strictly bound to a certain store and certain mobile device type. The general workflow for creating and activating a mobile application is the following:

1. Create a mobile application in the Admin Panel.

2. Subscribe to one of the Magento support plans and receive the activation key.

3. Submit your application to Magento.

4. Magento adds your application to the store, like App Store or Google Play, and supports it for the period corresponding to your subscription plan.

56.1   Creating a New Mobile Application

To access the mobile applications management section, select **Mobile** > **Manage Apps** from the top menu.

To create a new application:

1. Click the **Add App** button in the upper-right corner of the **Manage Apps** page. The **New App** page opens (see Figure 313).

Figure 313. Creating a New Mobile Application, Selecting the Device Type

2. Select the targeted device type in the **Device Type** drop-down menu. The available options are **iPad**, **iPhone**, and **Android**. Click the **Continue** button.

3. At this step, several tabs with settings are available (see Figure 314).

Figure 314. Configuring a New Mobile Application

❖ On the **General** tab, specify the following fields:

o **App Name:** Specify the name of the application. It is an internal name and it is not displayed to the application users.

o **Store View: S**elect the store view the application is created for.

o **Catalog Only App:** Decide whether your application shows only the catalog or provides the options to buy products or add them to the Wishlist.

Note: *These settings are applied after the general website restrictions, set in the* *System* > *Configuration* > *GENERAL* > *General* > *Website Restrictions.*

❖ On the **Design** tab you can customize the design of your application:

o In the **Images** field set you specify your logo, banners, and background image. Up to five banners can be loaded; they will be rotating. For each banner you can choose the action to be performed on banner click. To set an action for a banner, click the link next to the **Action** label. See Figure 315.
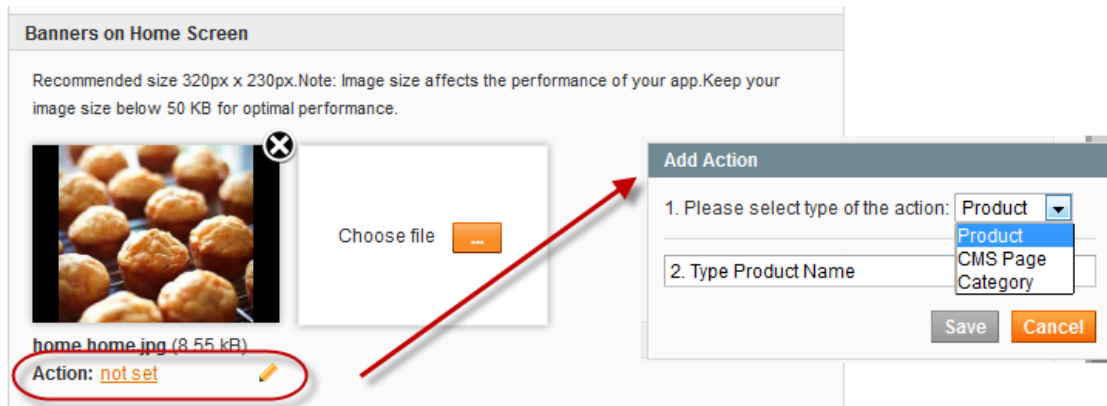

Figure 315. **Setting an Action for a Banner**

You can choose to redirect customers to product page, CMS page, or category page. For product and category pages, you will need to type the name of the product or category. A CMS page can be selected from a list.
After you add the images, you can save the application, using the **Save** or **Save and Continue Edit** buttons in the upper-right corner of the page.

o In the **Color Themes** field set you can customize the color schemes.

o In the **Tabs** field set you can manage the tabs of your application.

You can see the changes applied at once: the preview image is displayed in the right part of the page.

❖ On the **Content** tab you can add pages, based on the existing CMS pages, which will be available for navigation for the application users. To add a new page, click the **Add Page** button. For a new page you need to specify:

o In the **Label** field, specify the label for the application page. The label is visible for application users.

o In the **Get Content from CMS Page** list, select from which CMS page the content is taken. The list contains default CMS pages and custom CMS pages created for the selected store view.

o On the **Payment Methods** tab, you can configure which payment methods will be available for the application users. The following fields are available:

o **Enable Standard Checkout:** If you select **Yes** all payment methods that are supported by Magento Enterprise Edition, will be available.

o **Activate PayPal MECL:** In this field you can activate the PayPal mobile embedded payment method. You can choose to use MECL (Mobile Express Checkout Library) alongside standard checkout, or use it as your only checkout method for Magento mobile. PayPal MECL requires a PayPal business account.

❖ On the **Analytics** tab you can enable Flurry Analytics, after subscribing to a Magento support plan and submitting your application to Magento. You will be able to see the statistics both in the Admin Panel and at www.flurry.com. The following fields are available:

o **Enable Flurry Analytics -** If you select Yes, the Flurry API Code field appears.

o **Flurry API Code -** Specify your Flurry API code. You can request it from Magento, after submitting your application.

❖ **Flurry Analytics Site -** Contains the link to www.flurry.com, where you can view the statistics after it is enabled.

Note: *Enabling the Flurry Analytics is currently possible for iPhone applications only. Support for Android and iPad are planned for a future Magento Enterprise Edition release.*

❖ The **Submission History** tab contains records about the application submissions. You need to resubmit the application if you make changes in any submission settings. It refers to the settings on the **Submit App** page, which opens on **Save and Submit App** button click. These settings are described in "Subscribing to a Magento Support Plan and Submitting the Mobile Application ," page 447.

❖ On the **Cache Management** tab you can set the lifetime of cache on the application side. To disable it, leave the **Cache Lifetime** field empty.

❖ On the **Social Networking** tab you can link your application with your accounts on Twitter, Facebook, or LinkedIn via API.

❖ On the **Push Notification** tab you can enable or disable the push notifications service of Urban Airship.

Note: *You can find more about the AirMail by Urban Airship at http://urbanairship.com/products/airmail/.*

To enable the service, you need to accept Urban Airship's Terms of Service and make the following configurations:

❖ In the **Enable AirMail Message Push notification** list, select **Yes**. Additional fields for configuration appear.

❖ In the **Application Key**, **Application Secret**, and **Application Master Secret** fields, specify your Urban Airship account credentials. You can request them from Magento at magentomobile@magento.com, **after submitting your application to Magento.**

❖ In the **Mailbox title** field, specify the title for your mailbox as it will be shown on the **More Info** tab of the application.

You can manage templates for your AirMail push notifications and messages on the AirMail templates page. To access it, select **Mobile** > **Message Templates**. Managing the message templates and message sending is described later in this chapter.

4. To save the newly created application, click the **Save** or **Save and Continue Edit** button in upper-right corner of the page.

56.2   Subscribing to a Magento Support Plan and Submitting the Mobile Application

You can order a subscription for a Magento support plan at http://www.magentocommerce.com/product/mobile. When you buy a subscription, you receive the activation key for your application from Magento.

To submit your application to Magento:

1. Click the necessary application in the list of applications on the **Manage Apps** page. The application opens for editing.

2. Click the **Save and Submit App** button in the upper-right corner of the page. In the **Submit App** page, specify the following:

❖ In the **Activation Key** field under **Key,** specify your activation key from Magento.

❖ Information that you specify in the **Submission Fields** field set will be displayed in the applications store, for example App Store. The following fields are available:

o In the **Title** field, specify the name of your application. It is shown to the customers, so we recommend choosing a 10-12 character recognizable title.

o In the **Description** field, specify the description of your store. It appears in the App Store.

o In the **Contact Email** field, specify the email address to contact for this application and submission issues.

o The **Price** field is currently unavailable for editing, as only free applications are currently allowed in Magento.

o In the **Country** field select the countries where the application will be available.

o In the **Copyright** field enter your copyright text. It appears in the information section of your application.

