Ch-Ching! User Manual



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What's Included?

The Ch-Ching! database application entitled *ch-ching.fp3*. This database requires the use of either FileMaker Pro 4.x or the free run-time edition of FileMaker available from our Web site for download. Note that if you are intending on serving your store on a Windows based computer, or you intend on taking advantage of FileMaker Remote Mode (described later in this manual) you will need a full, licensed edition of FileMaker 4.x.

An *admin* folder containing HTML files that acts as the remote administration module.

Payment processing folders ats, authnet, exact and post containing HTML files that allow you to accept credit card transactions.

A *startup items* folder containing HTML files that could be configured to provide your store with additional functionality. This module is optional.

A *store* folder containing HTML files that acts as your actual Ch-Ching! store, to customize the user interface of your store, you should read further in this manual to learn about editing these files.

A Java Modules folder containing optional Ch-Ching! modules that provide specific store functionality.

A Web folder containing a default page and FileMaker security database to replace the contents of the Web folder contained within the FileMaker application folder. This module is only used if you choose to use FileMaker Remote Mode.

A User Manual describing how to configure, serve, and administer the Ch-Ching! store.

Features of Ch-Ching! ___

Design - Easily design your Web store with most, popular graphical Web editors including Adobe GoLive and Macromedia Dreamweaver. No custom programming knowledge required.

Deployment - Build your store on either MacOS or Windows platforms and deploy on either interchangably without needing to make modifications.

Scalability - Small stores can be hosted at many Mac and Windows based ISPs. Later you can upgrade to a self-hosted store and custom integrate with your existing FileMaker based business applications.

Performance - Stores containing thousands of products return search results in tenths of a second.

Payment Processing - Real-time credit card and electronic check processing via multiple financial transaction networks. Offline payment processing also supported, including COD, and company purchase orders.

SSL Support - Supports Web servers running SSL v2 and SSL v3.

Administration - Complete remote administration via a Web browser on virtually any platform. On-site administration can be performed by any MacOS or Windows computer on the network.

Foreign Localization - Easily deploy foreign language stores. Supports all foreign character sets and currency symbols.

Flexibility - Design solutions that operate and appear unique. Exclusive shipping API supports charging virtually any shipping and handling combination based on many variables. Direct support of UPSonline shipping pricing.

Database Architechture - Store and retrieve customer data. Produce dynamic content based on any search criteria or variable. Design auto-populating templates.

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Register Thy Software

Without a valid activation key, Ch-Ching! will work with full functionality for 30 days. After which, upon opening Ch-Ching!, you will be reminded that to continue using Ch-Ching! you will need to purchase a serial number or convert your pre-purchased serial number into an activation key and Ch-Ching! will cease to operate until that time. This will NOT affect your stored data such as customers, orders or products. You will not lose this information and you will be able to resume use of Ch-Ching! as soon as you serialize the application.

Registered users are eligible to receive 30 day up-and-running technical support for Ch-Ching!. Notification of updates, bug fixes, and special offers will be sent to registered users. Additionally, registered users are entitled to one custom developed shipping script (described later).

To obtain your activation key that will allow Ch-Ching! to operate beyond the 30 day demo, visit the registration page at the Imacination Web site (http://www.imacination.com/).

The following store settings, Company Name, SSL URL, and the store database name cannot be changed after you register Ch-Ching!, so your store should be configured and tested before you register your software.

Once you have received your activation key, go to the "About..." menu in your Ch-Ching! application and press the register button. You will be prompted to enter an activation key. Enter the number you received and press "OK." If your number is valid, Ch-Ching! will display the word "LIVE" under your store name in the "About..." menu.

Getting Technical Support

Registered users of Ch-Ching! may obtain technical support by calling or emailing Imacination. See page 2 for contact information.

Introduction

ASSUMPTIONS

In writing this manual we have made the assumption that you are very comfortable with using the Internet, such as conducting searches and the common terminology used in relation to the Internet.

Additionally we have made the assumption that you already have a Web site or are planning the development of a Web site and plan on including electronic commerce. If you have a Web site and are familiar with HTML. Then this book is for you. It will build on your knowledge of HTML with an introduction to Dynamic HTML and it's use in online store fronts. If you do not have familiarity with HTML we assume that you have contacted a web designer who will help guide you though any unfamiliar territory. A list of trusted and competent Web designers familiar with Ch-Ching! is available at our web site at http://www.imacination.com.

Final assumption. We assume that you want to be successful, if this is not the case, read no further.

This manual has been written to be read from beginning to end. We will note certain paragraphs that are advanced topics that can be returned to at a later date.

BACKGROUND

Unavoidably today every business is expected to have a Web site. It has become an integral part of marketing plans and references to company Web sites have saturated every other avenue of advertising. Web site addresses or URLs, appear on TV ads, radio ads, receipts, business cards, and after hours voice mail.

The next logical step has become to make the Web a sales channel: to capture existing customers and extend sales to markets previously unreachable. Use this guide and Ch-Ching! to make your existing Web site into a full service, 24 hour a day sales channel.

Ch-Ching! is a powerful, feature-rich shopping cart application and development framework. You can use Ch-Ching! out of the box to host your online store and make sales on the Internet without typing a single line of code. Optionally, using Ch-Ching! as a framework for building a custom cart, you can make any customization to your online catalog that you like. Changes may be as simple as using a different background color, or as complex as you can imagine.

Either way, Ch-Ching! delivers the most robust feature set of any commercial shopping cart. In this manual we will explain how to set up Ch-Ching!, describe features, and give information on interfacing with third party tools, such as real-time credit card transactions. We will attempt to ensure that information about third-party tools is as accurate as possible at the time of writing. As other software companies change their products, this information may become outdated. Please contact us for updates at that time.

As we wrote earlier, Ch-Ching! can be used right out of the box. However, if you feel the need to make changes, you should have a moderate understanding of HTML, the Lasso development language, and JavaScript, or consult with a qualified Ch-Ching! developer. A list of developers, resellers, and premium hosts can be found on our web site.

Shopping carts generally maintain four related databases of information: a database of available products and specific information regarding those products; a customers database to track your customers; a database of ordered items, the heart of the shopping cart, that tracks products that are stored in customer's carts; and finally an orders database that ties everything together and creates an invoice.

If any of these databases fail, the entire cart comes to a halt and your store is closed. Management of a cart like this can also be difficult, especially when hosting multiple stores. Ch-Ching! binds all four databases into one application to prevent these problems and lower hosting costs for both the merchant and the host.

As an additional benefit of binding Ch-Ching! into one application, you can host as many as fifty additionally licensed stores on one computer!

Ch-Ching! is comprised of two components: a database, and HTML templates.

The database stores such information as products, customers, shopping carts, orders, and store preferences. The HTML templates are the pages your customers see when they browse your site over the Internet. You are probably very familiar with HTML tags, ie.

```
<BODY BACKGROUND="chching.gif">
```

The preceding is an HTML tag instructing the Web browser to display the image "chching.gif" as the background of the HTML page. The HTML files can be edited freely to integrate with the look-and-feel of your existing Web site, or can be used 'as-is.'

Within the HTML files exists special HTML tags called Dynamic HTML. Dynamic HTML are tags that represent data that changes each time the page is displayed. When the pages are requested from the Web browser, the Web server looks at the Dynamic HTML and replaces the tags with the appropriate data. Many Web servers support a small set of dynamic tags that can add functionality to otherwise static pages, ie.

```
The time is: <!--#echo var="SERVER_TIME" -->
```

would be replaced with the current time the page was requested by the Web browser. Each time the page was reloaded the time would change. Thus, the page would appear to be dynamic.

