

cactusoft

CactuShop
ASP Shopping Cart
Version 4.5

**User &
Developer
Manual**

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Introduction

CactuShop is an ASP shopping cart system based around established and widely adopted Microsoft technologies: Access or SQL Server for the database, and the IIS web server. The software is script-based and this, combined with a standard ODBC compliant database format, means it can be modified as much as required with commonly available development tools.

There are two versions of CactuShop – a free 'lite' version and the full licensed version. The differences are outlined further on, but this manual serves as a reference for both.

CactuShop has progressed much since the original version and runs hundreds of web sites around the world. Clients range from small sole traders to large high street retailers.

Although requiring an amount of ASP knowledge to modify, CactuShop isn't used just by egghead developers. This documentation and the body of material online about ASP has helped numerous customers achieve the e-commerce solution that instant-CD products cannot offer.

Don't be intimidated by the size of this manual. It's a reference work designed to outline how to set up the product and how the features work. You don't need to memorize everything but a broad understanding of how the software works will help as you work to create your online store with CactuShop.

Happy shop-building!

24/7 Online Help System

The quickest way to get answers to your CactuShop problems is by searching the online knowledgebase. 80% of the problems we get reported by email or phone are already dealt with in the knowledgebase.

www.cactushop.com/support/

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1 Overview

1.1 CactuShop Lite – Our Free Trial Version

Cactusoft produces two versions of CactuShop v4. The lite version is a cut down version with much of the security code removed, no license for live web use, and some of the features disabled. CactuShop Lite is available as a download from the CactuShop web site for the purposes of testing the basic code on your server, populating a database with products, creating the 'skin' template design and satisfying yourself that you have the technical capability to set up and create your web store.

1.1.1 Similarities between the lite and full versions

CactuShop Lite shares the following with the full version:

- a. database structure
- b. basic back end code for adding and updating products
- c. navigation
- d. basic basket functionality
- e. coding style
- f. platform and set up requirements

1.1.2 License agreement for CactuShop Lite

Please read the license agreement that comes with CactuShop Lite carefully. In particular, you may NOT do the following with CactuShop Lite:

- a. run any of the Cactusoft copyrighted code on a live web site other than as temporary trial development version
- b. remove copyright messages or credits from Cactusoft's code
- c. remove copyright messages or credits from the image upload and sizing scripts; these are freeware written by other authors – we have left their code and comments intact to give them full credit for their work, please respect their right to be credited for their efforts

1.1.3 Security issues

CactuShop Lite is a trial version and as such is NOT secure. The back end has no password protection and much of the code that secures various sections of the front end is not present in the lite version.

1.2 CactuShop - Full Version

The full licensed version of CactuShop is available from the CactuShop web site and includes the following features that are not part of the lite version:

- a. license for single site live web use
- b. save/recover basket functionality
- c. payment systems including WorldPay support
- d. more robust cookie-based basket
- e. large views of products and versions
- f. speed ordering
- g. 'my account' – order tracking and saved basket management
- h. statistics system
- i. email newsletter mailing list signup and management
- j. 'related product' functionality

- k. back end customer account management tools
- l. back end order management section
- m. back end stock level warnings
- n. back end affiliate system
- o. static HTML gateway page generation
- p. affiliate tracking and commission calculations
- q. invoicing

2 Setting Up

2.1 Base Platform Requirements

2.1.1 Operating system

CactuShop is an Active Server Pages application and as such needs to run on a web server that incorporates an ASP scripting engine. Although Linux/Unix servers can be made to run ASP, we have no experience of doing this and do not support the product on those platforms.

We advise running CactuShop on Microsoft NT/Win2000 server with the latest service packs you can lay your hands on. IIS4.0 or 5.0 web server software needs to be running and on older NT versions, the ASP support may need to be installed separately. CactuShop will run fine on shared web space but check the platform and permission requirements with your host first if in any doubt. Use the free lite version as a test.

2.1.2 Database

CactuShop ships with an Access 2000 database file. The ASP code is written to be switchable between MS Access, Microsoft SQL Server and MySQL syntax (similar but with some small differences). Access 97, MS SQL Server and MySQL versions of database are available as free downloads from our web site.

2.1.3 VBscript version

The CactuShop code is VBscript – the ASP default language. In order to update the VBscript engine, install the latest version of Internet Explorer on the server. For the image upload capability, VBscript 5.0+ is required and you will get an error trying to update products without it.

2.1.4 Support for Microsoft's software

The above software set up is a prerequisite for running an ASP site. We cannot support set up and installation of Microsoft or other third party software – please consult the relevant web sites and use their sample applications to test that your server, scripting engine and RDMS (database) are running properly.

2.2 Installing the Files

2.2.1 Unzipping the software

The product is shipped electronically as a self-extracting zip file, which is itself zipped to pass through firewalls. To unzip the files, double click the file and follow the onscreen instructions. You should end up with a CactuShop folder containing several other folders and files. The folder structure of the unzipped files should be as in figure 1 (below).

2.2.2 Importing into the web server

You can import the folder to create a new web in FrontPage or import into IIS – however you normally set up webs. If FrontPage prompts you to set up database connections for the Access file, click no because you do not need to. A DSN-less database connection is already set up within the software.

2.2.3 Setting up CactuShop to use an ODBC datasource

Some users prefer to connect to the database via ODBC. If so, set up the datasource and change the `datasourcename` setting in the `includes/config.asp` file to the name of your datasource, with quotes around it. For example:

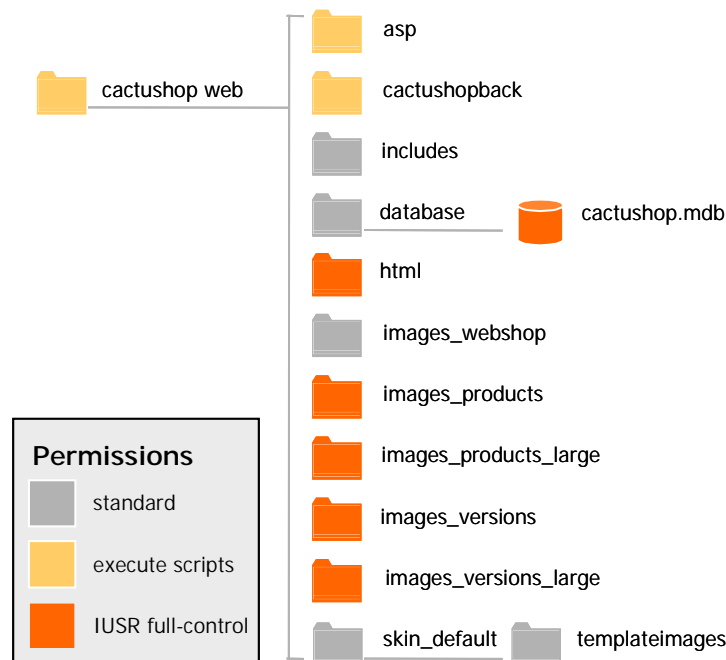
```
datasourcename="mydatasource"
```

2.2.4 Changes for security reasons

The database and its folder should both have their names changed at this point. You will need to adjust the database connection in the `config.asp` to reflect these name changes. If you do not change these default values, malicious users will easily be able to download your database and any private customer data it may hold. If your hosting provider has a 'private' or 'data' folder specifically for Access databases, we'd strongly advise using this. Permissions on this folder should prevent anyone downloading the file via HTTP (e.g. through a web-browser). In this case, please note that the back end 'back-up database' link will cease to work and you will need to back-up the database via FTP.

2.3 Setting Permissions

Figure 1. CactuShop folder layout and permissions



The folders and Access database file need certain security permissions set in order to function properly. Figure 1 shows which items should have what permissions. Note that these permissions cannot be changed via FTP. If your web host doesn't set these as standard, you will need either physical access to the server, access via PC-anywhere, VNC or some similar system or an obliging techie at the web hosting company. The database folder should be renamed or made 'private' as mentioned in 2.2.4.

2.3.1 How to set 'write' permissions for the database

On Win2000 and NT, you need to set security permissions to allow the Internet Guest Account full rights to modify the database. As default, it will only have read permissions.

Using Windows Explorer, navigate to the CactuShop mdb file (in the 'database' folder), right click it and click 'properties', then the 'security' tab. If the Internet Guest Account (also shown as *IUSR_MachineName* or something similar) is not present, you will need to click 'add' and then select and add this user. Next, select this user and tick the top box, 'full control'. Click OK and you're done.

If you don't give the database these permissions, you will get the following error on pages that write to the database. This includes the front end product page which writes statistical hit information:

"....must use updateable query..."