- o In the **Keywords** fields enter a comma-separated list of keywords for your application. The field may contain 100 characters maximum. These keywords are matched to users' searches in the application stores.

❖ Under **Icons**:

- o In the **Large iTunes Icon** field (or **Large Android Market Logo** for Android applications), browse for the image that will appear as a large icon of your image in the applications store. You do not need to gradient or soften edges; this is done automatically by Apple. Required size: 512px by 512px.
- o In the **Loader Splash Screen** field, browse for the image that will appear first on the screen, while your application is loading. Required size: 320px by 460px. For iPhone applications you can specify a separate image for iPhone retina screens in the **Loader Splash Screen (iPhone 4 retina)** field. Required size: 640px by 920px.
- o In the **Custom App Icon** field, browse for the image that will be used as your application icon, after the user installation of your application. Recommended size: 57px by 57px at 72 dpi.
  For iPhone applications you can specify a separate image for iPhone retina screens in the **Custom App Icon (iPhone 4 retina)** field. Required size: 114px by 114px.
- o In the **Copyright Page Logo** field, browse for your logo image, which is displayed on the copyright page of your application. Recommended size: 100px by 100px.
  For iPhone applications you can specify a separate image for iPhone retina screens in the **Copyright Page Logo (iPhone 4 retina)** field. Required size: 114px by 114px.

3. Click the **Submit App** button in upper-right corner of the page.

After you submit your application, you can contact the Magento team, for example by email at magentomobile@magento.com, to request Urban Airship and/or Flurry credentials, and any other information you need. Placing your application in the application store, for example the App Store, takes from several hours to several days.

The history of applications submissions is stored in Magento. To view it, select **Mobile** > **Submission History**. The **App Submission History** page opens, where you can see the list of submitted applications, submission dates, and activation keys.

56.3   Push Notifications and AirMail Messages to the Application Users

In the Magento Admin Panel you can create and send AirMail push notification messages, also called push notifications, and AirMail messages for your mobile application users. Push notifications, which are plain text messages, are shown to the user upon launching the application. AirMail messages are rich-media, including HTML, images, video and audio.

In Magento, message sending is implemented using the cron job scheduler. By default, it checks for new messages to be sent every 5 minutes.

To send a push notification or AirMail message to application customers you need to take two steps:

1. Create a template for the message.

2. Add the message to the queue.

You select the message type when adding the message to the queue. When you send the AirMail message, the push notification is sent as well. For example, you can make it something like "You've got a new message from YourStore store." The push notification appears when the user opens your application. The AirMail message is stored in the AirMail application inbox.

Creating a Message Template

To access the templates managing feature, select **Mobile** > **Message Templates** from the Magento top menu.

To create a new message template:

1. Click the **Add New Template** button in the upper-right corner of the page. The **New Template** page opens.

2. The following fields are available:

   ❖ **Application -** Select the application for which the message template is intended.

   ❖ **Template Name -** Specify the template name, maximum 255 characters.

   ❖ **Push Title -** Specify the text of the push notification messages that will be sent using this template, maximum 140 characters. When you send the AirMail message, the push notification is sent as well.

   ❖ **Message Title -** Specify the title for the AirMail messages, sent using this template, maximum 140 characters.

   ❖ **Template Content -** In this field you can create the content of your AirMail message. To add the content you can use the WYSIWIG editor, or hide the editor and write the HTML code in the text window. You can hide and show the editor using the **Show/Hide Editor** button.

   ❖ You can insert variables with the store contact information and widgets to your template.

     To insert a variable, click the corresponding icon in the editor, or click the **Insert Variable** button if the editor is hidden. The list of available variables opens. Click the desired variable to insert it.
     To insert a widget, click the corresponding icon in the editor, or click the **Insert Widget** button if the editor is hidden. The **Insert Widget** pop-up window opens, where you need to take several steps to set the widget. When you are finished, click the **Insert Widget** button in the upper-right corner of the window.

3. Click the **Save** button in the upper-right corner of the page to save the template.

Message Queue Management

While adding the message to the queue, you have the option of specifying what type of message you will send, a push notification or an AirMail message.

To add messages to the sending queue:

1. Select **Mobile > Message Templates**.

2. For the desired message template in the **Action** column, select **Queue Message**. The **New AirMail Message Queue** page opens.

3. Specify the following:

    ❖ In the **Message Type** drop-down menu under Message Settings, select the type of the message you want to send. It can be **Push message** or **AirMail message**.

    Note: *For Android applications, only push notifications are available.*

    ❖ In the **Start Date** field, specify the start date and time for sending the message. You can type it manually or select from the calendar by clicking the calendar icon. If you leave **Start Date** empty, the message will be sent immediately after you finish configuration and click **Queue Message**.

    ❖ Under **Template,** specify the following:

        o In the **Push Title** field, you can edit the text of the push notification message, maximum 140 characters. If you intend to send a push notification, and have selected **Push message** in the **Message Type** drop-down menu, proceed to the step 4.

        o In the **Message Title** field, you can edit the title of the AirMail message, maximum 255 characters.

        o In the **Template Content** field, you can make changes in your message template. For more information about editing the template, see the last step of the procedure in "Creating a Message Template," page 449**.**

4. Click the **Queue Message** button in the upper-right to add the message to the queue. You are redirected to the AirMail Messages Queue page, the message is added to list with In Queue status.

To cancel the message sending, select **Cancel** in the **Action** column for this message. Canceled messages are not deleted and can be previewed.

To delete the message from the sending queue, select **Delete** in the **Action** column for this message.

A   Getting Help

The Magento software offers a variety of options and possibilities, but also has a learning curve. Magento provides several resources for getting help discovering Magento and using it daily to attain your eCommerce objectives.

You can start with the **Search** field at the top of the community site found at http://www.magentocommerce.com, which provides results from the Magento forum, knowledge base, wiki, groups, and other resources.

If you are unable to find answers to your questions, try posting your question in the Magento Answers site and the Magento forums, where thousands of participants help each other with Magento issues.

To access Magento Answers:

Go to http://www.magentocommerce.com/answers/ and log in or using the user name and password that you created before downloading Magento. (If you do not have a Magento user name, you can register for one from this page.) Follow the onscreen directions to ask your question.

To access Magento forums:

Go to http://www.magentocommerce.com/boards and log in using the user name and password that you created before downloading Magento. Choose a forum that best matches your question.

If you found the answer yourself and were unable to find it elsewhere, please share it with others. Use the wiki or forums to write and share it.

There are also several other community features in addition to the forums described above that enable the exchange of ideas and help. They are:

- ❖ **Groups:** Link community members working on or interested in specific subjects, such as Designing For Magento and Drop Shippers.
- ❖ **Chat**: Provides a real time discussion with Magento community members.
- ❖ **Wiki**: Provides community editable pages for sharing ideas and findings, tutorials and information.

The following lists other resources available to help you use get the most out of Magento:

Knowledge Base

The Magento knowledge base is a Wiki that provides instructions published by Magento or community members in the form of guides and "how-to" articles.

At: http://www.magentocommerce.com/knowledge-base

Webinar Archive

Up-to-date webinars are provided by Magento in which you can learn real-world tips and tricks in order to get the most out of your stores and promotions.

At: http://www.magentocommerce.com/media/webinar-archive

Screencasts

Screen casts are presentation videos that can guide you through many of the Magento features.

At: http://www.magentocommerce.com/media/screencasts

Designer's Guide to Magento

The Designer's Guide to Magento provides information for designers describing Magento concepts and design implementation in Magento.

At: http://www.magentocommerce.com/design_guide

Magento Blog

The Magento Blog contains fresh updates describing new Magento releases, interesting showcases and events.

At: http://www.magentocommerce.com/blog

Magento on Twitter

You can keep up with Magento events and announcements by following Magento on Twitter.

At: http://twitter.com/magento

Technical Documents and Magento Core API

These provide developers with information on how to develop Magento.