Creating an Internet store front requires a good amount of Dynamic HTML as well. When a customer searches for a group of products based on any criteria, the returned list of matching products is dynamically generated from the database. Creating a static HTML page to represent every possible combination of products your store sold would be nearly impossible. Static based stores pose a tremendous security risk, not to mention

being very labor intensive to both create and to update. Instead, a Dynamic HTML (DHTML) site, has one template page for search results, and simply replaces the DHTML tags with the appropriate product information.

In order for the Web server to know that the page is meant to be parsed and served dynamically, the page must have a suffix other than .htm, or .html. Ch-Ching! uses .lasso as the suffix for the template pages.

Be aware that while Ch-Ching! attempts to provide as much compatibility as possible WYSIWYG HTML editors, some editors will disrupt the DHTML code. This can render certain operations non-functioning. If you suspect this is the case, the first thing to try is to return to an unchanged version of the page you are attempting to edit. For best results with a WYSIWYG editor, first create the store user interface, then using a text editor copy and paste the DHTML from the Ch-Ching! templates into your new pages. Rest assured that while this process may have an initially uncomfortable learning curve, it will become easier and your web development skills will become increasingly stronger.

Many Ch-Ching! users are also first time DHTML users, or may not have much experience with the use of Common Gateway Interfaces (CGI). As such we are going to introduce you to the use of CGIs and how Ch-Ching! interoperates with the web.

As we mentioned earlier, one component of Ch-Ching! is the database. Once your product list is built, it is stored within the Ch-Ching! database. When a customer enters your store and begins to browse around, product lists are built and displayed for the customer based on criteria they are looking for. Your customers do not have direct access, however, from their Web browser to your store database. Instead, a CGI must take the information they are looking for, perform the search for them, then populate the DHTML templates with the appropriate product information.

Ch-Ching! uses Lasso from Blue World Communications as the CGI that connects the database to the templates. The Lasso CGI lives inside the Web server as a plug-in. It is loaded into the memory of the Web server at startup and processes any page with the .lasso suffix. Due to Lasso's capability to work with Windows based Web servers and Macintosh based Web servers (separate editions of Lasso), Ch-Ching! owners can transfer their store database and templates from either platform to the other. Additionally, Lasso affords Ch-Ching! several interoperability options between platforms, ie. You may operate a Macintosh Web server while your store database resides on a Windows based computer, or vise versa.

CGIs facilitate the ability to add records, update records, delete records, run scripts, and search records, within your database. All of these functions are essential to a web store. The right to privelege records allows the customer to create a new record of their shipping information, create a new order and add new items to their shopping cart. The privelege to update records allows customers to change the quantities of items in their shopping cart, and change shipping information. The privelege to delete records is imperative to allow customers to remove unwanted items in their shopping cart. Finally, the privelege to search for records allows your customers to search for products at your store.

Allowing all users to have this degree of access to your database however, is very insecure. Lasso therefore maintains a very robust security database, that allows you to restrict and grant any of these priveleges individually. Obviously, it would be impossible to project what customer is going to shop at your store and to create a username and password with the appropriate priveleges based on your trust of that customer. Instead Ch-Ching! approaches security in a different manner. Ch-Ching! gives search permissions to all users, but restricts items that can be retrieved. For instance, information such as your administrator username and password are not retrievable. The residual priveleges we spoke of (add, delete, update, and run scripts) are given only to the Remote Administrator. Even if you do not intend to remotely administer your store you need to create a remote administrator username and password. The username and password will be used internally within Ch-Ching!

The second part to the Ch-Ching! security approach is proxieing. As we mentioned earlier, all customers need the ability to add, update, and delete records, however we have only given them the permission to search for records. Thereby, protecting our store from a user creating a new product, or changing product pricing, or tampering with orders. If you look closely at the DHTML templates, you may notice that when a customer wants to add an item to his shopping cart, he actually does a search and not an add with the product information. Ch-Ching! looks at the search request internally, and determines the authenticity of the request. Next, Ch-Ching! adds the item for the user by proxy using only the appropriate product information, preventing the user from having direct access to adding records to your database, and preventing tampering such as changing the product pricing. This same method of proxieing is used to update, and delete records as well.

Lasso security allows the Web master the ability to limit access to databases Lasso interacts with. This is crucial to protect your data. When using Lasso for the first time, after installation, Lasso will ask you to create a new Administrator password. The Lasso security username will always remain "administrator", while the password can be set to anything. Once you have set the Lasso administrator password, store it somewhere safe, but handy. It will be used again when configuring Ch-Chinq!.

Lasso security allows your databases to have different privileges for different users. The Remote Username and Password set in your Ch-Ching! database will be given the privilege to add, update, delete, and run scripts in your database. All other users will only be given the privilege to search. Ch-Ching! will automatically set these permissions in the Lasso Security database for you when you first configure Ch-Ching!. Please pay special attention to the Configuring Security chapter in this manual. If you do not configure security correctly, Lasso will not allow you to use your store properly.

SUCCESS HAPPENS

Plan for your success by thoughtfully planning what you will need to do, and how your investments will grow with you. Successful Fortune 1000 companies deploy Electronic Commerce (eCommerce) solutions costing in excess of \$250,000. Planning for success does not mean that if you plan on becoming a Fortune 1000

company that you need to invest today a quarter of a million dollars in your eCommerce venture. It does mean that you need to invest in a scalable solution that can grow to fit your needs as you grow.

Ch-Ching! is the ultimate scalable eCommerce solution. Today you can buy as little as you need, while tomorrow you can have Ch-Ching! integrated into you existing legacy accounting and inventory management system. Details about Imacination's custom integration partners are also available at our Web site.

How much eCommerce should I buy?

Having decided to buy Ch-Ching! for it's scalability, you need to now decide how much to buy. This is factored on your resources, such as:

- Do you have a fast Internet connection?
- Do you already host your own Web site, or is it hosted elsewhere?
- Do you have technical resources to manage a Web server, maintain backups, and monitor traffic and connectivity?
- What is your budget?

If you do not have the resources to host your store at your facility, consider having your own store hosted elsewhere, can cost as little as \$50/month and is an excellent starting point, but won't provide the same content and data control as collocating your own server at an Internet Service Provider. Collocating your store involves purchasing your own hardware and software such as a Web server, and Lasso and having your computer hosted at an Internet provider. If you plan on hosting multiple stores but don't need any custom integration, collocating could be an excellent option for you. If you have the resources and the budget, hosting your own store is the way to go. You will have complete control over your data and content, and have the option to have a customized version of Ch-Chinq! integrate into your existing business tools.

Which ever you choose, you can scale up as success happens. Ch-Ching! is the ONLY solution that provides such flexibility.

If you choose to have your store hosted you should begin immediately by contacting your host to find out what requirements they may have. Determining where to have your store hosted should depend on the following:

Hours of accessibility to support. A support staff that is available 24 hours a day but cannot help you with your store is less than desirable. If you cannot choose a provider in your time zone a host who opens and closes at different hours than you might be difficult.

Redundant Internet connection from different sources is difficult to find, but will help provide the least unexpected downtime for your store.

Backup. Daily backup of your store will help prevent travesty should disaster strike.

Statistical Logs. Utilities can create invaluable reports of traffic to your Web site. This information can help you determine the effectiveness of your Web store advertising campaign.

