

GeniusCart II Manual

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Acknowledgements

Jene Hughes for vetting this and other documents

My clients, without who GeniusCart would never have become so useful.

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Why Use GeniusCart II?

GeniusCart II is an easy to learn shopping cart system designed for small to medium sized retailers wishing to expand their business into the world wide web market. Once installed and configured, GeniusCart II provides retailers a solid foundation for successfully selling products on the Internet.

One of the greatest benefits of GeniusCart is how it frees retailers and developers from being locked in to any particular software vendor. The technology of GeniusCart II is open sourced, meaning that any skilled web developer can modify the program to fit the individual needs of any business without having to first ask the owner of the software, GeniusWeb.com LLC. Retailers benefit as well by having all of the code under their own control, freeing them from dependence on any single developer. See Appendix I: Licensing for more details on the terms of distribution.

GeniusCart II is also very customizable, both in visual appearance and in functionality. The template system permits designers to change the style and layout of the majority of the customer-visible user interfaces simply by editing template files. The template markup system is easy to understand and is documented more fully in Appendix III: Template Markup.

GeniusCart's functionality can also be extended in a number of ways. Not only does the system have a well defined structure that allows it to support new payment gateway systems easily, but it also offers a similar

structure for shipping quotes.

System Requirements

GeniusCart version 2.19 and newer require the Apache web server running PHP version 5.x and a MySQL database version 5.x or newer.

GeniusCart was developed to use the PHP's translated system calls whenever possible so that it should work on all operating systems. However, it is only tested regularly on Linux platforms and it is recommended that it be used on Linux servers.

Technical Assistance

GeniusWeb.com LLC, the software's owner and principal developer, offers installation support for GeniusCart on an hourly basis. Check the official GeniusCart website at <http://www.geniuscart.net/> for other support options.

Retailers with uniquely customizable products, special inventory management concerns, or other unconventional business logic requirements should contact the specialists at GeniusWeb.com for a quote to adapt GeniusCart to their unique needs. Visit the website at <http://www.geniusweb.com/> to make an inquiry.

GeniusCart History

GeniusCart is the result of more than a decade of shopping cart evolution and improvement. Development began in 1995 with an extremely simple set of web browser processed scripts to allow ordering from websites using a web browser's built in mailer feature, written by Matthew Steven for his eco-friendly retailing business.

As Matthew began to consult with other retailers and support their commercial efforts online, the scripts were adapted for the use of other companies as well.

The needs of the few retailers who used it at the time quickly outgrew that simple process and the application was redeveloped into a set of server-side scripts, written using the Perl language, which included an administration control panel for the first time, semi-dynamic generation of search engine optimized pages, and dozens of features that were unheard of in shopping carts of that generation. It took the name GeniusCart, after the company (GeniusWeb.com) behind it. A free version with limited functionality was available along with a full featured professional version, both with proprietary licenses.

Over the next decade GeniusCart was used to process hundreds of thousands of orders while evolving per the advice of the retailers who were using it. The constant feature growth revealed a problem: GeniusCart needed to be redesigned in a more modular, object oriented manner to better accommodate change. The subsequent rewrite using PHP enabled support for the influx of new payment providers and the ever more complex shipping requirements of GeniusWeb.com's customers.

GeniusCart II was developed thanks in part to the sponsorship of the Soap Crafters Company who liked GeniusCart but wanted more features than it was able to accommodate. GeniusWeb.com built the foundations of the new system over the course of about four months and has continued to add to and maintain it to this day.

Installation

GeniusCart's installer supports both interactive and batch install modes, making multi-site installations easy to maintain.

Installation is best accomplished by an experienced system administrator, preferably with superuser privileges.

The installer script is designed for Apache installations on UNIX/Linux computer systems and since it is a fairly simple Perl script, it can be easily adapted for other systems.

The installation program also supports a batch upgrade/install mode, which makes it easy to keep multi-site installations updated.

SSH/Shell Installation (Recommended)

To avoid loss of data, *be sure to back up your database and files* before running the installer. The installer may replace and overwrite certain files and directories, so it is important to read this entire installation guide before beginning to avoid unintended consequences.

