



eCommerce integration: Sample PHP script

Introduction

As part of our support package for publishers wanting to use our eCommerce integration feature for either the Safeguard or Protector products, we have made available a sample script in PHP so that publishers or their web services providers can gain insight into how the feature can be implemented.

This PHP sample was developed to work with the “X-Cart E-commerce system” and has been successfully implemented as shown with version 4.0.0.1 of that product. This does not imply that it is endorsed by X-Cart.

It is provided as a tutorial for PHP programmers. It is not intended for use by non-programmers, unless you are using X-Cart and have some deep IT knowledge. With sufficient expertise it may be modified to work with virtually any other PHP based E-commerce system supported by a MySQL Database.

LockLizard make this script available solely as a tutorial. It is not guaranteed to work as shown in your own environment. LockLizard do not provide any technical support for this sample ecommerce integration script.

Functions/processes supported by the script

The script has been designed to support three business processes: Adding a customer; Keeping a copy of the license issued to them; and, Automatically issuing authorization for a document or publication once it has been paid for. The specific functions are:

1. Provide the publisher with a copy of the data that is stored on the LockLizard server for storage in their own database on their own server(s).
2. Provide the publisher with a copy of each customer license file issued by the LockLizard Administration system on their own server(s) for backup and re-issue purposes. (The purchaser can easily access their license file from your site, should they lose it.).
3. Automatically issue a document/publication license once a customer’s payment has authorized by the merchant service.

The next sections guide you through the process of integrating your ecommerce system with LockLizard’s Servers to achieve the above capabilities. They are split into two sections:



1. Integrating with the X-Cart system.
2. Integrating with Other Shopping Cart systems.

IMPORTANT NOTE:

In these example PHP integration scripts, the username/password are shown as hardcoded in the scripts.

For security reasons you should consider keeping this information separate from the scripts, stored in the MySQL database. This will also enable you to develop a system whereby you can change these fields without having to re-code the application. This is advised so that you can, for instance, have the development work carried out by a third party, and then ensure that they cannot continue to have information that would grant them access to your data.

One way to achieve this would be to have a separate, simple PHP script containing a form where you as the publisher (or your Administrator) can enter the current username/password. The data can then be saved to the MySQL database and retrieved by the modified LL sample connectivity scripts when it is needed to issue a command.

Integrating with X-cart

Requirements:

The following software applications need to be installed on your server. The latest versions should be used.

- PHP with cUrl
- X-Cart Installation
- MySQL Database

Integrating with X-cart is a three step process:

- 1) Creating the Tables in X-Cart's Database needed to hold LockLizard Data.
- 2) Copying the contents from the 'new_files/root/' Directory in this package to the X-Cart's Installation Directory.
- 3) Modifying the X-Cart Files to do the 'hook-up'

These steps are now described below in more detail.



Step 1

Script to run for creating Tables in X-Cart's DB to hold the LockLizard Data.

```
/* Create Table SQL Scripts */
CREATE TABLE `locklizard_accounts` (
  `customer_id` INTEGER UNSIGNED NOT NULL DEFAULT 0,
  `customer_name` VARCHAR(45) NOT NULL DEFAULT '',
  `customer_email` VARCHAR(255) NOT NULL DEFAULT '',
  `customer_company` VARCHAR(45) NOT NULL DEFAULT '',
  `valid_from` VARCHAR(12) NOT NULL DEFAULT '',
  `expires` VARCHAR(45) NOT NULL DEFAULT '',
  `number_of_lic` INTEGER UNSIGNED NOT NULL DEFAULT 0,
  `suspended` BOOLEAN NOT NULL DEFAULT 0,
  `xcart_login` VARCHAR(45) NOT NULL DEFAULT '',
  PRIMARY KEY(`customer_id`),
  INDEX `idx_xcart_login`(`xcart_login`),
  INDEX `idx_customer_email`(`customer_email`)
)
ENGINE = MYISAM;

CREATE TABLE `locklizard_documents` (
  `document_id` INTEGER UNSIGNED NOT NULL DEFAULT 0,
  `document_title` VARCHAR(45) NOT NULL DEFAULT '',
  `date_published` VARCHAR(45) NOT NULL DEFAULT '',
  `expires` VARCHAR(45) NOT NULL DEFAULT '',
  `xcart_productid` INTEGER UNSIGNED NOT NULL DEFAULT 0,
  PRIMARY KEY(`document_id`),
  INDEX `idx_doc_name`(`document_title`)
)
ENGINE = MYISAM;

CREATE TABLE `locklizard_publications` (
  `publication_id` INTEGER UNSIGNED NOT NULL DEFAULT 0,
  `publication_name` VARCHAR(45) NOT NULL DEFAULT '',
  PRIMARY KEY(`publication_id`),
  INDEX `idx_pubname`(`publication_name`)
)
ENGINE = MYISAM;
```