At: http://docs.magentocommerce.com/

Here you can find information about all Magento classes and functions.

At: http://www.magentocommerce.com/support/magento_core_api

Here you can find information and usage examples for calling Magento using an API. This enables easier integration of Magento with existing systems.

B   Glossary

The following is a complete list of Magento terms and definitions.

above the fold	The web page content that is immediately visible in the browser window; section of a page that is displayed without the need to scroll.
Admin panel	Administrative panel; back office; private section of store where orders, catalog, content, and configurations are managed.
alt text	The text that is displayed in place of an image when the user is unable to view the image.
anchor text	The visible text that is anchored to another page or page section; the literal text of a hyperlink.
API	Application Program Interface: A software interface that lets third-party applications read and write to a system using programming language constructs or statements.
attribute	A characteristic or property of a product; anything that describes a product. Examples of product attributes include color, size, weight, and price.
authorization	To give a service permission to perform certain actions or to access resources.
average inventory cost	Product price, less coupons or discounts, plus freight and applicable taxes. The average is determined by adding the beginning cost of inventory each month, plus the ending cost of inventory for the last month of the period.
banner	Promotional graphics displayed either horizontally on the top of a web page or vertically on the left or right margins. Website advertisements are often displayed as banners.

B2B	Business to Business: A type of business transaction between two business entities that are not the final consumers of the goods or services.
B2C	Business to Consumer: Business transactions between a business entity and a consumer.
batch processing	To perform a task or make a change to multiple items all at once, without manual repetition.
bounce rate	The percentage of visitors to your site that leave without viewing any other pages.
brand	A unique identity that defines a particular product or group of products.
breadcrumb	A navigation aid that helps the user to keep track of their location within your store.
brick and mortar	A retail business with a permanent physical location, as opposed to being entirely virtual.
broken link	A hyperlink that fails to send the user to its intended web page.
canonical URL	The canonical meta tag redirects search engines to the correct URL, when seemingly duplicate content is encountered on the server.
capture	The process of converting the authorized amount into a billable transaction. Transactions cannot be captured until authorized, and authorizations cannot be captured until the goods or services have been shipped.
cardholder	A person who opens a credit card account and is authorized to make purchases.
category	A set of products that share particular characteristics or attributes.

conversion	A marketing term that indicates a goal has been reached. If the goal is to sell a product, conversion is reached when a visitor to your site becomes a buyer.
conversion rate	The percentage of visitors who are converted into buyers.
checkout process	The process of gathering the payment and shipping information that is necessary to complete the purchase of items in the shopping cart. In the final step, the customer reviews and places the order.
CMS	Content Management System: A software system that is used to create, edit, and maintain content on a website.
CSV	Comma Separated Values: A type of file used to store data values which are separated from each other by commas.
CVM	Card Verification Method: A way to verify the identity of the customer by confirming a 3-digit or 4-digit credit card security code with the payment processor.
credit memo	A document issued by the merchant to a customer to write off an outstanding balance because of overcharge, rebate, or return of goods.
CSS	Cascading Style Sheets: A style sheet language that controls the appearance of HTML documents; a way to control the appearance of text, graphics, lists, links, and all other elements on a web page.
domain	The address of a website on the web; what the customer types in their browser address bar to access the store.
double opt-in	The process for subscribing email recipients by requiring them to take a secondary step to confirm that they want to receive emails.

dynamic content	A web page that displays different content depending on the user request.
keyword	A term or phrase used in a search to filter for content that is of significant importance to that term or phrase.
FAQ	Frequently Asked Questions.
favicon	Short for favorites icon; a 16x16 or 32x32 pixel icon associated with a website; is displayed in the browser address bar and next to the site name in a bookmark list.
FOB	Freight On Board: A shipping term indicating who is responsible for paying transportation charges.
fulfillment	The process of managing customer shipments.
gateway	A transaction bridge between a customer and a payment processing service that is used to transfer money between the customer and the merchant.
gross margin	The difference between the cost and price of a product.
home page	The first home page a visitor sees when they access your website URL. Considered the most important page on your website according to search engine indexers.
HTML	HyperText Markup Language: A standard for tagging and structuring text, images, videos, and other media on a web page.
invoice	A document that provides a detailed description of a purchase, including products purchased, quantity, price, shipping cost, sales tax, and total.
JavaScript	A scripting language used with HTML to produce dynamic effects and interactions on web pages.

landing page	A page on your site where a visitor arrives after clicking a link or advertisement.
link juice	The value and authority transferred from one web page to another via hyperlinks (or links). Link juice affects a website's page rank, a factor used to rank a search engine results page.
locale	A set of configurations that defines the user's language, country, tax rate, and other settings.
login	The process of signing into an online account.
markdown	The amount subtracted from the original price of a product.
markup	A percentage added to the cost of an item to determine the retail price.
merchant account	An account with a bank or financial institution that makes it possible to accept credit card transactions.
meta tags	Information in a web page that is not displayed on the page itself, but is used by search engines to determine the page title, description, and page keywords.
navigation	The primary group of web page links that a customer uses to navigate around the website; the navigation links to the most important categories or pages on an online store.
opt-in	The process by which a user consents to receiving emails from an online store.
packing slip	A document that is usually included in a shipped package that describes the contents. Packing slips do not include financial or account information.
payment gateway	A service that charges your customers' credit cards and sends the funds to your merchant account, for deposit into your business bank account.

PCI	Payment Card Industry: Refers to debit and credit cards and their associated businesses.
purchase order (PO)	A written sales contract between a buyer and seller that describes the merchandise or service to be purchased from a vendor.
privacy policy	A document that explains the merchant's policies for handling customer information.
redirect	A method used to alert browsers and search engines that a page has been moved. 301 Redirect: Permanent change 302 Redirect: Temporary change
relative link	A hyperlink that includes only the address of the linked page that is relative to the linking page, rather than the full URL.
return policy	A document that explains the merchant's rules regarding the return of products by customers.
robots.txt	A file placed on a website that tells search engine crawlers which pages not to index.
RSS feed	Really Simple Syndication: A technology that creates web content syndication and allows web users to subscribe to product feeds, websites, and blogs.
SaaS	Software as a Service: A software delivery model where the vendor provides the software and hosting environment, and customers pay for the service by subscription or per use.
security certificate	Information that is used by the SSL protocol to establish a secure connection.
SEO	Search Engine Optimization: The process of improving a website's search engine rankings in order to increase valued visitors.

settlement	Settlement occurs when the acquiring bank and the issuer exchange funds and the proceeds are deposited into the merchant account.
shipping carrier	A company that transports packages. Common carriers include UPS, FedEx, DHL, and USPS.
shopping cart	A grouping of products that the customer wishes to purchase at the end of their shopping session.
Site map	A page that provides search engines with an efficient, alternate route through your site.
SKU	Stock Keeping Unit: A number or code assigned to a product to identify the product, options, price, and manufacturer.
splash page	A promotional page with a product or advertisement; normally displayed before the home page.
SSL certificate	A validation and security mechanism that identifies the merchant and encrypts credit card and other sensitive information.
static content	Content that does not change frequently. *See also* dynamic content.
static block	A fixed content block that can be displayed on various content pages in a store.
theme	A package that contains graphics and appearance information, and customizes the look and feel of the store.
transactional email	A notification email sent to the customer when a transaction is processed.
URL	Uniform Resource Locator: The unique address of a page on the internet.
usability	Refers to the degree to which a product or service is easy to use by its customers.

WYSIWYG   What You See Is What You Get: An editor that
                 displays formatted text as it will appear in its final
                 published form.

XML   Extensible Markup Language: A markup format
                 derived from SGML that it used to format information
                 for publication and distribution.

C   System Requirements

Magento must be installed on a web server in a LAMP environment: Linux, Apache, MySQL, and PHP. At the base level, Magento requires the following software.