JUST PLAN IT

Begin by planning your online store.

Will you want to accept online credit cards? If yes, apply now for a merchant account and transaction gateway. What are you current marketing tools? Add references in each of them to your web site and online store. How do you calculate shipping and handling? Make a small work sheet/flow chart, ie.

We charge 5% of the order total up to \$300, then charge a flat rate of \$15. International orders are a flat rate of \$50.

or,

We charge a rate of \$7.50 over the UPS shipping rate.

By creating you shipping work sheet, Imacination can help you build the appropriate shipping script necessary for your online store.

Total your budget for your online store, and spend the better part of your budget on site design. A well designed site will make any business appear as a Fortune 1000 company.

You may already be familiar with the term Secure Sockets Layer (SSL), most assuredly you have ventured into another online store that used SSL.

A little more explanation on SSL is in-order though. SSL is a term used to define a method of encryption between a server and a browser. Data such as credit card numbers, is encrypted in transit when sent to the server. To do this, both the Web server and the store need to support SSL (as Ch-Ching! does). Additionally, you will need an SSL certificate, assigned yearly for a fee by a Certificate Authority. Such authorities are Thawte, http://www.thawte.com/, or Verisign, http://www.verisign.com/.

Regardless of whether your store uses SSL or not, Ch-Ching! will send your customer's credit card information to the online transaction gateway via SSL, if you are using real-time credit card processing. However, if you are not using SSL, your customers may feel hesitant or insecure about submitting their credit card online.

For this reason alone, a subscription to an SSL certificate is considered the cost of doing business online and a wise investment.

After implementing your online store, place search boxes elsewhere on your Web site that allow customers to quickly search your store. If you can, find other sites that will allow you to place a search box on their site. This kind of easy access to your store will help customers make good use of their credit.

Communicate up front your policies, such as a return policy or payment options. If you only accept Visa and MasterCard for payment, communicate that at the beginning so your shopper can be prepared to checkout.

Make error messages insightful so that customers can easily correct their mistakes.

Plan your pages to load in eight seconds or less (hopefully much less) via a 28.8Kbps modem. Design for the lowest common denominator. Designing a site that requires special "plug-ins" in the customer's browser, may attract fanatics that love the use of "plug-ins," but don't necessarily buy anything while warding off buyers with older browsers. Find a balance between elegance and simplicity that results in speed.

YOUR WEB SITE, YOUR NEW OFFICE

The three most important words for success for your new venture are no longer "location, location, location." Location is no longer important. It is just as easy to reach a famous named book store on the Internet as your smaller name store located halfway across the world. The most important factor in creating a sale on the Internet is establishing credibility for your store.

Credibility is established by attractiveness of design. Just as few people enjoy walking into a business in disarray, few people enjoy visiting a Web site under construction.

People tend to spend more time visiting professionally designed Web sites. With that in mind, the two greatest factors in influencing Web buyers to purchase products from your store, are credibility and cost.

THE FRICTION FACTOR

Conceptually, the Web store can offer a friction free sales model. Friction refers to the interferences the consumer faces when attempting to purchase a product. In difference to the traditional store front with standard business hours, there is very little to stand in the way of a customer coming to your Web site and purchasing from you at any time. To assess what is preventing customers from purchasing from you, graph your situation as you would in your retail store.

Example (My Retail Store):

Accessibility to store: Difficult to reach, need to call for directions, no walk in traffic.

Products displayed to inspire purchases: Some, others customers need to inquire about.

Checkout: Medium lines

Knowledgeable sales staff: When I am there "Yes," other times "No."

Total friction of sales: **High**

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Example Two (My Online Store):

Accessibility to store: Easy to remember URL, short loading time, member of banner program that drives

traffic my way.

Products on display: All

Checkout: Easy access to pay, fast server.

Knowledge base: Easily digestible product literature on all products.

Total friction of sales: Very low

Simply illustrated, assess every portion of your Web site and plan to make it easy for the customer to take out their credit card and buy at your store, with the least amount of friction possible.

GLOSSARY

Bandwidth -The width of your communications channel, commonly measured by the maximum data transfer rate. Modems generally have a bandwidth of an analog 33.6Kbps. Internet Presence Providers tend to purchase bandwidth in aggregate numbers of 1.5Mbps.

Merchant Account (ID) - A special, business banking account that allows a merchant to accept payment by credit card. Some merchant accounts are specifically for retail sales, others for Internet sales.

Transaction Gateway - A processing network that connects between your Web store or credit card terminal and your merchant account. To process credit cards, an account is needed with a transaction gateway bureau. Generally, gateway accounts and merchant accounts are sold together.

Record - set of data that contains information that you or your customer filled out. When we create a new product later in this manual, all of the information we record about that product will be called a *record*.

Fields - Text entry boxes in which we enter information.

Requirements _____

Ch-Ching! is compatible with a variety of Web servers on both Windows and the Mac OS platforms.

MACINTOSH

- Power Macintosh or compatible running version 7.6.1 or later of the Operating System.
- 24 megs of RAM.
- Lasso 3.x CGI/Plug-in or Server, FileMaker Pro Edition.
- Mac OS Web server (not required if using Lasso Server Edition).
- FileMaker Pro 4.x (not required, only necessary for custom database development and integration as a special runtime version of FileMaker Pro is included.).
- Apple's Mac OS Runtime for Java (MRJ) version 2.0 or later is required for features such as UPSonline integration.

WINDOWS

- An Intel-compatible Pentium processor running at 100Mhz or faster.
- A Java Virtual Machine compatible with Sun's JDK 1.1 is required for features such as UPSonline integration.
- FileMaker Pro 4.0 or later, running Web Companion v1 or v3 (see note below).
- Windows NT Server, version 4
- Lasso 3.x ISAPI Plug-in, FileMaker Pro Edition

ISAPI

Microsoft Internet Information Server, version 2 or later.

NSAPI

- Netscape FastTrack Server for Windows NT
- Netscape Enterprise Server for Windows NT

WINDOWS 95/98

Lasso 3.x PWS Plug-in, FileMaker Pro Edition

Microsoft Personal Web Server.

TECHNICAL NOTE: FileMaker 4.1 has updated the Web Companion, an essential piece for using Ch-Ching! in the Windows environment, to version 2. Version 2 of the Web Companion contains a bug that does not allow it to return more than 255 characters of data from any field. FileMaker, Inc. has since released an updated version of the Web Companion, v3. This version, available for download at the FileMaker Web site, http://www.filemaker.com/, fixes this and other bugs in previous versions of the Web Companion. This update is a replacement for all 4.x editions of FileMaker and is a recommended upgrade.

USAGE RIGHTS

Your license permits you to operate a single store. You may operate as many as 50 stores per CPU by purchasing additional licenses. Volume pricing is available directly from Imacination Software.

Compatibility

Ch-Ching! supports customers using Netscape Navigator 2.0, Internet Explorer 3.0, and AOL Browser 3.0 or higher on any computer capable of running these browsers.

Ch-Ching! uses *cookies* to track customers as they shop. *Cookies* are strings of data that the customer (or client) stores in their browser. The server passes the data to the browser which in turn stores it for a specified period of time, to send back to the server upon request. The cookie can only be returned to the originating server, which secures that data, and protects the privacy of your customer. The whole process is conducted transparent to the user, the user does not see the process and does not affect performance.

Ch-Ching! stores cookies until the sale has been made and payment has been processed, or for a set period of time. For numerous reasons a customer's shopping experience in your store could be interrupted. As long as that customer returns to your store within 24 hours, all of their shopping cart will still be available.