2.3.2 Setting image upload permissions

Assuming IE5+ is installed on the server, it should be possible to upload images to the web site through the facilities provided in the back end of CactuShop. However, the images folders must have the permissions properly set on Win 2000 and NT. Right-click the folder, click properties and then security. Select the IUSR account (Internet Guest Account) and ensure that full control permissions are set for it. This action should be performed on the *html*, *images_products*, *images_products_large*, *images_versions* and *images_versions_large* folders.

2.3.3 Setting scripts permissions

Some folders within the web may not have 'scripts' permissions set – they may only allow reading of files. This is fine for HTML, but ASP pages are dynamic and contain active code that needs to run. To ensure that the scripts have permission to run, navigate to CactuShop in the IIS manager or FrontPage, right click the *asp*, *includes* and *cactushopback* folders and tick the 'allow scripts to run' box. You cannot do this from Windows Explorer, it must be done within FrontPage or IIS. You don't need to set this for the other folders since they don't contain ASP scripts.

2.4 Run the Software!

Type in the address of the local web that you've just created into a browser and you should get the home page of the shopping cart. If you get any errors, please check the path you typed (careful!) and the points above.

3 The CactuShop Front End

3.1 Introduction

The front end is the part that visitors to the site see. All the pages are dynamically generated and allow the user to navigate around the site, view products, select items to add to the shopping basket and then finally, checkout and pay for the goods.

3.2 Skins

CactuShop has a template-based front end. This pulls the HTML base of the page from a folder containing a template HTML file and associated images. By adding a new skin folder (we have downloads of more from our site or you can modify the existing one or create your own) you can totally transform the appearance of the entire front end. Fonts, colours, alignment, arrangement of page elements – all of these can be changed by modifying the skin.

3.2.1 The style sheet reference

The default skin template includes the following styles:

<code>.netscape6problem</code>	Fixes a bug we encountered where NS6 ignored the first line in our stylesheet - weird but this fixed it...
<code>.smallnormal</code>	small size of text used throughout
<code>.smallnormaltable</code>	small size of text in tables such as basket and shipping
<code>.smallnormaltablealt</code>	small text used in tables - alternative colour for contrast
<code>.mednormal</code>	medium sized plain text used throughout
<code>.mednormaltable</code>	medium sized plain text used in tables such as basket
<code>.medbold</code>	medium bold text used throughout
<code>.medboldalt</code>	medium bold text in alternative colour for contrast
<code>.medboldtable</code>	medium bold text used in tables
<code>.largebold</code>	large bold text used as page headings
<code>.smallcompact</code>	smaller than smallnormal
<code>.smallbold</code>	small bold used throughout
<code>.smallboldtable</code>	small bold on tables such as the basket
<code>.smallboldtablealt</code>	small bold on tables - alternative colour for contrast
<code>.smallboldtabletop</code>	column headings on tables such as the basket
<code>.smallboldtemplate</code>	small bold style for use in the default template
<code>.smallboldfooter</code>	small bold style for use in the default template
<code>.locationbar</code>	small style for use in the location hierarchy links
<code>A:link</code>	standard hyperlinks used throughout
<code>A:visited</code>	visited hyperlinks used throughout
<code>A:hover</code>	hover style for hyperlinks used throughout (IE 4.0+, Netscape 6.0+, Opera 5.0+)
<code>A.minibasket:link</code>	hyperlinks in the basket summary
<code>A.minibasket:visited</code>	visited hyperlinks in the basket summary
<code>A.minibasket:hover</code>	hover style for hyperlinks in basket summary (IE4.0+, NS6+)
<code>A.table:link</code>	hyperlinks in tables such as the basket
<code>A.table:visited</code>	visited hyperlinks in tables
<code>A.table:hover</code>	hover style for hyperlinks in tables (IE4.0+, NS6+)
<code>A.templatemenu:link</code>	hyperlinks style for the default template menu bar

<code>A.templatemenu:visited</code>	visited hyperlinks for menu bar
<code>A.templatemenu:hover</code>	hover style for hyperlinks in menu bar
<code>table.minibasket</code>	background colour for basket summary table
<code>tr.minibasketline</code>	line shade colour for basket summary
<code>hr</code>	horizontal line throughout site
<code>pre</code>	fixed-width font style used in preformatted text for specifications field
<code>select</code>	dropdown menu style
<code>table.mainpage</code>	table background colour for site tables other than basket summary
<code>tr.mainpagetableline</code>	line shade colour for tables within the main content section of the page
<code>tr.mainpagetableline2</code>	variation shade colour for tables – slight contrast with above style to give faint striped appearance
<code>tr.mainpagetablespecial</code>	row alternative colour in tables
<code>tr.mainpageversionhighlight</code>	highlight colour for rows in site tables
<code>buttonstyle</code>	style used for push buttons

3.2.2 What elements make a skin?

A skin is a selection of files placed in a folder that sits on the root of the web. The template HTML document itself is always called *template.htm* and the images folder is called *templateimages*. The template also contains images for the basket icons and any header images.

3.2.3 How is the template used to format my pages (tech stuff)

An include file called *buildpage.asp* features on each front end page. This reads the skin template file's HTML, builds the basket summary HTML, builds the product category listing HTML and then replaces the *xxxBASKETSUMMARYxxx* and *xxxCATEGORYMENUxxx* tags with the appropriate HTML. Finally, the string of HTML is split around the *xxxPAGECONTENTxxx* tag, with either half being stored in a box of a 2-dimensional array called *aryPageTemplate*. Each page contains just the code that is necessary to generate the content part of the page – the *buildpage* include builds the rest of the HTML and the two halves stored in the *aryPageTemplate* array are written to the page above and below the main page content.

3.2.4 What essential features must a 'skin' have?

- the style sheet incorporated into the *head* section of the page
- *xxxPAGECONTENTxxx* tag in order for page content to appear
- the main menu must be included to give users a way to navigate
- a *<head>* tag (the basket message refresh system requires this – it MUST be lower case)
- javascript pop-up function (see default skin)

3.3 Product view

This is the key part of the front end – the page that displays products and their versions.

3.3.1 Product information

The CactuShop code pulls out product information and checks to see whether an image exists for the product. If one is present, this is displayed. Another

check is made to see if a large image has been uploaded too. If yes, the 'view' link is displayed.

3.3.2 Version list

'Versions' is a critical design feature in CactuShop. Products can have any number of versions, and each version of a product can have a different spec, price and availability. Versions may typically be different sizes, colours, etc. The version list can include an optional description for each version, an image, a large image link and an 'add to basket' link. CactuShop does not use product 'option' selections.

3.3.3 Auto sizing of 'large view' pop ups

The large view pop ups are automatically sized to fit the size of the images that occupy them.

3.3.4 'Related items' functionality

CactuShop includes facilities in the back end for setting up links between products. In this way, a page containing electric torches could have links to batteries or replacement bulbs, for example. These links are one way, so in the above example, the battery page or bulbs page won't have links to electric torches unless you specifically set these up.

For information on setting up related items, see section 4.7.4.

3.4 Save/Recover Basket

3.4.1 Basic operation

This feature lets users save their basket contents to the database so they can recover them on a future visit. To save a basket, a user needs only enter an email address and name/password for the saved record. The same information is entered in the appropriate place to recover the saved basket, instantly reinstating the products to the current basket.

3.4.2 Used to store regular repeat orders

Users can save any number of baskets, so this system is also perfect for storing several regular orders that a user may make from your web shop.

3.4.3 Used to store orders for another user to read

Since the basket can be recovered by any user with the email address and name/password, a CactuShop saved basket is perfect if you wish to select items and get someone else on a different machine to recover the basket and pay for the items.

3.4.4 Issues affecting recovered baskets

If a basket has been stored for some time, it may be that the products in the basket are no longer available, or the specification/price may have changed. In the first instance, items no longer available or items out of stock will be removed from the cart automatically. However, the user should always check recovered items through to ensure the specification and price is acceptable. CactuShop provides a link to the basket and a message explaining this so that customers will be encouraged to check through recovered basket details.

3.5 SpeedOrder

This lets users enter the code number of versions and a desired quantity to add them to their basket. This is particularly useful when users may prepare their order from printed versions of the catalogue and don't want to search the site looking for those items to add to their cart. CactuShop will trap and display any errors with the data entered, such as an item not being found or the quantity being an illegal value. SpeedOrdering is handy when you know the product code of what you're looking for and don't want to have to search and add items manually.

3.6 Stock Tracking

3.6.1 Basic operation

CactuShop supports stock quantity tracking for items. The total of each item is adjusted each time any are purchased and items where the stock has reached zero will automatically display as 'out of stock', preventing further users from adding these to their order.

3.6.2 Trapping stock-related errors and issues

If a user tries to add more of an item to their basket than are currently in stock, or increase the quantity of an item in their basket beyond the total available, CactuShop will only add the available quantity. A message explaining why the quantity added was reduced is displayed and the relevant line in the basket is highlighted.