Operating Environment (LAMP)

Supported Operating Systems (Unix only)

❖ Linux x86, x86-64

Supported Web Servers:

❖ Apache 1.3.x

❖ Apache 2.0.x

❖ Apache 2.2.x

MySQL:

❖ 4.1.20 or newer

❖ InnoDB storage engine

PHP Compatibility:

❖ PHP v5.2.13 or later

❖ Required extensions:

- o   PDO_MySQL
- o   simplexml
- o   mcrypt
- o   hash
- o   GD
- o   DOM
- o   iconv
- o   curl
- o   SOAP (if Webservices API is to be used)

❖ Configuration requirements:

- o   Safe_mode off
- o   Memory_limit recommended 512MB (minimum 256MB)

Basic Configuration Requirements

SSL:

❖ If HTTPS is used to work in the admin, SSL certificate should be valid. Self-signed SSL certificates are not supported.

Mail server:

❖ SMTP server or Sendmail-compatible Mail Transfer Agent (MTA)

Server privileges:

❖ Ability to run scheduled jobs (crontab) with PHP 5

❖ Ability to override options in .htaccess files

❖ We also recommend the use of APC as a bytecode cache for performance improvements. You can find it in the PECL archives here: http://pecl.php.net/package/APC. Other bytecode cache systems are not supported at this time.

Requirements for Enterprise v1.8 Encoded only:

❖ ionCube loader v3.1.23 or above

Supported Browsers for Backend Admin

❖ Adobe Flash browser plug-in **must** be installed

❖ Mozilla Firefox 3.5 and above

❖ Apple Safari 2.x and above (Mac only)

❖ Microsoft Internet Explorer 7 and above

❖ Google Chrome 7 and above

D   Magento Payment Bridge

Magento Payment Bridge is a secure payment application that helps merchants in meeting PCI compliance. It is installed separately from Magento Enterprise Edition, making PCI compliance easier. Magento Payment Bridge is provided with a subscription to Magento Enterprise Edition.

All sensitive credit card data that is received from customers during the checkout process is put into the token in Magento Payment Bridge and is stored there, encrypted, until the payment system returns the successful result of a payment transaction. After the transaction is completed, the payment data within Magento Payment Bridge is cleaned from the token, which remains in the database during a specific period of time. With Magento Payment Bridge, no sensitive credit card data is passed over or stored in Magento, which guarantees the security of customers' credit card data.

Enabling Payment Bridge

Before enabling the Payment Bridge functionality in the Magento backend configuration, your Magento Payment Bridge administrator must create a merchant account and configure payment gateways in the Magento Payment Bridge payment application. The Magento Payment Bridge administrator provides the merchant with the merchant account information required for the authorization by the Payment Bridge.

Perform the following steps to enable and configure the Payment Bridge functionality in the Magento backend:

1. Log in to the Magento admin panel.

2. Navigate to **System** > **Configuration**.

3. In the **Current Configuration Scope** field in the upper-left corner of the page, leave **Default Config** or select your website. It is recommended that you enable and configure Payment Bridge on the global level if your business logic allows.

4. In the left column under SALES, click **Payment Methods** and expand the **Payment Bridge** field set.

5. Set the **Enabled** field to Yes.

   Note: *The functionality will be applied only if the Magento Payment Bridge application is installed and configured with the merchant account and required payment gateways. You need to contact your Magento Payment Bridge administrator to perform necessary configurations.*

6. In the **Merchant Code** field, enter the merchant ID specified by the Magento Payment Bridge administrator during the merchant account creation.

7. The merchant key (either entered by the Magento Payment Bridge administrator, or automatically generated by the payment application during the creation of a merchant account) must be specified in the **Merchant Key** field. The merchant key is a unique code that helps secure the connection to the Payment Bridge.

8. In the **Gateway Basic URL** field, specify the URL to connect to the Payment Bridge payment application.

9. The data transfer key, which is generated during the merchant account creation in Magento Payment Bridge, must be specified in the **Data Transfer Key** field. The data transfer key encrypts any data that is transferred between the merchant and the Payment Bridge.

10. The **Magento Unique Identifier** field (present only if **Current Configuration Scope** is set to **Default Config**) is used if you have several instances of Magento using the same Payment Bridge merchant account. In this field you can enter the identifier for the current Magento instance. Assigning identifiers is essential if your websites that are powered by different Magento instances use saved payment methods, such as Authorize.Net CIM.

11. In the **Debug** field, specify whether data messages that are sent to the payment system and received from it are written into the system log file. See Figure 316.
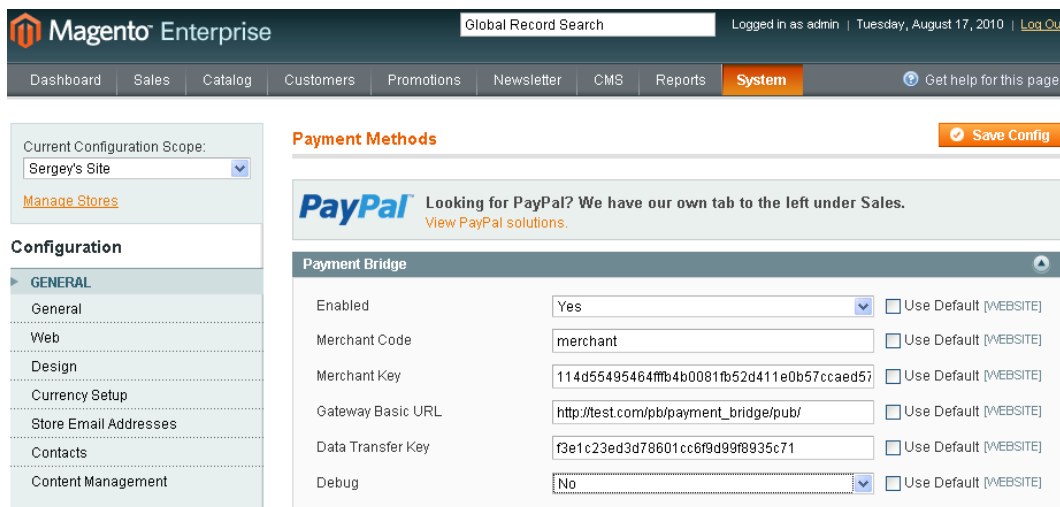
Figure 316. Enabling Payment Bridge Functionality

12. To save your changes, click **Save Config**, and proceed to configure payment methods that will work with the Payment Bridge payment application.

Payment Gateways Supported by Magento Payment Bridge

The Magento Payment Bridge payment application supports the following payment methods (which are integrated with external payment gateways). Some of the methods can work with or without Payment Bridge.

❖ Integration with PayPal:

  o   Website Payments Pro

  o   Website Payments Pro Payflow Edition

  o   Payflow Pro Gateway

❖ Integration with Authorize.Net (Authorize.Net CIM works only with Payment Bridge)

❖ Integration with Braintree (works only with Payment Bridge)

❖ Integration with CyberSource (works only with Payment Bridge)

❖ Integration with DIBS (works only with Payment Bridge)

❖ Integration with eWAY Direct Payments (works only with Payment Bridge)

❖ Integration with First Data Global Gateway (works only with Payment Bridge)

❖ Integration with Ogone Direct Link (works only with Payment Bridge; 3D Secure available)

❖ Integration with Paybox Direct (works only with Payment Bridge)

❖ Integration with Payone.de (works only with Payment Bridge; available only if your base currency is euros)

❖ Integration with PSiGate (works only with Payment Bridge)

❖ Integration with Sage Pay Direct (works only with Payment Bridge)

❖ Integration with WorldPay (works only with Payment Bridge)

All methods except PayPal Payflow Pro Gateway require having a merchant account in the corresponding payment service provider.

Most of the listed payment methods are available "out-of-the-box" in Magento Enterprise Edition with Magento Secure Payment Bridge installed, enabled, and properly configured.