However, this does require that your customers have cookies enabled in their browser. While this is the default of all browsers, and the majority of online catalogs require cookies, you may want to post an FAQ reminding customers that they must have cookies enabled in order to shop in your store.

Almost There...

TEXT STYLES

URLs (domain names, Internet addresses, or Web site addresses) and HTML will be stylized in a special font for easy recognition:

<http://www.imacination.com/>

GETTING AROUND...

Throughout this manual we will use the words *Utilities* and *Scripts* interchangeably. If we describe using the *Utilities* menu to run a Utility and you do not have a *Utilities* menu, then look for the menu named *Scripts*.

You navigate in the Ch-Ching! application with **Nav** Buttons and **Action** buttons. The Action Buttons allow you to create a new record, find a record, or delete a record. The Nav buttons let you move from record to record.

Most screens will show us one record at a time. To view the next record, use the Nav Button labeled Forward. To view the previous record, use the Back button. To view either the first record or the last, use the Go First or Go Last button respectively.

Some screens will allow you to create a new record, search for records, or delete records. Most commonly you will do this in the **Products** screen. On the right hand side of the screen you will see the Action Buttons, **New**, **Find**, and **Delete**. Use these buttons to create new records, find records or delete records. A word of caution: use the Delete button carefully. You CANNOT recover what has been deleted. See the *Advanced Features* chapter, for details on using the *Backup* utility to help safeguard your store from data loss.

Due to the symmetry between access to the Ch-Ching! database and the Remote Administration portion of Ch-Ching! all of the information in the manual pertain to either the application or the Web based remote administration.

Differences between the Ch-Ching! database and Remote Administration: You will notice that the Ch-Ching! database does not have a "Save" button. This is due to the database engine constantly saving data at idle time. Recent information is stored in the database RAM cache for best performance. Thus, any changes made do not need to be "Saved," the changes will be effective immediately however after changing the value of a field, you should click your mouse outside of any field, which will allow the record to close and any necessary calculations to perform.

Using the Remote Administration portion of Ch-Ching! via a Web browser, changes are not instituted, or "Saved," until you press the Update button.

To perform a Find in the Ch-Ching! database, you would begin by pressing the Find button, followed by entering the criteria to find. As an example, to find all open orders, you would go to the Orders layout in Ch-Ching!, press the Find button, select "Open" from the Status field and press the Enter key on your keyboard.

To perform the same search within the Remote Administration, you would go to the Orders layout, press the Find button, select "Open" from the Status field and again press the Find button.

While your store is in use, the Ch-Ching! database application is operating as a server. Via your Web server, the Lasso Web Data Engine is querying and updating data within your database. Inherently, your database must be open at all times.

The Web server queries your database by sending a request to the database via a communications channel, with data to find, the field it is expected in and the layout that field exists on. While your database is being queried, better performance is gained by not refreshing the layout to reflect the search. Thus a search for a product followed by a search for a customer record in the Customers layout may cause the database to appear to remain on the Products layout. The record will refresh and no data may appear in any of the fields on the Products layout. Data does however exist within that record that pertains to another layout. Deleting a record that appears to be blank while your database is in use may cause a loss of other data.

If you choose to manage your database via the Ch-Ching! application, you should instead open the database from another computer as a network client. To do this, you will need at least two full editions of FileMaker Pro. Using one edition of FileMaker Pro to open the Ch-Ching! database select Sharing and Remote Mode from the Utilities/Scripts menu. Select Multi-User and close the dialog box with the OK button.

Using FileMaker Pro on another computer on your network, you can access the Ch-Ching! database by selecting Hosts from the File Open menu. More information on accessing networked databases is included in the FileMaker Pro user manual.

Security concerns arise at anytime you make a database accessible to network clients. You should be cautious using this option and consult with a network administrator. If the default network protocol set in the FileMaker preferences is TCP/IP, your database will be accessible by anyone on the Internet with FileMaker Pro when you enable Multi-User mode (off by default).

The advantage of operating your database in Multi-User mode would be overcoming constant changes in the current record data as your main Ch-Ching! database serves queries to the Web server. Thus, if you choose to manage your database via the Ch-Ching! application instead of the Web based remote administration, you should access your Ch-Ching! database via another computer as a network client, to avoid constant changes in record data while you are making your changes. The Web based remote administration also acts as a client to the database but without the security concerns of a network client version of FileMaker Pro. For all administrative functions either the Web based administration or a network client should be used in preference to attempting to administer via the Ch-Ching! application operating as the server.

Chapter 1: Installing Ch-Ching!

Please note that while we have attempted to make the installation of Ch-Ching! as easy as possible, it is difficult to install any Web store for the first time if you have no prior experience with Web servers or CGIs. For best results, first install your chosen Web server and become familiar and comfortable with it's operation. Then install the Lasso CGI and acquire basic familiarity with Lasso by using the examples provided. This will tremendously further your smooth installation of your Ch-Ching! store.

We will install Ch-Ching! in three easy steps:

- Copy the appropriate folders to your Hard Drive
- Configure your store
- Configure security

Before you begin installation, you will need to collect the following information:

- The location (on your hard drive) of your current web site (HTML) documents, if you have an existing
 web site.
- The Internet domain name of the machine on which your server is running.
- The Internet domain name of your Secured Sockets Layer (SSL) server.
- The Internet domain name of your email server.
- What method of credit card processing you will use (refer to Chapter 2).
- Your Lasso Security Administrator Username and Password.

If you do not have domain names, you may use IP addresses. Additionally, you do not need to use an SSL server if you choose. For testing purposes it is common not to use SSL, you may enter ANY address in the SSL URL field within Ch-Ching! as long as the address points to the appropriate payment folder, as described below.

Copy the *ch-ching.fp3* application to your hard drive and open it by double-clicking on the application icon. To protect your database from accidentally being downloaded by your Web server, you should NOT place it in a folder accessible by your Web server. It should never be located in any of your Web site or Ch-Ching! folders, the location of the application is irrelevant and can be anywhere on your hard drive.

Copy the *store* folder into your Web site folder on your hard drive, and create a link from your Web site to the *catalog.lasso* page or the *default.htm* page.

When visitors at your site click on this link they should arrive at either of these pages. Your Store Site URL will be http://www.yourdomain.com/store/, write this down as it will be used later in configuring Ch-Ching!.

Copy the *admin* folder into your Web site folder on your hard drive. To access your store's Web browser based remote administration, the URL would be http://www.yourdomain.com/admin/.

Note: If you are hosting more than one Ch-Ching! store you will need only one copy of the *admin* folder. You can optionally have your DNS administrator create a subdomain for your remote administration, such as *admin.yourdomain.com*. Having created a subdomain, you can create a virtual host entry in your Web server to point to your *admin* folder. Consult your Web server user manual for additional help with Virtual Domains.

Copy the *ats, authnet, exact,* and *post* folder into your Web site folder on your hard drive. Later we will select the order processing method that will take advantage of these folders.

While Ch-Ching! ships with the filename *ch-ching.fp3*, you may find yourself hosting multiple Ch-Ching! stores on the same server. If this occurs, you will need to change the name of any additional store(s).

You may freely change the name of Ch-Ching! without needing to make any changes to the code. Just be sure not to use spaces in the filename, and to update the Lasso Security database to reflect the new name.

See instructions on using the *Update Database Name* utility in the Advanced Features chapter.