3.6.3 Setting up stock tracking for an item

Stock tracking can be enabled or disabled for items on an individual basis. For more details see 4.4.

3.7 My Account

3.7.1 Saved baskets

Logged in users can view a list of their saved baskets. They can load any of these saved baskets or delete them.

3.7.2 Order tracking and history

CactuShop allows the user to see their order history, including the quantities of items bought, pricing and discount (if any). A full history is retained so users can go back and check orders they made at any point in the past. If order tracking is enabled by the store owner (see 'ordertracking' config setting in 6.4.3) then the user can see the current status of the order and any comments the store owner has added regarding the order.

3.7.3 Cookie-based security

The user's email address and password are stored on a per-session cookie that expires with the end of the session.

3.8 Affiliates Section

3.8.1 Click-through tracking

CactuShop has an affiliate system that lets you track click-throughs to the site via affiliate links. This is dealt with in more detail in section 4.10.2. This page

logs and affiliate click-through in the *tblCactuShopAffiliateLog* table and also plants a cookie on the visitor's browser that is used later on if the visitor makes an order through the site.

3.8.2 Assigning a customer to an affiliate

The *shipto.asp* page checks to see if there is a cookie planted with an affiliate ID, indicating that the visitor came to the site via an affiliate link. If there is such a cookie, the affiliate ID is transferred to the next page via form fields, ensuring the value will be passed whichever payment system the site is using. When the customer record is created on the *mailorder.asp* page (or payment system alternative page), it is assigned this affiliate ID. All future orders by this customer will be credited to the affiliate responsible for them first signing up.

3.8.3 Affiliate statistics

Affiliates can access statistics on the hits and sales their link has generated for each month of the last 12 months.

3.9 The Ship-to Page

3.9.1 Destination menu

CactuShop's payment form works a bit differently to other packages because it asks where the goods are being shipped to before offering final pricing and getting the cardholder's details. This is because the destination will affect final pricing. Shipping a long way will likely cost more, but tax may be charged to local customers and not to overseas customers. Once the destination is chosen, it is hardcoded into the next form so users can't change it without the pricing being recalculated.

3.9.2 Email address box

Before making an enquiry or going to the check out, the user must enter an email address. This way, the software can check if any previous purchases have been made by the user. If so, the user will be directed back to the ship-to page from where they can request their customer code and use that to pull up their address details. The user will also get the benefit of any discount their account has been given and the shop owner can more accurately link orders to customers in the back end.

3.9.3 Request customer code

Customers are automatically given a random customer code when they first place an order. This acts as a password for looking up their order and can be used to recover account details when ordering subsequently. If the number has been lost or misplaced, the user can request an automated reminder.

3.10 Online Payment – Checkout Area

This part may vary depending on how you have your site configured. If WorldPay, Authorize.Net, Protx or CactusPay is used, the form won't ask for your card details. Information in the final stages is passed via hidden form fields for compatibility with Secure Sockets Layer (SSL), a form of public key encryption commonly used to make internet transactions through a browser secure.

See section 5 for further information.

3.10.1 Email signup

The newsletter mailing list signup is incorporated into the online payment part of the site so users can opt-in to the newsletter when ordering. Our newsletter database follows best practice by sending an email to those signing up for the newsletter, a link in which must be clicked to complete the signup process. This ensures that email addresses are verified before they can receive the newsletter.

See section 4.11 for further information.

4 The Back-End

The back-end is used by the shop owner or operator to add, modify or delete products, categories and other items.

4.1 Logging In / Back End Password

Go to *cactushopback/default.asp*. This should bring up the login screen. The default login and password is "cactushop" for both. We recommend for obvious security reasons that you make changing this a priority before you put the site online.

Changing the defaults is easy. In CactuShop v4.2xx or earlier this was done by modifying the values in *includes/back_password.asp*.

From v4.5 onwards it is done by changing the two config settings **backendlogin** and **backendpassword**.

4.2 Navigating the Back End

This is similar to the front end in appearance. Note that the left hand side category menu now shows "(MAS)" after master categories (categories that contain sub categories rather than products). Clicking on a category brings up a list of the products and versions of those products. Clicking on a master category brings up a list of the sub categories.

4.3 Listing Orders

4.3.1 Recent orders

This link on the navigation menu lists the 25 most recent orders. From this page, the site owner can click through to the full order text, view orders on any specified day, scroll through the days one by one or click through to the customer record.

4.3.2 Awaiting payment

This link lists the orders that are marked as awaiting payment.

4.4 Stock Tracking

4.4.1 Basic operation

Stock tracking stores levels of particular items in the database and flags them as 'out of stock' on the front end if the supply is exhausted. For more information about the front end aspects of stock tracking, see 3.6.

4.4.2 Warnings page

This is the easiest way to see at a glance which items are out of stock and which are below their warning levels. Items in red are out of stock, those in grey are below their preset warning levels.

4.4.3 Setting up stock tracking for an item

When creating or editing a version, there are two boxes that refer to stock tracking. The first is the current level of that version in stock. This can be adjusted by changing the value and submitting the form. It is also adjusted as customers purchase stock through the site. The second box is the warning

level. If this is set to zero, stock tracking is disabled for that item. But if an integer value higher than zero is set, stock tracking is enabled and the whole stock tracking system kicks into action for that product.

4.4.4 Why disable stock tracking for some items?

Stock tracking requires commitment on the store owner's part. As stock is depleted, the store owner must adjust the quantities of stock upwards when new stock arrives to ensure that products do not show as out of stock on the front end. For products that are never out of stock (core products, warranties, service agreements, etc.) stock tracking may be an inconvenience. Therefore, setting the stock tracking warning level to zero for such items is recommended.

4.5 Statistics

CactuShop provides detailed graphical statistics of how many times each product and category has been viewed. Each time a product or category is displayed on the front end, a 'hit' record is added to the database. The back end stats pages dynamically count these records and display data by month, category and product, allowing you to view trends and compare what you are selling with where people are looking. Statistics for the various products and categories are now ordered in descending order of popularity.

4.5.1 Turning off statistical tracking

If you don't require statistics, you can turn the system off from the config settings. These stats can cause your database to grow in size and the more traffic your site gets, the faster the database will grow. Disabling stats will also speed up the product pages to a small extent.

4.6 Modifying a Category

Use the 'modify the page' link in the top right of the category page. You can select whether a category is a normal category or a master category. You cannot set a category to be a master category if it still has products associated with it. Similarly, you cannot change a master category to a normal category if it still has sub categories associated with it.

4.6.1 Deleting a category

Because of the database structure that enables products to feature in any number of categories, deleting a category becomes a more complex operation than before, both in terms of coding and the concept of what will actually be deleted.

In order to preserve database integrity, it is clearly logical to delete 'orphan' records – the products and versions that belong to a category you are removing. However, this can cause problems. What if you delete a category and find that you've wiped out products that also belonged to another category that you didn't wish to remove?

This is why CactuShop has two delete options for categories. Option 1 is a 'soft delete' – it will remove products (and their versions) only where they belong to the category you're deleting. Where they belong to other categories too, it will leave the products intact but just clean up the linkage with the deleted category. Option 2 is a 'hard delete' - it will remove the products whether they belong to other categories or not. In this case, it will also clean

up the linkages between those other categories and the products that have been removed.

4.7 Modifying a Product

4.7.1 Featured items dropdown

You can highlight certain products by featuring them on the home page. The order of products depends on the priority set with this dropdown. Zero means not featured at all.

4.7.2 Large image view

In order to add or modify a large image view, you must check the box provided. This will lead through to an extra page after the product record is updated from where a new image can be uploaded.

4.7.3 Products can appear in more than one category

One of the major structural changes in v4 is that products can feature in any number of categories. So 'anti-backdraft sunglasses' can be seen in both the 'equipment' and 'clothing' sections of our demo, for example. Consequently, products can also be accessed for editing through any of the categories they belong to within the back end.

4.7.4 Adding 'related products'

Click the RELATED PRODUCTS link located under each product in the category page. This will spring a pop-up window. Select the category of the product and then the product, then add it. Finally, confirm the products and they're saved to the database.

4.8 Modifying/Cloning a Version

Click on the 'edit' icon by a version in order to edit it. The same rules apply as for editing products, including the method of uploading large view images.

4.8.1 Cloning versions

Because of the way CactuShop allows you to create versions of products, it is often the case that you will have several different colour and size combinations. In order to minimize data entry for what are essentially similar items, cloning has been introduced. By cloning a version, you bring up that existing version's details, but can make changes to it and submit it to create a new version.

4.9 Customer Database Admin

4.9.1 Basic operation

Each time a customer first orders through CactuShop, a customer record is created. Because the email address is required to make an order, the shop can find if that customer has an existing customer record and use that for reordering. For more information, see 3.9.