The following methods are not included in Magento Enterprise Edition 1.12 with Magento Secure Payment Bridge version 1.11.18. These methods are available for download from support accounts on magentocommerce.com as an individual patch:

❖ Integration with PSiGate

❖ Integration with WorldPay

❖ Integration with DIBS

❖ Integration with Sage Pay

Payment Services Supported by Magento Payment Bridge

Magento Payment Bridge supports the following payment services:

❖ 3D Secure Credit Card Validation by Cardinal Centinel

❖ Kount fraud detection service; if enabled, this service is automatically used for all payments conducted via Payment Bridge

3D Secure Credit Card Validation by Cardinal Centinel

Cardinal Centinel 3D secure credit card validation can be used for the following payment methods, if they are configured to use Payment Bridge:

- ❖ Authorize.Net
- ❖ PayPal Website Payments Pro
- ❖ PayPal Website Payments Pro Payflow Edition
- ❖ PayPal Payflow Pro Gateway

Note: Sage Pay Direct and Ogone Direct Link payment gateways use their own 3D secure credit card validation services, which are configured during the payment gateway configuration in the Payment Bridge application.

Cardinal Centinel 3D secure credit card validation payment service is enabled and configured in the Magento Payment Bridge payment application. To use Cardinal Centinel 3D secure credit card validation payment service, you must have an account in Cardinal Centinel system.

Kount Fraud Detection Service

Kount fraud detection service is enabled and configured in the Magento Payment Bridge payment application. When the service is enabled, it is used for all payments conducted via Payment Bridge.

To use Kount fraud detection service, you need to have an account in the Kount system, The set of rules for credit card validation is created in the Kount agent web console. For each transaction, the Kount system sends one of the following responses about the transaction status:

- ❖ Approve
- ❖ Review
- ❖ Escalate
- ❖ Decline

If a Review or Escalate response is received, the transaction is marked with a "Suspected Fraud" comment in the Magento Admin Panel. This comment is displayed in the Comments History section on the Order View page of the corresponding order, which you can view by navigating to **Sales** > **Orders**. If Kount declines the transaction, the corresponding order is not created in Magento and the transaction is not completed. In all other cases the status of a transaction assigned by Kount does not influence the transaction itself; it serves only as an indicator for the merchant.

Functionality Overview: Payment Methods Working via Payment Bridge

The following table presents the functionality matrix for payment methods which work via Payment Bridge.

Payment method	Partial capture online (same for offline)	Full refund online from the Invoice page	Partial refund online from the Invoice page (same for offline)	Partial refund offline from the Order page
PayPal Payflow Pro Gateway	no	yes	no	no
PayPal Website Payments Pro Payflow Edition	yes	yes	yes	yes
PayPal Website Payments Pro	yes	yes	yes	yes
Authorize.Net	no	yes	yes	yes
Braintree	no	yes	yes	yes
CyberSource	no	yes	no	no
DIBS	no	yes	yes	yes
eWAY Direct	no	no	no	yes
First Data Global Gateway	no	yes	no	no
Ogone Direct Link	yes	yes	yes	yes
Paybox Direct	no	no	no	yes
Payone.de	no	yes	no	no
PSiGate	no	yes	yes	yes
Sage Pay Direct	yes	yes	yes	yes
WorldPay	no	yes	yes	yes

Full capture (capturing the entire order total) is available both ways, online and offline (except for eWAY Direct) for all listed payment methods.

Online refund from the Order page is not available for any of the methods listed in the table.

Full offline refund is available for all payment methods.

Configuring Payments Methods to Use Payment Bridge

For each payment method that uses Payment Bridge, enabling/disabling and configuring is a two-step procedure (the order is arbitrary):

❖ Enabling/disabling and configuring the method in Payment Bridge (via SSH client). Payment gateway credentials are entered during this configuration.

❖ Enabling/disabling and configuring the method in the Magento admin panel.

For details about step 1, refer to Magento Payment Bridge PA-DSS Implementation Guide.

The following sections describe step 2, enabling and configuring payment methods in Magento.

Payment Methods Working Only with Payment Bridge

For all payment methods that work only if Payment Bridge is enabled and configured, the options which should be configured in the Magento admin panel are largely the same, though the set of available options may differ. Configuring the Braintree payment method is described here and can be used as an example for configuring other payment methods.

To enable and configure the Braintree payment method in the Magento admin panel:

1. Navigate to **System** > **Configuration**.

2. In the **Current Configuration Scope** field in the upper-left corner of the page, leave **Default Config** or select the desired website.

3. In the left column under SALES, click **Payment Methods** and expand the **Braintree** field set.

4. In the **Enabled** field, select **Yes**.

5. In the **Title** field, specify the name of the payment method that will be displayed to the customer in the Payment Information section of the one-page checkout. This parameter can be set up for each store view.

6. In the **Payment Action** field, choose the way payments will be authorized in the Braintree payment system and the entities that will be created after the successful transaction in the backend as a result of the payment procedure. The following options are available:

   o **Authorization:** Funds on the customer's card are only authorized on the Braintree system, and only the order is created in the backend of your store. You can later create an invoice and conduct the capturing.

   o **Sale:** Funds on the customer's card are authorized and captured on the Braintree side, and as a result an order and an invoice are created in the backend of your store.

7. In the **Enable Vault** field, choose whether the Vault functionality will be enabled. This functionality enables the secure storage of customers' sensitive payment information on the Braintree side. After a credit card profile is saved, Magento/Payment Bridge will store the first 4 and last 6 digits of the card number. Thus, the tokens will be generated and used to charge the customers. Other information, in particular, customers' addresses, **could be stored in the vault as well.**

8. In the **Sort Order** field, decide what will be the position of the method in the list of available payment methods displayed to customers during checkout.

9. To save the configuration, click **Save Config**.

Payment Methods for which Payment Bridge Usage Is Optional

For all payment methods which can work both ways (through Payment Bridge and directly with payment gateways), the options which should be configured in the Magento admin panel are largely the same, (though the set of available options may differ). Configuration of the Authorize.Net payment method is described here and can be used as an example for configuring other payment methods.

To enable and configure the Authorize.Net payment method to use Payment Bridge in the Magento admin panel:

1. Navigate to **System** > **Configuration**.

2. In the **Current Configuration Scope** field in the upper-left corner of the page, leave **Default Config** or select the desired website.

3. In the left column under SALES, click **Payment Methods** and expand the **Authorize.Net** field set.

4. In the **Enabled** field, select **Yes**.

5. In the **Use via Payment Bridge** field, select **Yes**.

6. Configure other options as necessary.

7. To save your configuration, click **Save Config**.

> *Note: For payment methods that can work with or without Payment Bridge, the set of options available for configuring can differ depending on your choice concerning Payment Bridge usage. For example, for the Authorize.Net payment method, 3D Secure Card Validation is available only if the Payment Bridge is not used; Customer Information Manager is only available when Payment Bridge is used.*

E Country-Specific Lists of PayPal Methods Integrated with Magento

The following PayPal payment methods are available according to merchant location.