Installation is best accomplished by an experienced system administrator using a UNIX shell, such as Bash. To begin, you should move the

software archive file to a temporary installation folder on your web server, and log in with secure shell or another console program. The latest GeniusCart archive can be found at <http://www.geniuscart.net/>

Once you have the archive file on your server, you should extract it using the tar program and then change into the directory:

```
tar jxvf gc2_xy.tar.bz2
cd gc2_xy
```

Before running the installation program, a choice about whether to install as root or as a normal user should be made. The root install will create a shared library folder under /usr/local/geniuscart which allows all installations of GeniusCart on your server to use the same library files. For a multi-site installation it is better to share the common library code among different sites.

When the installer is run as a normal user, it will install those libraries in a "lib" folder relative to the site root.

Since the libraries are overwritten on every install or upgrade, they are not intended to be user-modifiable. Any library modifications will require the maintenance of a separate patch set and application of any such patches after upgrades.

Next run the installation Perl script with the user-id that you want user-modifiable files such as templates to be editable by as its argument. In our example it is a ftp-enabled user called customer1.

```
./install.pl customer1
```

You will then be asked for the path to the server root. The server root is not the same as the document root, the server root is typically the directory one level above the document folder on your server. Enter the correct path to your server root.

```
Enter the server root path : [/var/www]
/var/sites/site1
```

If the installer can't guess the name of your document root (where your public web files are), it will prompt you to enter it.

```
Enter not the full path, but only the name of the
folder containing your HTML files :
/var/sites/site1/[web] www
```

The installer then requests a support ID# which is an optional code that you may be issued by GeniusWeb.com to help expedite your tech support. This information may be used to identify your installation of GeniusCart. If you have a code, type it when prompted. Type your code, or leave it blank, then press "Enter."

Your files will then be installed. Some folders and files will be overwritten by the installer. When that happens, a backup of the file is created as a safety measure. To leave the backup files in place, answer "n" when asked if you want to delete them. The backup files typically are named the same as the original file but with a tilde (~) appended.

Once you are comfortable with the installer you will want to remove those backup files regularly; that is what the batch mode will do.

Finally, the installer will set the hard-coded paths in the script files to the locations they were installed into and emit some information about setting up your database.

When upgrading, check the 'setup/sql_updates' folder to see if any version specific SQL needs to be run. For example, to upgrade from 2.10 to 2.12, run both the gc_2.10-2.11.sql and the gc_2.11-2.12.sql files in the database, in order, to bring all functionality up to date.

Upgrading readers can stop here.

For new installations, there are a few steps remaining. First, add an ad-

administrator user and initialize your database.

First, open the `setup/setup-mysql.sql` file in your favorite text editor and at the end of the file add an `INSERT` statement with your own information in place of “username” and “password” as shown here:

```
INSERT INTO Admins SET Username='username',  
Password=MD5('password'), access_level='full';
```

Next, feed this file to your database. If any errors occur, edit the file to correct them and re-load it again.

```
cat setup/setup-mysql.sql | \  
mysql -u [youruser] -p [yourdatabase]
```

If you have a web based SQL manager, you may choose to feed the contents of the `setup-mysql.sql` to it, but the command line method is recommended for accuracy.

One more step is needed after that. Be sure to edit your `config.inc` file so that it has your database information correctly listed. More information about configuration may be found in Appendix II.

Optionally, you may wish to set up the `site.log` file at this point to diagnose any further problems with the cart. Simply create the file and enabling logging in the `config.inc` file. When the site root is not writable by the Apache process, you will need to either enable the write bit on the site root folder, or create the `site.log` file as superuser and change its ownership to that of the apache user:

```
touch site.log  
chown www-data site.log
```

Once that is accomplished, your new `site.log` file will track any serious errors that occur. You may also wish to enable the feature to email the administrator anytime a serious error occurs as well.

See Appendix II for more information on configuration options for your new GeniusCart site.

FTP Installation

GeniusWeb.com does not officially support having GeniusCart installed over FTP. The following describes how it could be done if you have no shell access options.

To accomplish an FTP install, open the `install.pl` file in a text editor and perform the tasks that it normally does with code, including the mass replacement of hard-coded path markers, then transfer your files over to your server. Set up your `config.inc` and SQL database as described in the previous section.

It may be possible to run the install script locally with few modifications if there is a Perl interpreter installed and available in the local command shell's path.

It is the intention of GeniusWeb.com to develop a web based installer in the near future to ease installation for those who do not have remote shell access. Watch GeniusCart.net for updates.