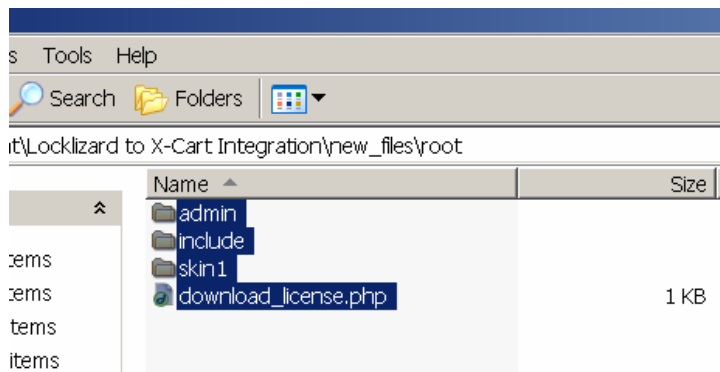


```
CREATE TABLE `locklizard_licenses` (  
  `customer_id` INTEGER UNSIGNED NOT NULL AUTO_INCREMENT,  
  `license` BLOB NOT NULL DEFAULT '',  
  PRIMARY KEY(`customer_id`)  
)  
ENGINE = MYISAM;  
*/
```

Step 2

Copying the contents of the 'new_files/root/' Directory in this script package to the X-Cart's Installation Directory.

If you look in the Directory you will see that there are four folders which contain the files that you will need to install in order to provide the integration functions described above.



In the information that follows we assume that you are working on a server, and therefore that you will substitute www.yourdomain.com for whatever is the domain name you will use. **Please note:** We do NOT recommend that you use numeric domain names because the use of these may restrict your ability to move the physical server contents around in order to satisfy your operational requirements.

1) File - www.yourdomain.com/include/classes/locklizard.php

This file contains all the scripts used for all communications between your environment(s) and the LockLizard Administration server. It is, you might say, the engine of the Integration.



2) File - www.yourdomain.com/admin/locklizard_reload.php

RELOAD RESULTS	
Retrieving all Documents	
Response:	OK
Record Count:	10
Retrieving all Publications	
Response:	OK
Record Count:	10
Retrieving all Customers	
Response:	OK
Record Count:	8

When this script is executed, all the data for your site from LockLizard's Servers are loaded into the 4 local tables (which were created in step 1), `locklizard_licenses`, `locklizard_documents`, `locklizard_publications` and `locklizard_accounts`.

You would normally run this script to synchronize data each time a new publication or a document is added to the LockLizard administration system in order to ensure that you have the correct document or publication name for use with your web site. It is also essential to note the X-Cart ProductCode and Locklizard Publication name must match character for character. It is case sensitive.

3) File - www.yourdomain.com/download_license.php

This script file uses the X-Cart Login ID as a form post variable, and then streams the LockLizard License to the caller's browser so it can be downloaded by them. This assumes that you have provided relevant text on the caller's browser to explain to them what is happening, and what they are supposed to do with the license file that they are being provided with.

4) File - www.yourdomain.com/skin1/modules/doc_licenses/doc_licenses.tpl

This file is an X-Cart Template which displays a link in the caller's profile so that he/she can download their license again if they wish. It is useful if they have to re-create their machine following a disk failure.

Step 3

Modifying the X-Cart Files to do the 'hook-up' between X-Cart and LockLizard.