United States

- ❖ PayPal Payments Advanced (Includes Express Checkout)+
- ❖ PayPal Payments Pro (Includes Express Checkout)
- ❖ PayPal Payments Standard+
- ❖ PayPal Payflow Pro (Includes Express Checkout)-
- ❖ PayPal Payflow Link (Includes Express Checkout)
- ❖ PayPal Express Checkout

Canada

- ❖ PayPal Payments Pro (Includes Express Checkout)
- ❖ PayPal Payments Standard
- ❖ PayPal Payflow Pro
- ❖ PayPal Payflow Link (Includes Express Checkout)
- ❖ PayPal Express Checkout

Australia

- ❖ PayPal Payments Standard
- ❖ PayPal Payflow Pro
- ❖ PayPal Payments Pro Hosted Solution
- ❖ PayPal Express Checkout

United Kingdom

- ❖ PayPal Express Checkout
- ❖ PayPal Payments Standard
- ❖ PayPal Payments Pro Payflow Edition (Includes Express Checkout)
- ❖ PayPal Payments Pro Hosted Solution

Japan

- ❖ PayPal Express Checkout
- ❖ PayPal Payments Standard
- ❖ PayPal Website Payments Plus (PayPal Payments Pro Hosted Solution)

France

❖ PayPal Express Checkout

❖ PayPal Payments Standard

❖ PayPal Integral Evolution (PayPal Payments Pro Hosted Solution)

Italy

❖ PayPal Express Checkout

❖ PayPal Payments Standard

❖ PayPal Pro (PayPal Payments Pro Hosted Solution)

Spain

❖ PayPal Express Checkout

❖ PayPal Payments Standard

❖ PayPal Pasarela integral (PayPal Payments Pro Hosted Solution)

Hong Kong

❖ PayPal Express Checkout

❖ PayPal Payments Standard

❖ PayPal Payments Pro Hosted Solution

New Zealand

❖ PayPal Express Checkout

❖ PayPal Payments Standard

❖ PayPal Payflow Pro

Others

❖ PayPal Express Checkout

❖ PayPal Payments Standard

F   Shipping Methods and Package Types Available in Magento

The tables below list the shipping methods that are available for each of the supported shipping carriers and package types that are supported by each of the shipping methods.

There are additional notes and assumptions regarding the information provided:

❖ Custom packaging has been added to each shipping method of each shipping carrier.

❖ Shipping methods are divided into U.S. and International. Those that are marked as "U.S." are for US domestic shipments only. Those that are marked as "International" can be those shipped from the U.S. to other countries, from other countries to the U.S. and within countries other than the U.S. FedEx does not offer domestic shipments for countries other than the U.S. at this time. USPS offers shipments from the U.S. only (both domestic and international).

❖ For international shipping methods available package types sometimes depend on the origin country (U.S. or other). The currently available package types are filtered according to the list of packages acceptable for shipping methods if a shipment originates from the U.S. For shipments originating from countries other than the U.S., the full list of package types available for the selected shipping method is provided.

Table 1. FedEx: U.S. shipping methods and package types

Shipping method	Package type
FedEx First Overnight, FedEx Priority Overnight, FedEx Standard Overnight, FedEx 2Day	FedEx Envelope
	FedEx Pak
	FedEx Box
	FedEx Tube
	Your Packaging
FedEx Express Saver	FedEx Envelope
	FedEx Pak
	Your Packaging
FedEx Ground, FedEx Home Delivery, FedEx SmartPost	Your Packaging

Table 2. FedEx: International shipping methods and package types

Shipping method	Package type
FedEx International First	FedEx Envelope
	FedEx Pak
	FedEx Box
	FedEx Tube
	Your Packaging
FedEx International Priority	FedEx Envelope
	FedEx Pak
	FedEx Box
	FedEx 10 kg Box and FedEx 25 kg Box
	FedEx Tube
	Your Packaging
FedEx International Ground	Your Packaging
FedEx Europe First Priority	FedEx Envelope
	FedEx Pak
	FedEx 10 kg Box and FedEx 25 kg Box
	Your Packaging

Table 3. UPS: U.S. shipping methods and package types

Shipping method	Package type
UPS Next Day Air Early AM, UPS 2nd Day Air, UPS Next Day Air, UPS 2nd Day Air AM	Small Express Box
	Medium Express Box
	Large Express Box

Shipping method	Package type
	UPS Express Tube
	UPS Pak
	UPS Letter
	Your Packaging
UPS 3 Day Select, UPS Ground	Your Packaging

Table 4. UPS: international shipping methods and package types

Shipping method	Package type
UPS Worldwide Express, UPS Worldwide Express Plus, UPS Worldwide Saver, UPS Worldwide Expedited	Small Express Box
	Medium Express Box
	Large Express Box
	UPS Express Tube
	UPS 10kg Box
	UPS 25kg Box
	UPS Pak
	UPS Letter
	Customer Packaging
UPS Worldwide Expedited	Small Express Box
	Medium Express Box
	Large Express Box
	UPS Express Tube
	UPS Pak

Shipping method	Package type
	Customer Packaging

Table 5. USPS: international shipping methods and package types

Shipping method	Package type
Express Mail International Flat Rate Envelope, Express Mail Flat Rate Envelope Hold For Pickup	Express Mail® International Flat Rate Envelope
Priority Mail International Large Flat Rate Box	Priority Mail International Large Flat Rate Box
Priority Mail International Medium Flat Rate Box	Priority Mail International Medium Flat Rate Box
Priority Mail International Small Flat Rate Box	Priority Mail International Small Flat Rate Box
Priority Mail International Flat Rate Envelope	Priority Mail International Flat Rate Envelope
Global Express Guaranteed (GXG)	Large Package/Non-Rectangular (Regular and Medium)
	Variable
USPS GXG Envelopes, Express Mail International, Priority Mail International, First-Class Mail International Package	Large Package/Rectangular (Regular and Medium)
	Large Package/Non-Rectangular (Regular and Medium)
	Variable
First-Class Mail International Large Envelope	Variable

Table 6. DHL: shipping methods and package types

Shipping method	Package type
Express, Express International	Package
	Letter

G   VAT ID Validation

All editions of Magento include a value-added tax (VAT) ID validation feature. The feature is intended for B2B merchants from the European Union (EU), where VAT is charged if a merchant and a customer are in the same country, and VAT is not charged if a merchant and a customer are in different countries within EU and both parties are EU-registered business entities.

VAT identification number (VAT ID) Validation enables store administrators to create more than one default customer group, which will be automatically assigned to each customer during account creation, address creation or update, and checkout according to the customer's VAT ID, and the customer's and merchant's location countries. This feature enables merchants to create different tax rules for intra-country (domestic) and intra-EU sales, and to apply the corresponding VAT amount automatically.

> *Note:* *VAT-related tax rules do not influence other tax rules and do not prevent applying other tax rules where applicable. Only one tax rule can be applied at a given time.*

Magento performs VAT ID validation using the web-services of the European Commission server: http://ec.europa.eu/taxation_customs/vies/.

VAT ID Validation Quick Reference

The following table lists the main tasks concerned with the VAT ID Validation feature and the locations, where they can be performed in the Admin Panel.

TASK	ADMIN MENU	SCOPE
Create customer groups, which can be used as default for the VAT ID Validation functionality	**Customers** > **Customer Groups**	
Enable the VAT ID Validation functionality	**System** > **Configuration** > CUSTOMERS > **Customer Configuration** > **Create New Account Options**	Store view
o Set the default groups for customers from your country and from other EU countries	**System** > **Configuration** > CUSTOMERS >**Customer Configuration** > **Create New Account Options**	Store view
o Set your country and VAT ID	**System** > **Configuration** > GENERAL > **General** > **Store Information**	Store view
o Modify Magento list of EU countries	**System** > **Configuration** > GENERAL > **General** > **Countries Options**	Global
o Edit the VAT Number customer address attribute	**Customers** > **Attributes** > **Manage Customer Address Attributes**	Global
o Create tax rates and tax rules for domestic, intra-EU and other VAT-related customer groups	**Sales** > **Tax**	

For assigning groups to customers, the default customer's address (billing or shipping) for tax calculation is used; the setting is configured under **System** > **Configuration** > CUSTOMERS > **Customer Configuration** > **Create New Account Options** > **Tax Calculation Based On**).

If the VAT ID Validation feature is enabled, you can still choose not to apply it for a certain customer by selecting the correspondent check box on the Customer Information page under **Customers** > **Manage Customers**.