The following examples will use the name *ch-ching.fp3* generically to describe to describe the Ch-Ching! application. If you have changed the name, defer to the changes you have made.

Chapter 2: Getting Started

You may want to familiarize yourself with the interface. Open Ch-Ching! by double-clicking on the *ch-ching.fp3* application icon.

If the application does not open, then you either do not have FileMaker Pro or the free runtime edition installed on your hard drive. Please visit our Web site to download the runtime edition before proceeding.

If you are opening Ch-Ching! for the first time, you will find yourself at the End User License. Please read this license and decide if you are willing to Agree or not.

After Agreeing, you will be taken to the "About..." menu. This is where Ch-Ching! will open every time you launch Ch-Ching!



Note the Menu Tabs in green at the top of the screen. From any window you will be able to switch to another by simply clicking your mouse on the tab of your choice.

At this point Ch-Ching! is not registered, and will continue to work for 30 days in this mode. To register Ch-Ching!, please see the registration section of this manual.

STORE PREFERENCES

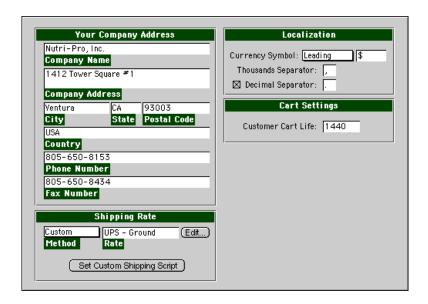
The store preferences are set up in three of the menu tabs. These are: *Address Setup, Credit Setup*, and *Internet Setup*.

ADDRESS SETUP

Start with *Address Setup* by clicking on its green menu tab. All of the information in the heading *Your Company Address* will display on your receipt page and in the email receipt sent to the customer.

The *Company Name* field will display on every page, in the title and periodically in the text.

Please Note: Once you have registered Ch-Ching! you will not be able to change the company name. Be sure to decide on the final name that you would like to appear on the store pages before you register Ch-Ching! If you need to change the name later, you must call Imacination Software.



SHIPPING RATE

There are 4 methods of charging shipping on orders placed: *Consolidated, Minimum, Calculated,* and *Custom.* Select your preferred method based upon the following:

Consolidated is the means by which most mail order businesses charge shipping. This is a flat shipping rate for all orders, regardless of content.

Calculated will tally up the total shipping rates entered for each product to generate a shipping cost. If you select this method, Ch-Ching! will ignore the *Rate* field. The individual product shipping rates are entered later in the Products window.

Minimum is an alternative approach to calculating shipping costs. Minimum will calculate the greater of either the rate entered in the *Rate* field or the sum of the individual shipping costs of each product. This is the best method to use when you have several products that require additional handling or expense to ship.

Custom provides you with a Lasso Programming Interface to create a custom shipping scheme based on the use of many variables such as where the package is going, weight, cost, etc. Using the custom method, you can build a list of shipping options for your customer to choose. To do this, choose *Custom* from the *Method* menu. Next, choose *Edit...* from the *Rate* menu and create a list of shipping options:



Press the *Set Custom Shipping Script* button and you will be able to create a shipping script that will act on the customer's order. More detail of all the available commands and an example script that charges the customer a varying rate dependant on their order total and adds a premium for express shipping, is available in the help window of the custom shipping script screen. You can access the help menu of the Shipping Script by clicking on the ? in the bottom left of the window. Additionally, your purchase of Ch-Ching! entitles you to one custom developed shipping script from Imacination Software. By using the scripting window, you can integrate real-time United Parcel Service pricing directly from UPSonline. Visit the support section of the Imacination Web site for this and other example scripts.

If you have chosen either Consolidated or Minimum, enter a rate in the Rate field.

Example 1: If you charge a flat rate of \$10.00 per package for up to 5 products and \$2.00 for each additional product, set *Shipping Rate Method* to *Minimum*. Set the *Rate* to \$10.00. Then, for each product, enter \$2.00 in the product's *Fixed Shipping Cost* field. If a customer buys 3 products, they will be charged \$10 for shipping. If a customer buys six products, they will be charged \$12 for shipping.

Example 2: If you charge a flat rate for the majority of your items, but have a few items that cost more to ship, choose *Minimum* in the *Shipping Method* field and enter the flat rate shipping cost in the *Rate* Field. Then, for the products that have a greater shipping cost, enter that greater cost into the *Fixed Shipping Rate* field. You can leave all other *Fixed Shipping Costs* blank. If a customer buys several products that do not require extra handling, they will be charged the minimum flat rate, if they purchase products with extra handling they will be charged the higher shipping cost.

Localization

Some countries may use different notation and positioning for currency. In the US, the dollar sign is used as

the currency symbol and it leads the amount, with a comma separating each thousands place, and a decimal for cents, ie:

\$1,586.55

Other common formats may include currency trailing, and a period separating thousands places, ie:

1.586¥

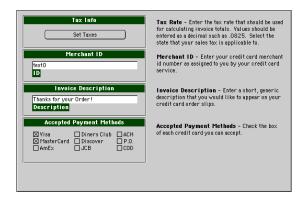
To localize currency notation you can override the defaults by simply selecting the appropriate options. To turn off the display of any decimal places, uncheck the box to the left of the Decimal Separator.

Additionally, the currency you use can be symbolic (\$) or text (EURO). Ch-Ching! will use this as the default currency symbol for your transactions. Note: some fields may not be big enough to display a long currency name, such as EURO and the full currency amount. This may cause the field in the database to only show part of the currency or none at all. This is NOT a problem. Ch-Ching! will still calculate correctly and your customers will see the product and order values correctly.

Customer Cart Life is a value in minutes that you want your customers shopping carts to remain active. The default, 1440, allows customers to leave your store and return within 24 hours (1440 / 60) without losing the contents of their shopping cart.

CREDIT SETUP

Select *Credit Setup* by clicking on its menu tab. *Credit Setup* includes tax rate information and automated credit card processing information.



TAX INFO

Before configuring Ch-Ching! for taxation, you should consult with your accountant to determine what products need to be taxed, which States, Provinces, or Countries need to be taxed, and what rates, and finally whether or not you need to tax shipping and handling charges.

If you have this information ready, begin by clicking *Set Taxes* in the Credit Setup window. Initially the screen will be blank, click *Additional Tax Rate*. Select a State from the pop-up menu, or scroll down to 'Edit...' to change the list of States. Set the Tax Rate in decimal format, ie. to tax 7.25%, enter .0725. Lastly, select whether or not to tax shipping and handling for that state. You can tax an unlimited number of States by pressing Additional Tax Rate. Sales tax will only be applied to products that you designate as taxable. Later, when we create our store products, you will learn how to designate them as taxable or not taxable.

Some countries mandate that multiple taxes be levied on sales. Both a national and provincial, or state, tax are not uncommon including a tax that varies by country.

Consult with your accountant and determine the appropriate taxes that apply to what states, countries, and any global taxes.

If a global tax that will be charged across all purchases regardless of the customer's location, enter "Global" as the Locality. Next enter the tax rate in decimal format. Select whether or not this tax rate applies to all products sold or just to products that are marked "Taxable" in the products database. This is commonly used when a particular tax, such as a global tax, applies to goods and services, while a provincial or state tax applies only to goods but not to services.

Within the locality field, a country abbreviation or name can be included and Ch-Ching! will apply a national tax based on a match between the country of the customer's shipping address and the country name entered.