We suggest that you may find it helpful to copy and paste information from the file 'modified_files/modified_files.txt' file included in this package rather than trying to type the information.

A short description of the effect of each modification is provided below to help you better understand how the systems are connected, and as a guide to assist you if you are porting to another e-commerce system.



In total, in this example, seven modifications must be made to the X-Cart system to deliver the functionality described.

1) File - www.yourdomain.com\config.php

This modification is used to add the global LockLizard object to the X-Cart Application and the 'Smarty Template.' In this example the global object is called '\$green_lizard' and it is used throughout the other file scripts given below.

NOTE: You will need to input your own LockLizard supplied username and password in this script before it will function correctly.

```
#####
413: # global locklizard object
414: @include_once($xcart_dir.'/include/classes/locklizard.php');
415: $green_lizard = &new locklizard('Locklizard Supplied User Name', 'LockLizard Supplied
Password');
416: $smarty->assign("green_lizard", $green_lizard);
#####
```

2) File - www.yourdomain.com\cart.php

This modification is used to add/create a new customer and issue a license (an email is sent to a new customer from LockLizard, which has the instructions for downloading the viewer, installing it and using the attached license file). If the customer is already registered it retrieves the customer license and stores it in the publisher's local Database.

```
#####
807: $ll_custid = $green_lizard->get_custid($login);
813: $green_lizard->get_customer_license($ll_custid);
816: $green_lizard->add_customer(trim($new_account['firstname']) . ' ' .
trim($new_account['lastname']), $new_account['email']);
#####
```

3) File - www.yourdomain.com\download.php

This modification is used to automatically grant access to a publication of a specific title or a single document whenever the customer is shown the download page for one (or more) protected documents that are part of that publication. In processing terms this should happen once a successful payment has been made.

```
#####
71: #myname@email.com locklizard integration start
74: $ll_custid = (int)$green_lizard->get_custid($login);
75: $ll_docid = (int)$green_lizard->get_docid($product_data['productcode']);
76: $ll_publication_id = (int)$green_lizard-
>get_publication_id($product_data['productcode']);
83: $green_lizard->get_customer_license($ll_custid);
84: $green_lizard->grant_publication_access($ll_custid, $ll_publication_id);
85: //$green_lizard->grant_document_access($custid, $ll_docid);
#####
```



```
88: $green_lizard->add_customer(trim($new_account['firstname']) . ' ' .
trim($new_account['lastname']), $new_account['email']);
89: $green_lizard->grant_publication_access($green_lizard->get_custid($login),
$ll_publication_id);
90: //$green_lizard->grant_document_access($green_lizard->get_custid($login),
$ll_docid);
92: #end of myname@email.com locklizard integration
=====
```

4) File - www.yourdomain.com\skin1\admin\menu_admin.tpl

This modification adds a link to the administrator menu making it easier for the publisher to run the LockLizard Reload Script. Please note that only users with Systems Administrator privileges will be able to access this menu.



```
=====
21: document.write('<a
href="javascript:window.open(\'https://yourdomain.com/admin/locklizard_reload.php\',\'popupWi
ndow\',\'toolbar=no,location=no,directories=no,status=no,menubar=no,scrollbars=yes,resizable=
no,copyhistory=no,width=220,height=300,screenX=150,screenY=150,top=150,left=150\');myRef.focu
s();" class="VertMenuItems" >LockLizard Reload</a>');
=====
```

5) File - www.yourdomain.com\skin1\customer\main\order_message.tpl

This modification displays the “Download License” Button on the order success page.

```
=====
9: {include file="dialog.tpl" title=$lng.lbl_confirmation
content=$smarty.capture.dialog|cat:$green_lizard->display_licenses($login)
extra="width=100%"}
=====
```



6) File - `www.yourdomain.com\skin1\customer\menu_cart.tpl`

This modification includes a link in the customer menu to the document licenses template. This link allows customers to re-download their license when necessary.

```
#####  
32: {if $green_lizard->get_custid($login) > 0 }  
33:<A href="cart.php?mode=doc_licenses" class="VertMenuItems">Document License(s)</A><BR>  
34:{/if}  
#####
```

7) File - `www.yourdomain.com\skin1\main\orders_list.tpl`

This modification displays a download link when the customer clicks on their order history and opens up a past order.

```
#####  
147: {include file="dialog.tpl" title=$lng.lbl_search_results content=$green_lizard-  
>display_licenses($login)|cat:$smarty.capture.dialog extra="width=100%"}  
#####
```

The section addressing integration with X-Cart is now complete.