Configuring VAT ID Validation

Configuring the VAT ID Validation includes these steps:

1. Creating VAT-related customer groups.

2. Creating tax classes, tax rates and tax rules.

3. Configuring the VAT ID Validation settings.

4. Setting your VAT ID and location country.

5. Modifying the list of EU member countries used by Magento. This step is only necessary if the EU gets new members or some countries leave the EU.

Creating the VAT-Related Customer Groups

VAT ID Validation functionality automatically assign one of the four default customer groups to customers according to VAT ID validation results:

❖ Domestic

❖ Intra-EU

❖ Invalid VAT ID

❖ Validation error.

You can create new customer groups to be used in the VAT ID Validation functionality or use existing groups, if they comply with your business logic. Customer groups are created under **Customers** > **Customer Groups**.

When configuring the VAT ID Validation functionality, you will need to assign each of the created customer groups as a default for customers with appropriate VAT ID validation results. For details see the Enabling and Configuring the VAT ID Validation Functionality section further.

Configuring the VAT-Related Tax Rules

The VAT ID Validation functionality was implemented to facilitate the VAT applying for EU B2B merchants. In Magento, taxes are applied using the tax rules mechanism. Each tax rule is defined be three entities:

❖ Customer Tax Classes

❖ Product Tax Classes

❖ Tax Rates.

To use the VAT ID Validation functionality effectively, you need to create the appropriate tax rules.

The following table contains the minimal list of tax rules which must be created to use the VAT ID Validation functionality.

Tax rule #	Customer Tax Class	Product Tax Class	Tax Rate
1	• A class for domestic customers • A class for customers with invalid VAT ID • A class for customers, for whom VAT ID validation failed	A class for products of all types, except bundle and virtual	VAT rate of the merchant's country
2	A class for intra-union customers	A class for products of all types, except downloadable and virtual	VAT rates for all EU countries, except merchant's country. Currently this rate is 0%
3 (required only if you sell products of bundle or virtual type)	• A class for domestic customers • A class for customers with invalid VAT ID • A class for customers, for whom VAT ID validation failed	A class for downloadable and virtual product types	VAT rate of the merchant's country
4 (required only if you sell products of bundle or virtual type)	A class for intra-union customers	A class for downloadable and virtual product types	VAT rates for all EU countries, except merchant's country. Currently this rate is 0%

In the Magento Admin Panel, all tax rule related entities, including tax rules, tax rates, product tax classes and customer tax classes, are managed under **Sales** > **Tax**; tax classes are assigned to customer groups under **Customers** > **Customer Groups** > *%customer group%.*

Enabling and Configuring the VAT ID Validation Functionality

To enable VAT ID and set default groups:

1. Log in to the Magento Admin Panel.

2. Navigate to **System** > **Configuration** > CUSTOMERS > **Customer Configuration**.

3. In the **Current Configuration Scope** field in the upper-left corner leave **Default Config** or select the desired store view.

4. Expand the **Create New Account Options** field set.

5. In the **Enable Automatic Assignment to Customer Group** field, select **Yes**. The following fields appear:

   ❖ **Tax Calculation Based On:** Choose whether VAT calculation will be based on customer's shipping or billing address. If the customer does not have a shipping address (that is, the customer has only now registered and the system does not yet take into account the customer's shipping address), the Default Tax Destination Calculation address will be used for tax calculation to be displayed to the customer.

   *Important Note: If the **Tax Calculation Based On** is set to **Shipping Address**, then Magento will use billing address for VAT calculation, if a customer only buys downloadable and/or virtual products.*

   ❖ **Group for Valid VAT ID – Domestic:** Choose a customer group, which is automatically assigned to customers coming from your country and whose VAT ID is valid. See "Configuring Additional Settings for the VAT ID Validation Feature," page480, for details about setting your location country.

   ❖ **Group for Valid VAT ID - Intra-Union** - Choose a customer group, which is automatically assigned to customers coming from EU countries other than yours, and whose VAT IDs are valid. See "Configuring Additional Settings for the VAT ID Validation Feature," page 480, for details about where your location country is set.

   ❖ **Group for Invalid VAT ID:** Choose a customer group, which is automatically assigned to customers whose VAD ID is invalid.

   ❖ **Validation Error Group:** Choose a customer group, which is automatically assigned to customers for whom the VAT ID validation failed.

   ❖ **Validate on Each Transaction:** Choose whether VAT ID validation will be performed each time during order creation even if a previously saved customer address with validated VAT ID is used. The option applies to one-page checkout in the frontend only. If a new customer address is used (including guest checkout or if a customer has no address assigned to their account), then the validation is performed irrespective of this setting. During order creation in the Admin Panel, no automatic validations are performed.

❖ **Default Value for Disable Automatic Group Changes Based on VAT ID** (available only if **Default Config** is selected in **Current Configuration Scope**): Choose whether the automatic change of customer group based on VAT ID will be enabled or disabled by default. The setting can be overridden on the product level. The setting influences the system behavior in the following situations:

    i.   The VAT ID of the customer's default address or the whole default address changes.

    ii.   Customer group change was emulated during the checkout for a registered customer who had no previously saved address or for a customer, who registered during the checkout.

If the automatic group change is enabled, then in the first case the customer group changes automatically, and in the second case the temporarily emulated customer group is assigned to customer.
If the automatic group change is disabled, the customer group that is assigned never changes, unless an administrator changes it manually.

❖ **Show VAT Number on Frontend:** Choose whether the field for entering and storing the VAT ID number will be visible in the frontend.

6. To save the settings, click **Save Config**.

If the VAT ID Validation feature is disabled (the **Enable Automatic Assignment to Customer Group** field set to **No**), then the system behavior is as usual, and the default customer group can be set in the **Default Group** field.

When the feature is enabled, the system does not automatically validate customer VAT IDs nor does it change customer groups.

Configuring Additional Settings for the VAT ID Validation Feature

To set your VAT ID and location country:

1. Navigate to **System** > **Configuration** > GENERAL > **General**.

2. In the **Current Configuration Scope** field, select the desired store view.

3. Expand the **Store Information** field set.

4. In the **Country** field, select your country.

5. In the **VAT Number** field, enter your VAT number. You can validate the entered value by clicking the **Validate VAT Number** button. The result of validation will be displayed immediately.

> **Note:** *If your VAT number is valid, then apart from validation result for each customer's VAT ID validation, the validation server will send to Magento the following additional information: VAT request identifier and VAT request date. If a customer's VAT validation is performed during checkout, then the VAT request identifier and VAT request date are saved in the Comments History section of the Order View page under **Sales** > **Orders** > (select appropriate order).*

6. To save the settings, click **Save Config**.

To modify the list of the countries that are EU members:

1. Navigate to **System** > **Configuration** > GENERAL > **General**.

2. In the **Current Configuration Scope** field, select the desired store view.

3. Expand the **Countries Options** field set.

4. In the **European Union Countries** field make the necessary changes in the list of countries that are EU members.

5. To save the changes, click **Save Config**.

VAT ID Validation Implementation Details: Customer Experience

Assigning Customer Groups Based on VAT ID Value During Registration

If the VAT ID Validation feature is enabled, after registration each customer is proposed to enter the VAT ID number. However only those who are registered VAT customers are expected to fill this field.

After a customer specifies the VAT number and other address fields, and chooses to save, the system saves the address and sends the VAT ID validation request to the European Commission server. According to the results of the validation, one of the default groups is assigned to a customer. This group can be changed if a customer or an administrator changes the VAT ID of the default address or changes the whole default address. And the group can be temporarily changed (group change will be emulated) in some cases during one-page checkout.

Applying and Assigning Customer Groups During Checkout

The system behavior concerned with the VAT ID validation and the customer group change during the checkout depends on how the **Validate on Each Transaction** and the **Disable Automatic Group Change** settings are configured. This section describes the implementation of the VAT ID Validation functionality for the checkout on the frontend.