4.9.2 Creating customer records from the back end

Customer records can also be created from the back end, so existing clients can be set up and given the appropriate discount without needing to make a prior order through your store.

4.9.3 Customer record listing

Customer records can be looked up using the email address (or any part of it, such as just the companyname.com part). The 'list orders' link will show a full list of all orders that customer has made.

4.10 Affiliate Admin Section

4.10.1 Basic operation

Affiliates are other web sites who are paid commission for putting either web traffic or orders through to your web site. CactuShop tracks both click-throughs (visitors) from affiliate web sites and the value of orders subsequently made by those visitors. Detailed stats for both are available and the system also calculates the commission due for any month in the last year.

4.10.2 Technical implementation

Affiliate sites can post a coded hyperlink pointing to your *aftrack.asp* page. They can also post a redirect page address to this as a querystring, in order that customers can end up on a specific page of the site. The coded hyperlink should look something like this:

<http://www.cactushop.com/asp/aftrack.asp?ID=2&Req=product.asp?product=7>

Where 'ID' is the affiliate ID number and 'Req' is the page to redirect to once the affiliate data has been logged.

The *aftrack.asp* script records the following information to the database if the affiliate number is a valid one:

- a. HTTP referer: the address of the page where the user clicked from
- b. Remote address: the IP of the user who clicked the link
- c. Requested page: the 'Req' value above
- d. Date and time: time stamp for the record.

Users also have a cookie planted on their machine containing the affiliate ID of the link they came in from. If they order from the web site, this ID number is read and the affiliate is credited with the sale. For more information see 3.8.2.

4.10.3 Setting up and modifying affiliates

Affiliate records can be created and edited in a similar way to customer records.

4.10.4 Viewing statistics for affiliates

This works in a very similar way to the main stats system (section 4.5). The total amount of clicks, order value generated and commission can be looked up by month.

4.11 Email List Management

Having the facility to let visitors and customers signup to an email newsletter is a valuable way of keeping in touch with those interested in your products. Users signup from the mailing list box on the site, the 'make enquiry' form or when making an order.

4.11.1 Send mail

You can mail all the confirmed subscribers to your newsletter from CactuShop. Since users can opt for either plain text or HTML email, you can put two different versions of the email body text into the fields provided.

4.11.2 Copy to clipboard

If you wish to export your mail list to an external program, you can easily copy and paste it from here.

4.11.3 List/find

You can view the most recent signups or look for particular people with the search feature.

4.11.4 New/edit address

You can create or edit email address records.

4.11.5 Purge unauthorized addresses

If users don't authorize their signup within a reasonable period, the record is effectively useless because CactuShop will not send mail to users who have not verified their email address by clicking on the link in the confirmation mail. CactuShop can clean the database of these records in order to reduce the database size.

4.12 Searching for Products or Versions

In a large store or any database system with numerous records, items occasionally get filed in the wrong place. If you accidentally put a product or version in the wrong category, finding it again can be a difficult task. The back end search is designed to help you find items quickly, especially if you are not sure which category they are attached to.

The search will find both products and versions where the name, description or product code (or part of them) matches the search text you have entered. This means you should be able to find items even when the product code has been incorrectly entered or you can only remember basic details about the name or description.

4.13 Closing the Shop

From time to time, you might be making a major update such as uploading a modified database file or changing prices across the system. During these periods, it is a good idea to close the shop. Clicking the 'close the shop' link will end all current user sessions and prevent new users from starting to use the shop. A 'temporarily closed' message will be displayed on the site.

4.14 Switching Products or Categories Off

If you have seasonal goods, products that are out of stock, or are carrying out updates to the site one section at a time, you will likely want to keep the shop open but just close that section off.

You can temporarily suspend products and categories by editing that item and unticking the 'show on site?' box. You should switch off products that contain no versions until such a time as you have added versions.

4.15 Customers

4.15.1 Finding/creating/modifying records

You can list or find customers (by name or part of email address). You can then edit these customer records or add new ones, applying a discount for future purchases if you choose. This is a useful way of giving valued customers an incentive to use your site.

4.15.2 Cross linking of customer and order records

You can pull up a customer record from an order record or vice versa by clicking on a link in the respective records.

4.15.3 Purge incomplete

On the front end of the site, customer records are added as a user fills out their details while buying items. However, if the record is incomplete or contains errors and the user then quits the site, it cannot be used subsequently when that user comes back. In order to clean up the database, these records can be purged from time to time. This will not affect valid customer records – it just removes fragmented and incomplete data that is of no further use.

4.16 Orders

4.16.1 Reviewing orders

CactuShop stores orders in the database and these can be reviewed online. For security reasons, card details are not stored, but everything else is. The items and quantities, shipping charge, tax and discount (if any) are all available, as is the text of the order email.

4.16.2 Invoicing

The stored information is used to produce invoices by simply clicking a link.

4.16.3 Order progress and status

There are four checkboxes that allow you to set the current progress of the order from it being sent to the store to invoicing (if payment by PO number), shipping and payment. There is also a text field where the store owner can add comments that are available to the customer through the 'my account' feature on the front end.

4.16.4 Turning off order progress system

If the store owner does not intend keeping order progress and status up-to-date (this obviously requires a time commitment), it can be switched off from the `ordertracking` config setting. This does not change anything on the back end, but removes the order status and progress sections from the 'my account' view. Order history is still available as before.

4.17 Tax Rates

Some items might have no tax (0%), others might have a standard rate, and some items may even have a special rate. As default, CactuShop supports up to 4 different tax rates, but adding more is relatively simple. Setting up these tax rates is not to be confused with whether or not tax applies to certain individuals because of their location. For example, in the UK even an item that requires tax will be tax free to someone from outside the EU. The

determination of who pays tax rather than what items require tax is handled in the next section.

4.18 Shipping Destinations

A web site is accessible to users across the globe and you want to be able to deal with those users as smoothly as you deal with customers in your own country. You also want to be able to offer them the best price that you can.

4.18.1 Charge tax by country

A UK company needs to charge VAT (sales tax) to customers in the UK and Europe but those outside of the EU are not required to pay this tax. Deciding on whether residents of a particular country must pay tax is something you might want to check with your tax authorities or accountant. In some countries like the US, tax may also be different depending on the state or province the customer is in. In this case, we would advise adding US states to the dropdown menu from the US destinations table included in the database. You can then treat these as different tax jurisdictions.

4.18.2 Shipping zone

Shipping to different locations costs different amounts of money. CactuShop lets you place each country into a shipping zone – each zone will have a different scale of charges applied to it. As default, zone 1 is domestic (UK), zone 2 is regional (Europe) and zone 3 is worldwide. Depending on the location of your shop, you may need to adjust these settings, making your own country zone 1 and working outwards from there. To add more shipping zones, create a new set of band records in the *tblCactuShopShippingRates* and a new *zonearray* name in the config settings.

Shipping is also dependent on either the total value of the order or the weight of the order. Which of these factors is actually used is decided by the *calcshipcostbyweight* setting in the *config.asp* file. Default of “n” will result in shipping costs being calculated based on order value. Change the value to “y” for shipping cost based on weight.

4.18.3 ISO country code

WorldPay and other payment systems need to know the country where goods are being shipped to. Because country names can often be quoted in different ways (UK, England, Great Britain, GB, etc.), standardized ISO codes are often used. You probably won't need to change these, but if you do, you can do it here.

4.18.4 Country name

Some parts of the world like their coups and revolutions and seem to change their names on a regular basis. Keep up with foreign affairs by listening or watching to the BBC World Service and help keep your CactuShop country list up-to-date. Hey, those ISO codes might even change too...

4.18.5 The country ID

This is just the database ID used for that country's record. You don't need to do anything with this but it can sometimes be useful during development.

4.19 Shipping Rates

Shipping rates for the three zones specified in the *tblCactuShopDestination* can be set here. The order value (or weight) that a particular shipping charge applies to can be set independently. You could increase shipping with price band but give the biggest orders free shipping to encourage customers to spend big.

4.20 News Items

You can easily add up to three news items here for display on the front of the site. The news items are added from the back end of the site and are stored in the database - no FTPing required.

4.21 Static HTML Product Gateway Pages

4.21.1 The debate over search engine indexing of database sites

All serious e-commerce web sites use dynamically generated pages created from information stored in an online database. However, those vendors selling lightweight e-commerce products often argue that static HTML pages are better because they can be indexed by search engines, whereas database content cannot. In the past this was true. However, since most major news, e-commerce and general interest sites are now databased, search engines have made major advances in indexing dynamic content. Otherwise, they would miss the best parts of the web! But just to be on the safe side, CactuShop now includes a facility to build static versions of the product pages automatically – so you get the vast benefits of using a database, with all the benefits of static HTML too.