Delete	Locality	Tax Rate	Tax Shipping?	Applicable Products	
-	Global	7.25%	No Yes ○ No		
-	Canada	8%	OYes ⊚ No	○AII ● Taxable	
-	BC	6%	OYes ⊚ No	○ All	

In the example above, a global tax of 7.25% will be charged on all orders including shipping and handling, regardless of the customers location and the product's taxation status.

A tax of 8% will be applied to all orders within Canada, not applying tax to shipping and handling and only applied to products with the taxable status.

Finally, a tax of 6% will be applied to all orders within British Columbia, not applying tax to shipping and handling and only applied to products with the taxable status.

Ch-Ching! will calculate these taxes separately and display the sum of the taxes on the Order layout. If you are required to display them separately, you will need to add the field ordStateTax, ordCountryTax, and ordGlobalTax to yourWeb pages. More discussion on this will appear later in the manual.

If you created a taxable state or province using a common initial, then customers who typed the full name will not be taxed. You will want to create an AdditionalTax Rate and enter the same tax rates for the full state or province name.

To return to the Credit Setup window click on the small, leftward arrow at the bottom of the screen, marked "Credit Setup."

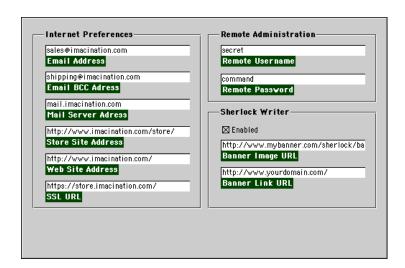
Merchant ID is the code your credit card transaction bureau has assigned to you in order to process your transactions. For more information on obtaining a Credit Card Transaction Bureau account, or Merchant Account to accept credit cards, refer to the Imacination Web site.

Invoice Description is required on credit card order slips by some merchant card services. Enter a generic description that would apply to all sales, or a very short sentence, such as "Thank you for your order." This will also be the Subject field of the emailed invoice sent to your customer upon completion of a sale.

Accepted Credit Cards — If you are accepting credit cards for your purchases, you are likely to have a list of accepted card types. Some merchants can accept Visa and MasterCard only, while others can accept American Express, Diners Club or Discover as well. Mark the credit cards you are set up to accept through your credit card company. The options P.O. (Purchase Order) and COD (Cash On Delivery) are only usable if you are NOT processing credit cards automatically. If you choose to make these options available, you should use Ch-Ching!'s post-processing method of collecting payment information for off-line processing.

INTERNET SETUP

Select *Internet Setup* by clicking on its menu tab. *Internet Setup* includes *Internet Preferences*, *Remote Administration*, and *Sherlock Writer*.



INTERNET PREFERENCES

Enter the following technical information. If you are not hosting your own store, you can skip all of the following except *Email Address, Email BCC Address,* and *Web Site Address.* If you have questions about any of these fields, consult with your Ch-Ching! reseller or host.

Email Address – Enter the email address that you would like to appear on invoices. This is just a general contact email address through which you would like your customers to contact you, and will appear as the return address from which your email receipts will arrive.

Email BCC Address – Enter the address to which you would like Ch-Ching! to send a Blind Carbon Copy (BCC) of all receipts. When a customer makes a purchase, an email is sent to both the customer and the address you enter here. This is your notification that a sale has been made.

Mail Server Address — This is the address of the mail server that handles your email. You can enter the domain name, such as mail.server.com, or the dotted decimal format, such as 24.24.24.24

Store Site Address — This is the direct web site address of your store. If you entered this address into an Internet browser, you should arrive at your store and not at another page. This address should be in the

following format:

http://www.yourstore.com/store/

The address must begin with 'http://' and end with '/'.

Web Site Address — This is the address you would like to display on the receipt and invoice page. It is much like the *Email Address* field in that it is used strictly as a contact page for your customers. It can be entered in any format you like, but it is recommended that it be entered in the same format as the *Store Site Address* i.e., beginning with 'http://' and ending with '/'.

SSL URL – The Secure Sockets Layer (SSL) URL is the address at which your server will be performing the credit card transactions. If you are not hosting your own store you can skip this step. Otherwise, you should enter this address in the exact same format as the Store Site Address i.e., beginning with 'http://' and ending with '/'. To determine what the SSL URL should be, read the following paragraphs on payment transactions.

CREDIT CARDS

Ch-Ching! allows you to provide secure, seamless, real-time credit card transactions for processing your customer's payments. Use of Ch-Ching!'s credit card processing engine does NOT require additional hardware, software or phone lines. However as with all credit card transaction processing, you will need two components: a merchant account which is an enhanced bank account that allows you to accept credit card payments, and a transaction bureau that handles the transfer of funds from your customer's credit card to your merchant account.

Many transaction bureaus at this time do not support Internet businesses. Imacination has located two leading transaction bureaus that will accept 96% of all businesses including home-based startups. These bureaus will optionally include a merchant account with an affiliate bank if you need one. All credit card transaction bureaus charge a setup fee, and a per transaction fee. These fees are in addition to the per transaction percentage fee (discount rate) imposed by your merchant bank. These rates may vary dependant on the merchant business and credit rating.

COMMON QUESTIONS

Can I convert my Merchant Account into an Internet enabled account to accept real-time credit card processing?

Check with your bank to see if this option is available. This may change your rate structure. Additionally, your account must be on a network that is accessible by a transaction gateway compatible with Ch-Ching!.

What fees are generally involved with getting a merchant account and processing credit cards over the Internet?

You should expect to pay a setup fee of around \$300, a flat per transaction fee of \$.30, and a percentage fee,

often called a discount rate, of 2.5%.

Rates will vary depending on the credit history of the company applying.

Ch-Ching! ships with out-of-the-box support for both AuthorizeNet and ATSBank credit card transactions. For specific details about signing up for these accounts, visit our website at http://www.imacination.com/.

Implementing real-time transactions with either service is very easy.

During installation, you copied the *ats*, *authnet*, or *exact* folders into your Web site folder. As an example, If you choose to use AuthorizeNet processing you would enter the path to the authnet folder as Ch-Ching!'s SSL URL, ie.

```
https://www.yourdomain.com/authnet/
```

You should use a Secured Sockets Layer server to serve either of these folders to protect your customers creditcard information with encryption.

After your customer enters her shipping information, Ch-Ching! will forward them to the URL listed in the SSL URL field to collect their credit card information. This does not need to be a SSL Server, but it is preferable for the security and confidence of your customers.

No further setup is required. Ch-Ching! knows what data to provide to either of these transaction bureaus, without any changes. Just don't forget to input your Merchant ID into your preferences in Ch-Ching! as described in the *Getting Started* chapter.

Note: Customer's using AuthorizeNet need to configure a particular setting in their AuthorizeNet account at the AuthorizeNet Web site. Instructions should be attained either through the Imacination Web site, or by contacting Imacination technical support.

There are only a few more important notes about credit card transactions in this manual: what fields are used, and how they are used. In the Ch-Ching! preferences you will note that you enter a URL and an Email BCC Address. These appear on the receipt, but also are used internally by Ch-Ching! to process your credit card transactions. Ch-Ching! uses several of your entered preferences to pass to the merchant credit card bureau.

The Email BCC Address you entered in your Ch-Ching! preferences is also used to send you a BCC (Blind Carbon Copy) of the order receipt that is sent out to the customer when their credit card is approved.

If you get this email, the order has been paid for and closed out. You will not get an email until payment has been processed successfully.