In case a customer uses Google Express Checkout, PayPal Express Checkout or another external checkout method, when the checkout is performed completely on the side of the external payment gateway, the **Validate on Each Transaction** setting cannot be applied. Thus the customer group cannot change during checkout.

The Figure 317 illustrates the flow of VAT ID validation and customer group change during one-page checkout.
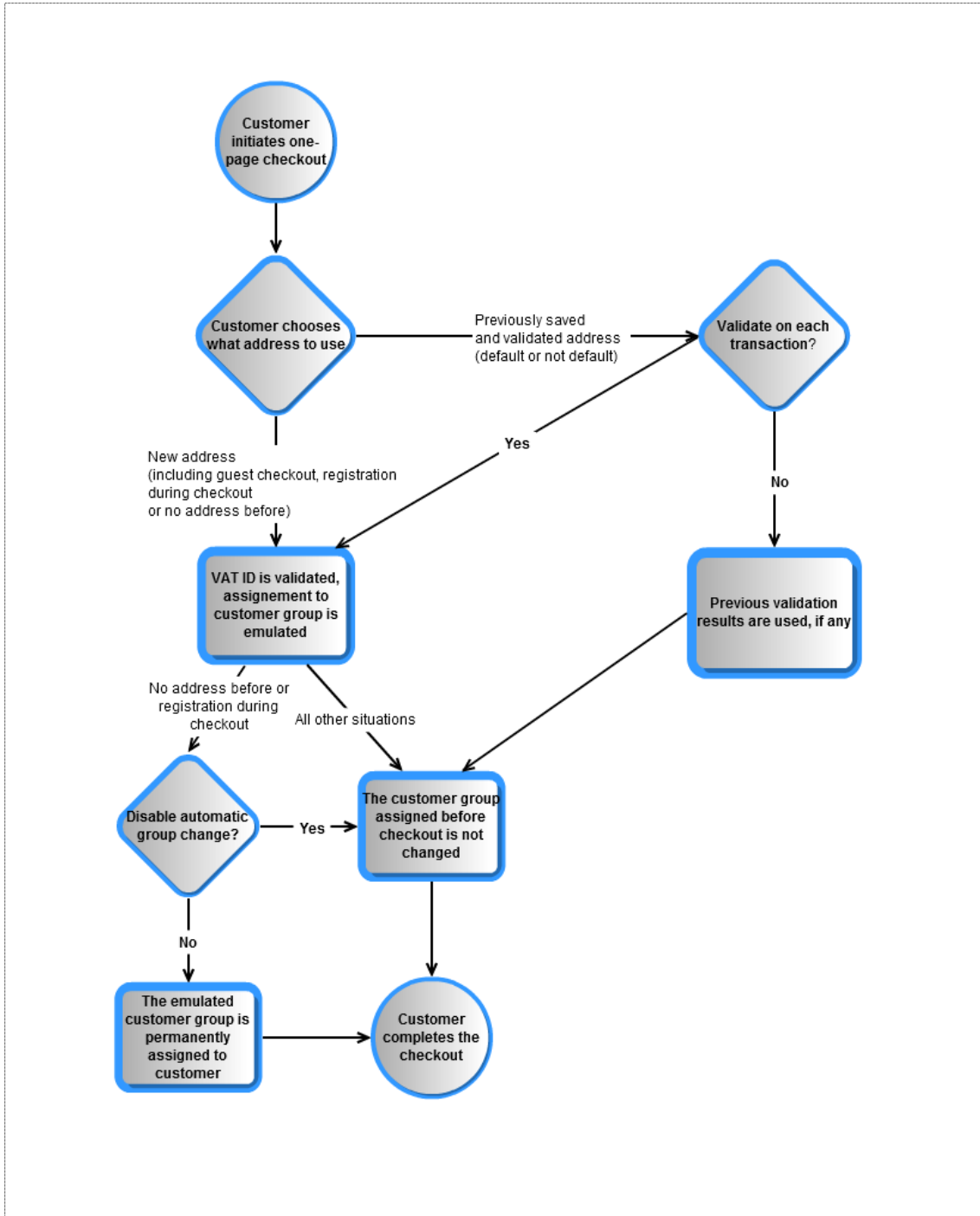
Figure 317. One-page Checkout with VAT ID Validation

VAT ID Validation Implementation Details: Admin Experience

The *VAT Number* Customer Address Attribute

Customer VAT ID value is stored in the **vat_id** customer address attribute. The default label of this attribute is **VAT number**. Customer address attributes are managed under **Customers** > **Attributes** > **Manage Customer Address Attributes**.

The **VAT number** field is always present in all shipping and billing customer addresses in the backend. It is not mandatory. Displaying the field in the frontend is configured in the **Show VAT Number in Frontend** field under **System** > **Configuration** > CUSTOMERS > **Customer Configuration** > **Create New Account Options**.

> *Note: For customers not from the EU countries, consider storing the VAT number (if any), in the existing **Tax/VAT Number** customer attribute to avoid any possibility of customer group change (whether persistent or emulation during checkout). It is recommended that you rename the **Tax/VAT Number** customer attribute to avoid confusion with the new **VAT Number** customer address attribute that is used for the VAT ID Validation functionality.*

Disabling Automatic Customer Group Change

When the VAT ID Validation functionality is enabled, the group of a customer can only be changed manually in the Admin Panel, no automatic changes of customer group can take place.

When the VAT ID Validation functionality is enabled, the system will automatically, permanently change a customer group in the following situations:

❖ The VAT ID of the customer's default address or the whole default address changes.

❖ The customer group change was emulated during the checkout for a registered customer who had no previously saved address, or a customer who registered during the checkout.

The automatic customer group change can be disabled by selecting the **Disable automatic group change** check box on the customer's page under **Customers** > **Manage Customers** > %customer% > **Account Information**. See Figure 318.

Figure 318. Disabling Automatic Group Change on Customer Level

Important Note: The setting does not influence the emulation of the customer group change during checkout.

The default value of the **Disable automatic group change** check box is set in the **Default Value for Disable Automatic Group Changes Based on VAT ID** field under **System > Configuration >** CUSTOMERS **> Customer Configuration > Create New Account Options**. The configuration setting is made on the global level. The default value applies to new customers and to customers whose records are available in the system when the VAT ID Validation functionality is enabled for the first time.

VAT ID Validation in Customer Accounts in the Admin Panel

When an administrator adds a new default address with a VAT ID to the account of a new or existing customer or changes the VAT ID of the existing default address, the system validates the VAT ID and assigns the appropriate customer group to the customer. The validation is performed after the **Save** or **Save and Continue** button is clicked.

Note: The system behavior is as described when the VAT ID Validation functionality is enabled and configured.

If you want to disable the automatic change of a customer group, select the **Disable automatic group change** check box on the **Account Information** tab of the Customer Information page.

VAT ID Validation During Order Creation in the Admin Panel

This section describes the system behavior when an admin creates a new order in the Admin Panel, with the VAT ID Validation functionality enabled and configured.

During order creation in the Admin Panel no VAT ID validation is performed automatically. To validate the VAT ID of the customer address, an administrator needs to click the **Validate VAT Number** button in the **Billing Address** or **Shipping Address** section of the Create New Order page. See Figure 319.

Figure 319. Validating Customer VAT ID During Order Creation in the Admin Panel

After the validation, the administrator receives a notification about the validation results in the form of a pop-up message.

A customer group, which should be assigned to a customer according to the validation results, can differ from the customer group that is currently assigned to the customer. In this case the system displays a dialog box suggesting that the administrator confirm or reject the group change emulation for the customer's current order. If the administrator confirms, then the group change is emulated for the current order and the corresponding VAT rate is applied (if the corresponding tax rule is configured in the system). The actual customer group of a customer is not changed.

If a new customer account is added during the order creation, and an administrator confirms using the customer group that corresponds to the VAT ID validation results, then after the order creation the customer account is saved in the system and the customer group that was used for order creation is assigned to it.

Index