Using GeniusCart

GeniusCart II has all of the user-configurable settings and day to day operations consolidated into a single control panel style application. This is typically found in the path /gadmin/index.gc on your domain once the system is installed.

Logging In

Log in using the information that was entered into the SQL setup file during installation. If that step was skipped, be sure to complete it now. Once your initial admin account is in the system, it is possible to use it to create additional logins with various permissions.



Illustration 1: Menu

Order Management

The first link on the left menu bar is "Manage Orders." You may click on those words to see what orders are waiting for acknowledgement.

Orders in GeniusCart have two possible states. They can be "Un-

printed,” which means they are new and have not yet been through fulfillment yet, or “Printed” which means they're fulfilled. These two words can be replaced using the “Site Variables” configuration section if you don't think this is the best language for your fulfillment process.

Normally, your order management tool will only show Unprinted orders. View the Printed orders by clicking the “unfiltered” link just below the lookup field.

Clicking the order ID link presents a screen similar to the following:

Billing:		Shipping:		Paid with... Credit Card Verified locally			
Matt Steven		Matt Steven		Credit Card Used:			
GeniusWeb.com		GeniusWeb.com		4111111111111111			
2134		Alabama		05/05 ID: 00			
Alabamatown, AL, 92344		Alabamatown, AL, 92344		Customer Comment:			
US		US		fake order, please disregard +1.7125802983 matt@matts.org			
Edit		Edit					
SKU	Item Name	Extra Info	Unit Cost	Quantity (0 cancels item)	Shipped? (All)	Tracking #? (Copy)	Total Cost
sample6	A Very Large Grail		\$12350.00	1	<input type="checkbox"/>		\$12350.00
sample2	Used Candle Stand	Candle Color Choice: gold	\$93200.00	1	<input type="checkbox"/>		\$93200.00
Shipping: UPS 3 Day Select							\$37.46
Handling: UPS 3 Day Select							\$0.00
Sales Tax:							\$0.00
Grand Total:							\$105587.46

Illustration 2: Order Detail

Each order has a billing and shipping address displayed in the upper left portion of the order grid. The payment details appear on the upper right, and typically include information such as approval numbers, payment ID numbers or whatever the payment system that was used to handle the order provides. Note that CVV numbers are never stored permanently by the cart, this is to ensure compliance with credit card company rules.

Below the address and payment information boxes is a product list. Each item can have its price adjusted, be marked as shipped, and have a tracking number assigned on a per-product basis to allow for separate shipments. The tracking number is shown to the customer when they log into their account to check their order status, and will link to the appropriate tracking website.

Finally the amounts for shipping and other fees are displayed and may be edited. *Please note that changing an item price will not cause the order to re-calculate at this point!* Any alterations done at this point will require a manual adjustment of totals.

Product Management

Most aspects of product management are adequately documented within the program screens; however, the inventory system is an occasional source of confusion.

The inventory system maintains a count of how many of each item has been sold, and may be used to prevent a customer from ordering more items than are in stock, which may be useful for unique or closeout products.

There are limitations to the usefulness of this feature however: the feature will either apply to all products in the system or none, and cur-

rently there is no support for per-product inventory limiting. Also there is no provision for inventory of specific colors or sizes, for inventory control on such a fine grained basis create a unique SKU for each item type.

The Site Variable Disable_Inventory must be “0” to enable these restrictions. Inventory should be disabled by default if you don't need any of these special features on a regular basis.

Another frequent source of confusion is the category system which is detailed in the next section.

Category Management

Categories are used to organize your products in a sensible way and make them easier for customers to find. The structure of the category associations are very tree-like, in that each sub-category (branch) has a single parent category and may have numerous sub-categories of its own. They are also completely optional, some customers prefer to simply rely on the excellent search functionality in GeniusCart instead.

Classification

(1) Setup categories for this product to well organized site.

You must create a product before you are able to work with the category structure. Any particular category can be associated with an unlimited number of products. All category management features are accessed from that link on the product entry/edit page.

The “Category Utils” link allows major reorganization or customization of entire categories. Use it to have certain categories use different templates, or to move products in bulk to other categories.

Other Features

Each section in the cart should contain adequate documentation, but if anything is unclear or you think it could use better documentation, please contact GeniusWeb.com LLC with your requests.