We also check to ensure that only the credit card company can update your store database as being paid. This prevents hackers from creating a local page on their computer and posting an update to your server to make it appear as though their purchase has been paid. However, Imacination Software cannot be liable for losses

due to malicious attacks by hackers. Please read the End User License appearing at the end of this manual.

POST PROCESS TRANSACTIONS

Post Process refers to the act of taking the customer's credit card information, but not having Ch-Ching! interact directly with a credit card bureau, instead simply storing the number for the merchant to process by hand later. This is used in situations where a merchant does not know when the product will ship and prefers to leave the payment unprocessed until the shipping date is determined, as well as situations where the merchant accepts COD or purchase order numbers as payment. Neither option can be processed by your merchant bank and thus must be hand processed.

Ch-Ching! will still use an algorithm to determine if the credit card number your customer enters is valid. This is most beneficial to prevent customers from accidentally forgetting a number, or mis-typing. Ch-Ching! will do this for any card type you can accept. This does NOT ensure that the credit card will not be declined for lack of funds, only whether or not the number is valid. If the number is invalid the customer will be alerted and prompted to correct his or her mistake.

Note that when post-processing credit cards you will receive an email confirmation when a valid credit card number is entered in an order. You will still need to manually process the credit card to transfer the funds to your account.

Enter the path to your *post* folder in your SSL URL field within the Ch-Ching! database. If you have copied this into your Web site folder the SSL URL should be:

https://www.yourdomain.com/post/

REMOTE ADMINISTRATION

Remote Username — This is the username you will use to administer your store remotely over the web. This field cannot be viewed or changed remotely. Enter a unique word and be sure to keep it secret.

Remote Password — This is the password you will use to administer your store remotely over the web. This field cannot be viewed or changed remotely. Enter a unique word and be sure to keep it secret.

Note: For enhance security, Ch-Ching! uses a method of proxieing requests from users to protect your store from being tampered unwontedly. Ch-Ching! will use the Remote Username and Password internally to operate your Web store, as a result, even if you do not intend to administer your store remotely, you MUST enter a username and password.

SHERLOCK WRITER

A detailed discussion of the Sherlock Writer appears in the chapter, Advanced Features. If you choose to publish a Sherlock for your store, Enable the Sherlock Writer and enter the two variables.

Banner Image URL - An HTTP address of the image that can be served as a banner, ie.

http://www.yourdomain.com/images/ourbanner.gif

Banner Link URL - An HTTP link of where your customer should go when they click on the banner. You can choose to have a banner that leads no where by leaving this field blank, ie.

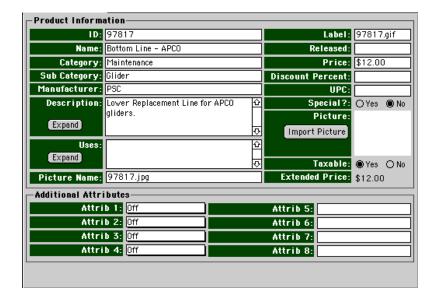
http://www.yourdomain.com/images/

CREATING PRODUCTS

There are two methods to create products. Manually entering the product information and importing product information from a spreadsheet or other database. First, we will discuss how to create products manually.

CREATING PRODUCTS MANUALLY

Select the *Products* screen by clicking on its menu tab.



Some fields on the *Products* screen are necessary and some are extraneous. An extraneous field is a field that is not used by Ch-Ching! for anything but for displaying on a product information page. For instance, when a user is searching for a group of products a list is displayed of all the products that match the search. By clicking on a product name, a customer will see a page with many of the details about the product. This is called a product information page, and all extraneous and necessary fields will appear on the information page.

We will mark all extraneous fields with 'E' and necessary fields with 'N.' You do not have to fill out the extraneous fields if you choose not to, but you MUST fill out the necessary fields.

PRODUCT INFORMATION

- **N** *ID* You MUST fill out a unique ID for each product. You can use numbers, words, or a combination of both.
- **N** *Name* Name your product as appropriate.
- **N** Category The list of categories you create for your products will be compiled and presented to the user on the Search page. Take note that any differences between similar category names will appear as separate categories in the Category list. For example, "Flower," and "Flowers" will appear as two separate categories.
- **N** Sub Category—Take note that any differences between similar category names will appear as separate categories in the SubCategory list. For example, "Flower," and "Flowers" will appear as two separate categories.
- **N** *Manufacturer* A list of manufacturers you create for your products will be compiled and presented to the user on the Search page. Take note that any differences between similar manufacturer names will appear as separate manufacturers in the Manufacturer list. For an example of differences between fields, see the *Category* definition above.
- **N** Description There is no limit to description length. Any information entered will appear on product information pages. Users will be able to search by words in the description. You may expand the view of your description by pressing the Expand button.
- **E** *Uses* This field is an extraneous information field. Any information entered here will appear on product information pages. You may expand the view of your uses by pressing the Expand button.
- **E** Picture Name You can import a picture for each product, or you can designate the file name of the picture in order to keep it out of your database. The latter method is called the path method. To use the path method, put your pictures in the products folder, which is located in the images folder found in your store folder, and just type the name of the image in the Picture Name field., i.e. screwdriver.gif. The actual path is not required. Contact your host for information about transferring images to your host. If you choose to import a picture, be sure to leave this field blank.
- **E** Special? Choose Yes or No to put your product on special. Putting your product on special will designate it with a small graphic signifying "Special" when it appears in the results of a customer's search. It will also be able to be found by clicking on the **Specials** button from any store menu. Putting your product on special does not affect the price displayed. To add a discount, enter a

- Discount Percent for each product on special (see Discount Percent information below).
- **E** Label This field is an extraneous information field. Any information entered here will appear on product information pages.
- **E** Released This field is an extraneous information field. Any information entered here will appear on product information pages.
- **N/E** *Price* Set the price of the product in this field. If a product has no price, the word "Call" will appear on a list of found items so that your customers know to contact you to determine the price.
- **E** Discount Percent If you want to offer a percentage discount on your product pricing, enter one here. Discounts should be entered as a decimal and will be converted to percent format when you exit the field. The final price that customers will see is the Price less any discount. The original price will not be displayed.
- **E** *UPC* This field is an extraneous information field. Any information entered here will appear on product information pages.
- **E** *Picture* If you choose to import pictures, press the *Import Pictures* button. A thumbnail will be displayed in the box to the right of the button. Importing pictures will slow down your store and increase the size of the application considerably. If you have chosen this option, be sure to leave the *Picture Name* field blank.
- **N** Taxable Choose Yes or No to designate your product as taxable or not taxable. Making your product taxable will only apply taxing to sales in the state you selected earlier at the rate you entered in the **Credit Setup** preferences. See **Tax Info** for more information on the tax issue.
- Special Price This is a calculation of the Price minus (-) the Discount Percent. This is the final price
 that will appear when this product is displayed. If no discount is given, the Special Price and Price
 fields will be the same. This field is not editable. To change the value of this field change either the
 Price, Discount Percent or both.

PRODUCT SPECIFIC ATTRIBUTES

Ch-Ching! allows you to sell variations of the same product with different attributes. One example may be shirts that are available in different sizes and colors. If the shirt has the same price, and you wish to use the same Product ID, then the product is said to have a user selected attribute. Ch-Ching! supports both global and product specific attributes. If every product in your catalog shares a common group of attributes you can use Product Attributes 1 through 4 to store the options. However more likely your products will have unique attributes, such as different sizes or name for colors. To create product specific attributes, start by using Product Attribute 5. Enter the attribute label, such as 'color' followed by a colon (:). Next enter the different

colors the product is available in separated by a comma (,), ie.