4.21.2 Creating the static pages

On the gateway pages screen, just click the link. The system will build a series of static pages, one for each product. It will also generate a static default.htm document that links to all the static HTML pages. This document is linked to by a hidden image on the front of the web site, ensuring that a search engine can follow through the pages and index them.

4.21.3 Products no longer on the site

No facility is built in for removing pages of products that are no longer present. You should keep all static HTML pages where possible because each may have search engine links to it that will result in lost sessions if users click to come through to your site only to get a 404 'page not found' error.

If a user clicks through from a gateway page but the product is no longer available, they will simply get a 'product not available' message once they click on to the CactuShop product page. At least this way they still arrive successfully at your site and can search for other products.

4.21.4 Folder permissions

The HTML folder must be set to allow the Internet Guest Account to write to it (as for all image upload folders). If this permission is not set, the attempt to create static pages will fail and an error message will display.

5 Online Payment Methods – Setup

5.1 Setting Up WorldPay Select Junior

For further WorldPay information, see www.worldpay.com

WorldPay is a major provider for online credit card transactions. By using the scripts provided, CactuShop can easily be configured to use WorldPay for payment. You will need WorldPay to set up an account for you on their system. The CactuShop software handles the entire ordering process and formats the customer and order details in a form for submission to WorldPay. The customer then inputs credit card details at WorldPay's secure site. Once the transaction has been completed, WorldPay informs your CactuShop, which updates its records to show the status of the transaction and sends order notification to the store owner and customer (if required).

One big advantage of using an external card payment system like WorldPay is that you do not need to implement SSL on your site since the card details are entered on WorldPay's system.

Some configuration to your account must be done at WorldPay's Web site (WorldPay will have supplied you with access details). This is referred to as WorldPay's Merchant Management System.

The WorldPay scripts are

- *WORLDPAY_payonline.asp*
- *WORLDPAY_mailorder.asp*
- *WORLDPAY_callback.asp*

and should all be placed in the ASP folder of CactuShop

To switch CactuShop to use WorldPay, you must edit the config settings under Miscellaneous.

paymentsystem (string)

This should be set to "WORLDPAY". CactuShop will now forward automatically to *WORLDPAY_payonline.asp* rather than *payonline.asp* after the *shipto.asp* page.

The WorldPay payment scripts are configured from the WorldPay part of the config settings. The details of each entry are as follows:

WP_CallbackPassword (string)

This is an added security measure. Set a password or phrase here and then set up the corresponding phrase in the WorldPay merchant management system. WorldPay passes this back to CactuShop after the transaction has completed.

WP_CallbackURL (string)

This is where you want the user to return after the transaction has completed (most likely your homepage). The purchaser will be given a hyperlink to return to this location. Do not confuse this with the callback setup at WorldPay's site (which will be the full URL to *WORLDPAY_callback.asp*).

WP_EmailCustomer (string)

Whether you want CactuShop to email the customer when an order goes through. Alternatively you can get WorldPay to send the emails (see WorldPay's Merchant Management System).

WP_EmailMerchant (string)

Whether you want CactuShop to email the store owner when an order goes through. Alternatively you can get WorldPay to send the emails (see WorldPay's Merchant Management System).

WP_InstallID (numeric)

The Install ID given to you by WorldPay

WP_ISOCurrencyCode (string)

Currency code... GBP for Great British Pounds... USD for United States Dollars... check WorldPay's documentation to find the code for your currency.

WP_testmode (numeric)

If this is set to 100 whilst you are testing, then all transactions will succeed. If set to 101 all transactions will fail. See WorldPay's documentation for more information.

WP_WorldPayURL (string)

The default value is <https://select.worldpay.com/wcc/purchase>, the URL of WorldPay. It is very unlikely this will change. Don't touch it unless WorldPay tells you to.

Within WorldPay's Merchant Management system you must setup the following (in addition to standard setup info)...

- callback password (should be same as CallbackPassword in the WorldPay config settings)
- use callback enabled should be set ticked on
- use callback response should be set ticked on
- the callback URL - this should be where your *WORLDPAY_callback.asp* page is located. This MUST be accessible from the web as WorldPay will call the scripts.

Please review WorldPay's documentation. WorldPay gives you the facility to customize the look and feel of their pages, specify minimum transaction values and a whole lot more.

5.2 Setting Up Authorize.Net

For further Authorize.Net information, see <http://www.authorize.net/>

Authorize.Net is a major provider for online credit card transactions. By using the scripts provided, CactuShop can easily be configured to use Authorize.Net for payment. You will need Authorize.Net to set up an account for you on their system. The CactuShop software handles the entire ordering process and formats the customer and order details in a form for submission to Authorize.Net. The customer then inputs credit card details at Authorize.Net's secure site. Once the transaction has been completed, Authorize.Net informs your CactuShop, which updates its records to show the status of the transaction and sends order notification to the store owner and customer (if required).

One big advantage of using an external card payment system like Authorize.Net is that you do not need to implement SSL on your site since the card details are entered on Authorize.Net's system.

The Authorize.Net scripts are

- *AUTHORIZENET_payonline.asp*
- *AUTHORIZENET_mailorder.asp*
- *AUTHORIZENET_callback.asp*

and should all be placed in the ASP folder of CactuShop

To switch CactuShop to use *AUTHORIZENET*, you must edit the config settings under Miscellaneous...

paymentsystem (string)

This should be set to "AUTHORIZENET". CactuShop will now forward automatically to *AUTHORIZENET_payonline.asp* rather than *payonline.asp* after the *shipto.asp* page.

The AUTHORIZENET payment scripts are configured from the AUTHORIZENET part of the config settings. The details of each entry are as follows:

AUTHNET_CallbackURL (string)

This is the full URL to *AUTHORIZENET_callback.asp*. Remember, Authorize.Net will call this script from their server – it won't work if you set the name of a script that is not on a live webserver as Authorize.Net won't have access to it!

AUTHNET_ReturnURL (string)

This is where you want the user to return after the transaction has completed (most likely your homepage). The purchaser will be given a hyperlink to return to this location. Use a full URL beginning with http.

AUTHNET_EmailCustomer (string)

Whether you want CactuShop to email the customer when an order goes through. Authorize.Net may also send its own email to the customer.

AUTHNET_EmailMerchant (string)

Whether you want CactuShop to email the store owner when an order goes through. Authorize.Net will send its own email to the merchant too.

AUTHNET_LoginID (string)

The Login ID given to you by Authorize.Net

AUTHNET_TestMode (string)

If this is set to TRUE whilst you are testing then no billing of credit cards will take place. You should also set testmode within the Merchant Management system to be safe. When you are in testmode the page where you enter your credit card details will clearly state this at the top.

AUTHNET_AuthorizeNetURL (string)

The default value is <https://secure.authorize.net/gateway/transact.dll>. It is very unlikely this will change. Don't touch it unless Authorize.Net tells you to.

Some configuration to your account must be done at Authorize.Net's Web site (Authorize.Net will have supplied you with access details). This is referred to as Authorize.Net's Merchant Management System.

Within Authorize.Net's Merchant Management system you must setup the following (in addition to standard setup info)... Login at <https://secure.authorize.net> and when then click the settings option.

- on the manage URLs page, add the URL of your callback page (same as AUTHNET_callback.asp) and tick to make it the ADC Relay Response Default and Valid ADC or Receipt Link.
- on General settings, tick Test Mode. Remember to untick this when you want to go live.

Please review Authorize.Net's documentation. Authorize.Net gives you the facility to customize the look and feel of their pages and a whole lot more.

5.3 Setting up Protx VSP Form

More information will be included here shortly.

5.4 Email Notification - Unencrypted

The default method for alerting you of orders is by email. Two mails are formatted, one containing a confirmation of the order is sent to the customer. The second, containing credit card details and order details, is sent to the site owner.

Caution: This email is NOT secure and we would therefore advise that this method is not used other than for testing/demonstration, etc.

5.5 Cactushop Encrypted Mail Add-on ("CEM")

If you want to send secure email, we have a CactuShop add-on which includes script-based single & triple DES encryption. This is not a part of the standard CactuShop product - it is an extra. For pricing check our online order form.

Please note: the encryption add-on only encrypts mails sent from the site – it does not encrypt data passed between the browser and webserver and therefore should only be used on sites using SSL (see 5.7 below).

There are 3 main steps to setting up encryption.

5.5.1 Generating a key

DES, the encryption algorithm used in CEM normally uses a 64 bit key which is reduced to 56 bits by excluding parity bits. 56 bits is effectively 56 binary 1s or 0s. Each extra bit doubles the number of possible keys so a 56 bit key would take twice as long to guess as a 55 bit key.

CEM also supports triple DES, an algorithm which repeats DES 3 times with different keys giving a key size of 168 bits – therefore taking billions of times longer to guess.