Appendix I: License

GeniusCart II is licensed under the terms of the GNU GPL. In the words of the the Free Software Foundation, this is what the license is about:

Nobody should be restricted by the software they use. There are four freedoms that every user should have:

- the freedom to use the software for any purpose,
- the freedom to change the software to suit your needs,
- the freedom to share the software with your friends and neighbors, and
- the freedom to share the changes you make.

GeniusWeb.com LLC offers you this software free of charge and under generous terms by using this license, but of course we do not provide any warranty under these terms. For the full terms and conditions, please read the file "LICENSE" in the software distribution.

Appendix II: Configuration Options

GeniusCart is highly configurable and uses two different methods for configuration. Global and system oriented configuration options are set in the “config.inc” file that is located at the site root of a GeniusCart installation. Cart behavior and other options are configured interactively through the cart's “Site Variables” section.

Caution should be exercised when altering configuration settings that are unfamiliar or undocumented. There may be gaps between new configuration options being released and this document being updated. Utilize the support options available to you to resolve any questions you have.

Global “config.inc” Options

Abbreviations used in the following table are described here.

Letter	Type	Description
S	String	Varies
B	Boolean	Either “true” or “false”
Y	Yes/No	Either “yes” or “no”
A	Array	Containing multiple strings, or “Array()”

Configurable items in config.inc:

Option	T	Description
http_root	S	The publicly viewable website URL
docu_root	S	The filesystem path to your public documents folder
lib_path	S	The path to the GeniusCart II libraries
cache_enabled	B	Whether to use any caching for your templates
prod_img_dir	S	Relative path to product image folder
prod_thumb_dir	S	Relative path to product image thumbs
tmpl_root	S	The full path to your template folder
default_lang	S	Sets which templates to use. "en" default
use_sandwich	B	Uses header/footer on middle templates
case_insens_logins	B	Should customer logins be case insensitive?
prod_by_pid_dir	S	Mod_Rewrite path for special product paths
log_store_path	S	Temp path for temporary report storage
support_email	S	The reply-to email for generated emails
admin_email	S	The email where error reports will be sent
email_sys_errors	Y	Email notification of serious errors?
email_usr_errors	Y	Email notification of user-caused errors?
log_sys_errors	Y	Should serious errors be logged to a file?
log_usr_errors	Y	Should user-caused errors be logged?
logfile	S	Full path to the log file
prod_bypass	S	Relative URL for product display frontend
cat_bypass	S	Relative URL for category display frontend
using_graphic_submits	B	If you insist on using graphical submit buttons, set this to true. Avoid if possible.
order_hooks	A	See hooks/example.php for details
use_encryption	B	Encrypt credit card data in the database
encryption_key	S	The key for encrypting the cards
disallow_credits	B	Suppress display of GeniusCart branding

Appendix III: Template Markup

GeniusCart's template system uses HTML-like tags both for drop-in replacement purposes and very simple branching logic.

Drop-In Tags

Database information is typically transferred through to templates via HTML style tags. For example, the customer's first name will often be represented with this tag:

```
<Firstname>
```

When the GeniusCart Template parser encounters this piece of text, it will replace it with the customer's first name as it appears in the program.

Any tag that is not an HTML tag is probably a data tag. When in doubt, compare the output live on the server with the template file.

This style of tagging was created prior to the evolution of other more editor-friendly tag styles and may confuse some HTML editors. You may have to ask some editors to treat the HTML document as plain text in order to avoid confusing them.

Administration Templates

The templates that exist in the [/templates/lang/admin](#) folder are overwritten whenever the software is upgraded. You should not change those templates, but if you have to for some reason, you will want to maintain a patch for them.

Branching and Including Constructs

GeniusCart's branching constructs in templates exist to allow the designer to control what content is shown and what is not.

For example, you may wish to suppress display of gift certificate information if no gift certificate is present in the order. This can be accomplished by using IF tags. View the default contents of the file [templates/lang/review.html](#) to see some good examples.

Or, you may wish to include the output of some construct. The language constructs are as follows, using the term "Datafield" in place of what data field you would use as a conditional:

Starting Tag	Terminating Tag
IF_Datafield	ENDIF_Datafield
IFNOT_Datafield	ENDIF_Datafield
INCLUDE_Datafield	--NA--