Integrating with Other Shopping Carts

There are three main types of shopping cart systems, all of which can be successfully integrated with the LockLizard ecommerce integration module:

- 1)** develop the shopping system in house, using a merchant account or a transaction provider for processing online payments. In this case, it is very easy to make the LockLizard ecommerce integration. The shopping cart resides on the publisher's server, making it easy for a programmer to alter its functionality/design;
- 2)** instead of developing your own shopping cart, use an open source or licensed shopping cart, such as the X-Cart system. The publisher can link it to a merchant account or to a transaction provider, and he can integrate it with the LockLizard ecommerce scripts, as detailed in the X-cart sample scripts provided. In this case, the shopping cart is also placed on the publisher's server, making it easy for a programmer to alter its functionality/design;
- 3)** use a complete, predefined solution, that integrates both a shopping cart and a merchant account, like 1shoppingcart.com. In this case, everything is stored on the provider's server, not on the publisher's server. The publisher must predefine the products and prices on the provider's web panel and he must stick to whatever is offered - since the scripts are not placed on the publisher's server, the publisher cannot customize them to integrate with the LockLizard ecommerce system.

However, there is a work-around: use the order confirmation emails, as they are received on the publisher's mail server or mail client program, on which the publisher can deploy scripts for the LockLizard ecommerce integration. When an order is placed via their shopping cart, after the payment is confirmed, their server sends the publisher a payment/order confirmation email. The publisher must develop a set of scripts that monitor a given email account, looking for payment confirmation emails. When such an email is received, the script scans it, extracts the order data (customer name, purchased products, product options, etc) and then it can put this data to an ecommerce command sent to the LockLizard ecommerce system. This implementation can be achieved using server-sided programming, like Java, Perl, C, etc.

The example of the integration with the X-Cart shopping cart system is not going to fit every case perfectly. However, it is reasonably typical of the way in which shopping cart systems work, because there is nothing particularly revolutionary being carried out.

The basic steps that have been described are those of:



- synchronizing an internal web system with corresponding information held in the LockLizard Administration system;
- adding a customer to the LockLizard Administration system;
- authorizing a customer to use a document or a publication.

All shopping cart systems require that they have a product ID which they are selling (corresponding to either a document ID or a publication title), and that there is a customer who purchases them.

Also, all shopping cart systems follow the process of collecting together the items being purchased, going into credit card processing and getting authorization (or otherwise) for the transaction before releasing the customer into being able to access (usually download) the item(s) they have purchased.

They will have established the customer's identity (name) and, for integration purposes, they **MUST** be required to collect the customer's eMail address unless you intend to replace the LockLizard function of sending out an eMail with your own browser based interaction with your customer (i.e. displaying a download link for the license file).

You will need to modify the guide scripts in order to pick up the variables that you need from the shopping cart system you have selected instead of those being used in the X-Cart example.

Obviously you will need to have studied the guide example in order to see which fields are being addressed because they will be required by the LockLizard Administration system. Then you will be able to modify the relevant parts of the example to fit the information being provided by your own shopping cart provider. In general we have found that:

1. Step (Create the Local Tables); this step should not change very much because it is mainly establishing the data definition that will be used in your own Database for holding information.
2. The main changes will be made in the 'locklizard.php' main class file where you will need to look at all SQL statements to make sure that they match up properly with actual table names in your ecommerce Database.
3. You will need to read through the X-Cart Installation instructions and make adjustments to fit specific cart implementations.



Because all shopping cart systems are implemented in different ways we are not able to offer more detailed guidance. Our support staff are LockLizard product experts, but they are not shopping cart experts and are not able to answer questions concerning the implementation requirements for a particular shopping cart provider. If you need information about the database definitions for a particular shopping cart system please contact the supplier of that product directly.