Cactushop represents DES keys in Hex code. Hex is base 16 to to count from zero to 15 in hex is 0123456789ABCDEF. 16 is therefore represented by 10.

each character of Hex represents 4 bits or binary items. Therefore a 56 (64) bit key can be represented by 16 hex characters and a triple DES key by 48.

Cactushop can automatically tell the difference between a 56 and 168 bit key. Here are two example keys:

Single DES (56 bit)

```
0123456789ABCDEFxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

Triple DES (168 bit)

```
0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF
```

You can see that single DES keys fill up the used keyspace with "x" characters.

DES encryption is very complex and therefore slow especially when implemented in Vbscript form for the ASP pages. Triple DES may take 10-15 seconds to encrypt even on a fast server. Therefore you may prefer to use single DES – it is certainly strong enough to make cracking it for obtain credit card numbers uneconomic (breaking 56 bit DES still takes months using large amounts of expensive computing power).

5.5.2 Enabling CactuShop to send encrypted mail

First the config settings must be edited. Under Encryption set encrypt = y and encryptionkeyfile to yourkey.cek (cek is the default extension used for Cactushop key files).

For security reasons the key is not stored in the database but in the *config.asp*. Edit the *config.asp* file in the includes folder –

```
encryptionkey="1212121212121212xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx"
```

where the string is the data of your key.

5.5.3 Setting up the decryption software

Once steps 5.5.1 and 5.5.2 are complete, putting through a test order should result in an email being sent to the shop owner's email address. This will contain an attachment called something like *order342.ce2* – this is the encrypted order.

To install the decryption software, copy all the files provided to a directory on the machine you will use to receive the orders by email. In Windows Explorer go to Tools/Folder Options/File Types, New and add ce2 as the new extension. Then associate this file type with the .exe.

Now ensure that you create a key of the same name you set in point 5.5.2, eg yourkey.cek and fill the content of this key with the hex string you formed in 5.5.1. You can do this either by running the keymanager from the CEM decryption software or creating the .cek file in notepad and saving in the same folder as your decryption software.

Now you should be able to open the attachment from your email package and see it load in decrypted form in the CEM decryption software.

5.6 Secure Back End Review – Requires SSL

One further secure method of viewing orders is to set CactuShop to store order text in the database and send you an email notification of new orders. The credit card details can be viewed by logging into your back end and viewing orders through SSL online.

To implement this method:

- Change the config setting under Miscellaneous **SaveInDB** to “Y”
- Ensure your secure certificate on the site is setup properly
- Ensure your form action on *cactushopback/orders_list.asp* is recoded as HTTPS and with an absolute URL (e.g. not *../asp/samplefile.asp* but <https://www.cactushop.com/asp/samplefile.asp>)

Since you are now storing credit card details in the database we would suggest that for security reasons you hold the database OFF of the web space to prevent the chance of someone downloading it. It might also be better to connect to it with ODBC since this does not reveal the path to the database in any of the scripts.

5.7 Setting Up SSL

In order to accept information such as card details securely through your site you will need to implement Secure Sockets Layer (SSL). SSL uses public key cryptography to encrypt a link between a browser and server, securing the information transferred across that link. Cactusoft cannot offer support with setting up SSL (you should contact your ISP); the information here is provided purely as an overview of the process and technology.

Please note: SSL is not required on your site if you are using a payment gateway such as WorldPay. In this case credit card details are entered at the payment gateways site where SSL will already be installed and running.

5.7.1 SSL issues

Running pages through SSL creates some issues for CactuShop. SSL pages can't read cookies placed by non secure-pages and you can't pass parameters via the URL (“GET”). Fortunately, CactuShop passes parameters via POST for the last few pages of the order process. You should run the cart in non-secure web space, but pass to SSL for the payment side. To do this, recode the link in the *shipto.asp* file to use an absolute URL for the form handler. This URL should begin *https://*, rather than *http://*. If some items (eg images) on a page are not in a secure area and are coded with a non-secure absolute URL then you may get a warning when browsing the secure area (“*this page contains both secure and non-secure items*”). To prevent this, ensure that image links are not absolute so that they will be called with HTTPS when viewed on secure pages.

5.7.2 SSL access to the database

Some ISPs will set up SSL for your domain on a separate physical machine that the one which holds your CactuShop installation. Please note that the SSL pages must have access to the database in exactly the same way as the non-secure pages. Please check with your ISP that your database will be accessible from the secure pages (ie the secure pages are on the same machine as the rest of the site, or the database can be accessed from the SSL enabled pages in another way). If the secure area is on a different machine

and cannot gain access to the database, we have a system called CactusPay to handle this – this is also supplied with the Cactusoft Encrypted Mail system. It works in a similar way to payment gateways.

5.8 Other Payment Systems

We are working on adding built-in support for other major payment methods too. These will be available free for CactuShop full customers as and when they're available.

6 The Config System

This is the “junction box” of the whole system and contains most of the switches to configure the commonly used elements of CactuShop. In v3 and prior versions, the *config.asp* file was a list of constants and settings that controlled many elements of the store. On v4, this has been largely replaced by a databased application variable system using the *tblCactuShopConfig* table to store the default settings. The database connection string still needs to be set in the *config.asp* file, but once this is in place, other settings can be changed online from the back end.

6.1 Basic Operation

The config settings are stored in server memory, using ‘application variables’. These values are created by the *config.asp* file if it cannot find existing ones in memory or if forced to update from the back end config setup page. Application variables are shared across all pages and users of the application. Only one instance of each is stored in memory. Although similar in nature to session variables, application variables do not time out and do not hog huge amounts of server memory when the site is busy since all users share the same single set of variables.

6.2 The License Number

Each copy of CactuShop has a unique license number that must be present for any site using the software on the web. Each license number may only be used for one site. The part of the code that builds the license number into the page HTML may not be removed. Please see the terms and conditions if in doubt.

6.3 Database Connection

The settings relating to CactuShop’s connection with the database still need to be set up in the *config.asp* file. The settings are as follows:

DBtype

This can be either “access” for MS Access or “sql” for MS SQL Server. This setting controls the syntax used in SQL statements that incorporate DELETES or dates (because these use slightly different syntax on the two database formats).

datasourcename

Two sample strings are supplied, for either MS Access or MS SQL Server. These will obviously need to be edited to reflect the name of your database, machine name and/or password. You can also setup your database as an ODBC (Open Database Connectivity) datasource. To do this, first open the ODBC administrator. In Win2000, this is under “programs” but in older versions of Windows it is called 32bit-ODBC and is a control panel. You need to add a system datasource, selecting the Access file or SQL Server database you wish to use and giving it a name. Scripts such as CactuShop can then link to this database by datasource name without knowing the path to the file. So your connection string will change to:

```
datasourcename="myodbcdatasourcename"
```

Note that we don’t specify any file with ODBC connections – just the name of the datasource. In theory, you can change the database type and providing

you give it the same ODBC datasource name as before, the scripts do not need to be changed. In practice though (as previously discussed) minor changes to the SQL statements are needed when changing from Access to SQL Server. We've built in support for this, hence all you need to change is the `DBType` switch.

`cursorType`

This setting can prevent certain types of operations such as recordcounts from returning correct values. Different versions of database drivers and operating systems require a different setting here. As default the cursor is type 3, but after upsizing to SQL, you may find the cart functions erratically and procedures that require recordcounts return -1. In this case, try changing the `cursorType` to 1. The effects of wrong cursor type can be so erratic that it may not be immediately apparent what the problem is. If the cart acts weirdly, try this before tearing your hair out.

6.3.1 Other database types

CactuShop is only tested with MS Access 2000, MS SQL Server 7.0 & 2000 and MySQL v3.23.49. Other versions of Access and SQL Server should work fine providing your server has the correct drivers installed. Older versions of MySQL may not support some SQL syntax used in CactuShop. No changes of scripts are required. If you need an Access file in 97 format this can be downloaded from our web site 'further downloads' page.

If you wish to use CactuShop with Oracle or other databases, we would suggest starting by switching the `DBType` to SQL syntax. We cannot offer tech support for other databases that CactuShop has not been specifically designed to work with however.

6.4 The Config Table

6.4.1 Basic operation

As previously mentioned, this largely replaces settings that were held within the config file prior to v4. The database contains the name of the application variable, the value to be stored in it, and an identifier 's' or 'n' to designate whether the variable is a string or a number. So although every value is stored in the database as a string, it is possible to control what type of application variable is created from these settings.

6.4.2 Changing config settings

To edit the config values, go to the *cactushopback/default.asp* page and click the 'Edit Config Settings' link in the centre of the page. This will bring up a list of all settings in groups. To change a setting, click the modify button, update the value, and submit it. Once you have made the settings you wish to change, you must click the 'update' link at the top of the edit page.

Important: the database values held are simply the default values that CactuShop will use to create the application variables. It is the application variables held in memory that the site uses to generate the pages. If you change values in the database using the CactuShop back end, these application values are automatically regenerated when you click the submit button after changing a value. Remember that if you change config settings on the database and upload this, these new settings will not take effect until the server reboots or you edit one of the values from the CactuShop back end and submit the change.

6.4.3 Config settings table

Below is a detailed list of the config settings that can be changed from the 'edit config' page of the back end.

Please note: there is no error checking of these config values to ensure that they are present, or that the values that you set are within the ranges accepted by CactuShop. For example, many settings require a 'y' or 'n', but CactuShop does not check to ensure your entered value complies. Entering values outside of the specified ranges may result in the site behaving erratically or simply not working. Be very careful whenever you edit the config settings and keep a note of any settings you change so you can restore the previous values in the event of errors.

ALLOWABLE LENGTHS

In order to error check database input of strings to ensure they don't exceed the length allowed in the database, we can set values to use in error-checking. These values should be the same as the corresponding field size in the database. If you change the size of those fields within the database, you should update the allowable lengths to ensure error-checking continues to work. If overlong string input is made to a database, some older Access drivers will just truncate the data string, but SQL Server and newer Access drivers will display a database error and the query will fail. All allowable length settings are named in the following format:

[name of database field] + _AL

So for example CD_CardholderCompany_AL is the allowable length of the cardholder company field.

BACK END APPEARANCE

The back end of CactuShop does not use the same 'skin' system used for formatting front end pages. The page display properties are set here in the config table.

back_pagealign (string)

Page alignment of back end pages

back_pagealink (string)

Active link colour for back end pages

back_pagebg (string)

Background image for back end pages

back_pagecolor (string)

Page colour for back end pages

back_pagelink (string)

Link colour for back end pages

back_pagetext (string)

Text colour for back end pages

back_pagevlink (string)

Visited link colour for back end pages

BACK END SECURITY

backendlogin (string)

The login for the back end admin section

backendpassword (string)

The password for the back end admin section

CACTUSPAY

CactusPay is a payment gateway specifically designed for sites where the secure area their web host supplies is on a separate Windows server to their main web space.

CP_CactusPayURL (string)

Full web address of the CactusPay secure area

CP_CallbackPassword (string)

Password used by the secure area when calling back the order confirmation page on the main web site

EMAIL SETTINGS

CactuShop sends mail to both the shop owner and customers for a variety of reasons. To send email from CactuShop, you must have at least one of the supported email methods installed and set up on your web server.

emailmethod (string)

This specifies which of the several supported mail methods, or the two test modes, is used. The four methods currently supported are: 'CDO' (Microsoft standard), 'Jmail' (www.dimac.net), 'ASPmail' (www.serverobjects.com) and 'Persits' (www.persits.com). The two test modes are 'write', which disables mail sending and writes the email to the screen instead, and 'off' which simply disables mail sending altogether. When developing sites on a local machine or network, the test modes allow you to simulate formulating and sending mail without having to install mail components or wait for mail to be sent and received in order to check it is formatted correctly.

mailserver (string)

This is the address of the outgoing SMTP mail server. It might be an IP address or in the form of smtp.cactusoft.com. CDO does not require a value for this setting, but the third party components do.

ownerfromemail (string)

Email address the mail sent from CactuShop will appear to come from

ownername (string)

Name of the shop

ownertoemail (string)

Email address that mail from the web site to the site owner (orders, enquiries, etc.) will be sent to

subjectline (string)

Subject line of order emails to the site owner

subjectline2 (string)

Subject line of order confirmation emails to the customer

ENCRYPTION

CactuShop has an optional crypto package that allows sending of secure email orders from the site.

encrypt (string)

Specifies whether encryption is on ("y") or off ("n").

encryptionkeyfile (string)

This is the name of the key used to encrypt emails sent with the DES encryption add-on. This name should be in the form `yourkeyname.cek`. This keyname will appear unencrypted at the head of the encrypted file to enable the decryption client to know which key to use to decrypt. If you use multiple CactuShops, you can use a different key on each and the decrypt software will know automatically which key to use to decrypt every order.

MISCELLANEOUS SETTINGS

addtobasketlink (string)

This can be set to either `link` (l), `textbox` (t) or `dropdown` (d). The `link` setting displays a hyperlink by each version that when clicked diverts straight to the `basket.asp` page, and adds a single item. The `textbox` and `dropdown` options go to the basket via the `speedorder_process.asp` page and can add multiple items at the same time.

allowedimages (string)

This is a comma-separated list of the image types (extensions) used for images. Files types other than these will be flagged as errors on the back end. A slight performance gain could be achieved by removing file types not used for product or version images.

allowenquiries (string)

Specifies whether the store will feature the 'make enquiry' facility or not.

calcshipcostbyweight (string)

Determines whether shipping cost should be calculated according to the weight of items in the basket or the total value of items.

cookiename (string)

This is the name that will be used for cookies within this install of the shopping cart - makes it easy to prevent multiple CactuShops on the same server from clashing.

defaultcountry (string)

The default country cookie is set when the user first hits CactuShop and this sets the default value of the 'ship to' dropdown. On the second visit, the user will get the country that they selected on the last visit as their default.

extendedcatpage (string)

This determines whether the `prodtype.asp` page should include versions or not.

extendedhomepage (string)

This determines whether the `home.asp` page should include versions of the featured products or not.

headtitle (string)

Page title on back end pages

luhncheckON (string)

The Luhn check is a mathematical test of whether a credit card number is of a valid format or not. It does NOT validate or in any other way determine whether an order is fraudulent or not. The purpose is purely to detect genuine typing mistakes where one or more characters may be incorrect.

minorderval (numeric)

This is the minimum order value of orders you wish to accept, before tax and shipping - can be any value from zero upwards.

ordertracking (string)

Order tracking lets users login and gain information on the progress of their order. If you don't wish to enable this feature due to the added workload of updating order details, it can be easily disabled here (the link on the template will also need to be removed manually).

prodtypemenuasdropdown (string)

This setting specifies whether to display the category navigation menu as a hyperlinked list or a dropdown menu (with automatic submission on change).

prodtypepagesize (numeric)

Controls the number of items shown on each category page – any more items than this in a category and page links (next, previous and numbers) will be automatically generated.

saveInDb (string)

Determines whether the full order text (including credit card details) are stored in the database or not. This should only be considered if the server is well secured and your database is stored away from the http/ftp-accessible space.

searchmaxrecs (numeric)

Controls the maximum number of records found in a search

searchpagesize (numeric)

Controls the number of items shown on each search results page – if any more items than this are found then page links (next, previous and numbers) will be automatically generated.

shiptaxband (numeric)

Determines which band of tax will apply to shipping charges. Note that this value MUST correspond to one of the four tax bands set up on the tax rates page (i.e. 1, 2, 3 or 4). Zero is NOT a valid tax band – if you don't wish to charge tax on shipping, select a tax band that corresponds to a rate of zero.

showbasket (string)

This setting controls how the basket behaves when an item is added to it. There are three options – 'y' means the basket will display when an item is added to it, 'n' means that no basket will display (so the item will just appear in the mini basket). The third choice is to set this value to a number – in this case a message indicating that the item has been added to the basket will display for the number of seconds specified before redirecting back to the product page. **Note:** CactuShop accomplishes the redirection using a meta-refresh HTML tag. This is placed on the page by reference to the `<head>` tag in your template. In order for this redirection to work, your template file MUST include a `<head>` tag in lower case letters.

tracking (string)

This specifies whether statistical tracking is activated. Switching this off can result in a small performance gain.

webshopname (string)

The name of the shop used within emails and on some pages

webshopURL (string)

The web address of the root of the CactuShop installation (not necessarily the root of the web site if CactuShop is running in a folder on the site). A forward slash should be included at the end. This URL value is used to form hyperlinks to certain CactuShop pages within emails.

SHIPPING

zonearray(1) (string), zonearray(2) (string), zonearray(3) (string)
These specify the names of the three shipping zones. If you add more shipping zones as detailed in 4.18.2, you will need to create new config records for the names of these zones.

TEMPLATE

templatelocation (string)
This is the path of the skin template file used to format the front end pages

UNITS

currencyexplanation (string)
A brief explanation of what the currency name (perhaps an ISO code) means

currencyname (string)
Three letter ISO code or name of the currency for use in emails – many email systems will garble currency characters such as £, so ASCII characters only a recommended.

currencyunit (string)
Currency symbol for use in pages

weightunit (string)
Unit of weight used in pages

WORLDPAY

For information on setting up WorldPay, and the purpose of the various WorldPay config values, please see section 5.1

WP_CallbackPassword (string)
WP_CallbackURL (string)
WP_EmailCustomer (string)
WP_EmailMerchant (string)
WP_InstallID (numeric)
WP_I SOCurrencyCode (string)
WP_testmode (numeric)
WP_WorldPayURL (string)

AUTHORIZENET

For information on setting up AuthorizeNet, and the purpose of the various AuthorizeNet config values, please see section 5.2

AUTHNET_CallbackURL (string)
AUTHNET_ReturnURL (string)
AUTHNET_EmailCustomer (string)
AUTHNET_EmailMerchant (string)
AUTHNET_LoginID (string)
AUTHNET_TestMode (string)
AUTHNET_AuthorizeNetURL (string)

7 Language Strings System

7.1 Background

CactuShop v4.5 is a major departure from previous versions of CactuShop in the way it handles non-product text on the pages. In v4.2xx and before, this general text was hardcoded into the ASP scripts. So wording such as the titles on pages, names on buttons, and wording of auto-emails etc. were all hardcoded into the scripts.

Given this, producing a non-English version of CactuShop required some skill in going through the scripts and translating the wording without inadvertently damaging any of the functionality contained within the scripts. Furthermore, if an updated script was released to fix a bug, or a new version of CactuShop came out, the translation would be overwritten by importing the newer scripts. This made it virtually impossible to keep a foreign language version up to date with the current 'master' English version.

Even those in English-speaking countries would generally want to customize the text on pages, and the same problems of overwriting these changes were encountered when installing updates or new versions.

7.2 Advantages of the New Database System

Some other cart systems use simple text files to store the 'language' text. These can then be replaced with foreign language versions as necessary. The problem with text files is that they are difficult to work with, since searching for the correct tag can be time consuming. They also mean the variables are set on each page whether they are required or not. After some experimentation and experience we opted for a databased system instead. This allows the page to only pull out the values it needs and has some other plus-points too.

Unlike text file language systems, working within the database gives more functionality for sorting the strings and categorizing them into the area of the software they apply to. MS Access in particular makes it very easy to sort by a selected field. The database system also allows each record to have a description indicating where and when that tag is used. This should make the process of translation and finding particular tags much easier.

Finally, CactuShop is built with forward-compatibility in mind. Future versions may well have extra language tags that are required for new features. Using a database makes it easier to sort and import the new language tags, ensuring that older translations of CactuShop can be brought up to date with the latest version easily.

7.3 The Language Strings Table

The text strings used throughout CactuShop are stored in the *tblCactuShopLanguageStrings* table. Each record contains a number of features:

7.3.1 LS_ID

The language string ID is a unique identifier used by the language string functionality to pull the language tag from the database. It is a primary key

but as default is not set to auto-number. This makes it easier when importing new language strings in the future.

7.3.2 LS_FrontBack

This is a single text digit to show whether this language tag record is used on the front (f) or back (b) end of CactuShop. It can be useful in sorting the records and allows for the back end tags to be translated separately from the front end tags if required. This is useful for users who only wish to translate the front end to their language and aren't too bothered with doing the back end since the translation is just for their customers' benefit.

7.3.3 LS_Name

The name of the string is used within the ASP pages to pull the value from the scripting dictionary. The names are broadly representative of what the tag represents in English.

7.3.4 LS_Value

This is the actually display text that will appear on the page. It is this text that should be translated and changed for foreign-language versions.

7.3.5 LS_Description

This is a description/explanation of this particular language tag. This text is not displayed or used by CactuShop – it is purely guidance for translators and developers working with CactuShop's language strings.

7.4 The Language Strings Functionality

7.4.1 PageStrings

At the top of most pages, there is a constant called `PageStrings` set. This string of numbers is used by the `LoadStrings` function in the `config.asp` file to pull out the language tags required for this particular page. Each number is the `LS_ID` value of the required string. There are also some strings that are needed on every page (for the minibasket, etc.) specified within the language strings code of `config.asp`.

7.4.2 LoadStrings

This function is called from the `config.asp` file and is located in the `functions.asp` file in the `includes` folder. It formats a query to pull out the required language tags on each page by `LS_ID` value. It creates a scripting-dictionary of all the values and their respective tag names (`LS_Name`). This makes the pages easier to understand since language tags can be referenced by name rather than a totally obscure ID number.

7.4.3 WriteString and GetString functions

These functions pull the actual display text value from the scripting dictionary. `GetString` pulls the value, `WriteString` pulls the value AND writes it to the page. So areas where a string of text is built up but not written to the page (email text for example) should use `GetString`, while you can shortcut having to `response.write` the `GetString` value by using `WriteString`.

8 Support

8.1 Scope of Tech Support

Cactusoft will offer tech support to customers through documentation available from our web site, the knowledgebase and email.

For further details, see www.cactushop.com

We would ask all customers to follow through the tech support channels in the following order:

- a. **Read this manual, especially the FAQ** - 80% of the problems notified to us are covered in detail already.
- b. **Search the knowledgebase** – this online resource on our web site contains questions that previous users have asked, with our answers added. A few keywords should find any issues already listed if they have been previously encountered.
- c. **Ask a question on the knowledgebase** – we give priority to questions added to the knowledge base. The answers will be entered online and will be available to future users who may come across the same issue. We do not publish the email addresses of those posting or add them to a mail list – they are purely used for our admin staff to contact the user for more details if required.

8.2 FAQ

8.2.1 What does the error 'must use updateable query' mean?

This is the most common problem reported by those trying to set up CactuShop. Some pages work OK, even databased ones, but others seem to generate this error. Please refer to section 2.3 for details on how to set up the database with the correct permissions.

8.2.2 What is the database password?

The default database password is 'cactushop'. This can be changed from within Access.

8.2.3 What is the back end login and password?

The default back end login and password on the full version are both 'cactushop'. For information on changing these values, see section 4.1.

8.2.4 Can I change the currency to dollars?

Yes, it is easy to change the currency displayed in CactuShop without changing or messing with the international settings of your server. So even a company in the US can display prices in Euros if they choose. Please refer to section 6.4 for details.

8.2.5 Can I have a full version for a trial period?

We have the lite version for this purpose. The basket is less robust and some of the payment and extraneous functionality is missing, but it should be more than enough to test the set up, customization and operation of the shopping cart. You can even design your skin and populate your database using the lite version.

8.2.6 Will you do some modifications?

We will be happy to quote on any modifications you may need to CactuShop. As a script-based system with a common database format, it lends itself very well to modifications. We can either build entire systems based on it, or just make small adjustments that you or your clients might require. However, we don't make modifications to the lite or full version on a speculative basis ("can you make it do this and then send it to me and I'll probably buy the full one", etc.).

8.2.7 Will the software run on Linux?

ASP can be run on Linux/Unix using third party software (see halcyonsoft.com or chilisoft.com). However, CactuShop is designed, tested and supported only on Microsoft platforms. We cannot guarantee that it will run on non-MS platforms and cannot offer support for platform dependent issues on those systems. We would therefore suggest setting up the lite version first to satisfy yourself that the full version will run.

8.2.8 What is your upgrade policy?

We offer free upgrades to customers for a period of six months after the initial purchase. This includes any equivalent new versions of the product (i.e. if you purchased version 3 less than six months ago, you can get a free upgrade to v4). If you obtain an upgrade in this way, we also permit you to upgrade other CactuShop licenses that you purchased or own with the new code. If you need to upgrade an older license, there is a £50 (British Pound) admin fee, but you may upgrade other CactuShops you own with this. The charge is purely for admin purposes, it's not a new license.

8.2.9 Can I use a visual editor?

The 'skins' template feature is designed to make visually designing a site far less problematic. The visual design and functional elements are separated meaning your programmers can modify code while your designers work on the appearance. The template is designed with no hidden code sections or other features that might be distorted or misread by visual editors. However, we would advise against editing the other pages in a visual editor, even newer versions of FrontPage and Dreamweaver that claim not to modify code. A good text editor such as the one with MS Visual InterDev is best. If you are stuck with Notepad, try using the excellent free 'Metapad' (www.liquidninja.com/metapad/) instead – this is as small and quick as Notepad but has essential code monkey features like line numbering and multiple undo.

8.2.10 How does the licensing work?

The first copy of CactuShop you purchase is £200. Subsequent copies are £100. Even if you bought a previous version, you are still entitled to the 'subsequent license' pricing. For developers using large quantities of licenses (more than 20 per year), please contact us for discounted rates. The license number must be visible in the HTML code that the *buildpage.asp* include generates.

8.2.11 How much is it in US Dollars?

CactuShop is £200, which at the time of writing is a little under US\$300. Your card will be billed £200 and the charge you will actually pay will be the converted rate in your local currency plus any commissions your credit card

company might apply. If in any doubt about the exact amount in your local currency that you will pay, please check with your credit card company first.