Color: Red, Green, Blue

You can continue to use attributes 6 through 10 to store additional product specific attributes such as size, etc... These attributes require the additional installation of the Java Module *attrib.class*. This module is found in the Ch-Ching! distribution and should be placed in the Java Modules folder within the Lasso Modules folder in yourWeb server. If your store is hosted at an ISP, ask them to install this module for you. After installation, restart your Web server, no additional installation is required for the module.

Exemplified on the Detail page of the template distributed with Ch-Ching!, you will see pop-up menus created with the options of the individual attributes.

The attributes the customer selects will be concatenated onto the Product Name when appearing on the customer's invoice. Example:

Product Name - Man's T-Shirt

User Entered Attributes for Size - M

User Entered Attribute for Color - White

Will appear as: 'Man's T-Shirt - M/White' on the customer's invoice. Create as many additional products as you like by pressing the *New* button to add each new product.

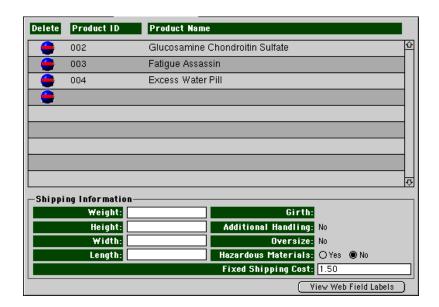
Shipping Information

- **E** Weight This is an extraneous field that can be used by developers to interface with UPS or other online shipping rate calculators.
- **E** *Height* This is an extraneous field that can be used by developers to interface with UPS or other online shipping rate calculators.
- **E** Width This is an extraneous field that can be used by developers to interface with UPS or other online shipping rate calculators.
- **E** Length This is an extraneous field that can be used by developers to interface with UPS or other online shipping rate calculators.
- *Girth* This is a calculated field that can be used by developers to interface with UPS or other online shipping rate calculators. This field is a calculation of the *Width*, *Height*, and *Length* fields. It cannot be edited. Changes to the aforementioned fields will change the value of this field.
- Additional Handling This is an calculated field that can be used by developers to interface with UPS. This field is set by UPS standards based on whether or not the information in the *Length* field

- exceeds the maximum UPS guidelines requiring Extra Handling. The value of the field cannot be changed.
- Oversize This is a calculated field that can be used by developers to interface with UPS. This field
 is set by UPS standards based on whether or not the *Length* and *Girth* fields exceed the maximum
 UPS guidelines requiring Extra Handling.
- **E** *Hazardous Materials* Choose Yes or No based on whether or not the product is or contains a hazardous material. For an updated list of hazardous materials, contact your shipping agency.
- **N/E** Fixed Shipping Cost—This is a flat rate you charge to send this package anywhere. Enter any price you would like to charge to ship this product. If the customer purchases 2 of these items, the shipping cost will be doubled. To effectively use this field, read the Shipping Rate section of Address Setup to determine the best method for charging shipping and handling. If you have chosen the Minimum or Calculated shipping methods, this field is essential.

PRODUCT LINKING

Above the product information screen is a button allowing you to access the Shipping and Links settings of each product. Product linking allows you to tie the display of one product to another. When a customer searches for products in your store and is presented with a results list that match their criteria, each product displayed will show additional information about related products. Product links are not inherently recursive, allowing you to link one product to another without having the related product linked back. This is especially helpful when linking a product with all of it's accessories. Many accessories may be generic and not appropriate for relating recursively.



Creating a link between products is very simple. While viewing the Shipping and Links screen, enter the Product ID of each related product. To delete a link, simply select the delete button to the left of the Product ID you wish to delete. This will not delete the related product, only the link. If you enter the Product ID correctly, the name of the related product will appear when you move your cursor out of the ID field. If no name appears, recheck the ID you entered and try again.

Product linking is a very powerful tool when used correctly. Women's clothing catalogs frequently display one image containing a blouse, pants, and shoes. When a customer finds pants they like, they can easily purchase matching shoes or blouse.

IMPORTING PRODUCTS

To import products from a spreadsheet or database, select *Import Products* from the Utilities menu at the top of your screen. Browse for your tab-delimited text file and click on the Open button. A window will appear, showing the data from your first product on the left, and the field names for your Ch-Ching! store database on the right. You will need to align the data in your file with the fields in the store database.

To determine product field names click on the view web fields button. This will match the field labels with the field names Ch-Ching! uses internally allowing you to determine the appropriate field name to import into.

Select the field on the right that corresponds with the first item of data on the left. Drag the field to align it with the matching data. Click in the middle column to confirm placement. An arrow should appear signifying that the data on the left will be imported into the matching field on the right. Continue aligning field names with data.

Note: When you have matched all of your data in the left column with the appropriate field names in the right column, many fields will not have matching data. That is OK, these are generally fields that do not pertain to products. You may also find that certain fields cannot be imported into. Those fields create their own data based upon other fields.

Once you are finished, click on the *Import* button at the lower right of this window. Select the *Perform Auto Enter* option and click on the OK button. Your data will be imported into your Ch-Ching! database.

If you have chosen this method of creating products, refer to Appendix A, the Import Fields Table on page 24.

Chapter 3: Remote Administration

You can administer your store using a Web browser to do all functions of store maintenance from any location in the world.

Using any of the popular Web browsers on any platform including Unix, you can create, edit, and delete products; review and edit orders; and change store preferences. Ch-Ching! uses a built-in security system to protect your store from being tampered with remotely by others. It also relies on two other layers of security for protection, web server realms and Lasso security. Altogether your store can be very safe, but you need to ensure its safety by not sharing your usernames and passwords with others.

To begin administering your store, log into the admin module by connecting to the web site address your store host has provided.

You should see a screen with the Ch-Ching! logo and three text entry boxes below. These boxes will ask you for your Store Database Name, User Name, and Password. In our example, and if you have made no change to the Ch-Ching! application name, the Store Name should be ch-ching.fp3. The User Name and Password are the same Remote Username and Remote Password you entered earlier in your store setup. Enter these three, and press Login. If you make a mistake, the admin screen will tell you so and allow you to try again. If you are not able to log in after several attempts, consult your Ch-Ching! host to verify your information.

On the menu buttons, you have nine options: *Products, Customers, Orders, Ordered Items, Products – List, Customers – List, Address Setup, Credit Setup,* and *Internet Setup.* We will look at them one by one to understand how they work.

The store administration module functions identically to the Ch-Ching! application with a small idiosyncracy. After editing an item, you must press the *Update* button for your changes to take place.

Several Action buttons allow you to perform simple tasks:

Reset – Restores changes made prior to pressing the *Update* button.

Find — Moves you to a search screen to enter criteria to search for. Once you have entered your criteria, press Find again to begin the search.

New – Moves you to a screen to enter new information. Once you have filled out all necessary information, press *New* again.

Delete – Will remove the current record from the store database.

PRODUCTS

Click on the Products menu button and you will be taken to the product information screen. You can move

from product to product by pressing the *forward* and *back* button. You can make changes to any field. To make your changes take effect, press the *Update* button.

To create a new product, press the *New* action button, and begin to enter the product information. Once you have completed entering all of the product information, press *New* again to add the product to the store database.

To find a product, press the *Find* action button. Once you have entered all of the criteria you wish to search for, press *Find* again.

Note: If you wish to have a picture represent your product, you will need to upload the picture file to your server computer. Follow the instructions given to you by your Ch-Ching! host and be sure to enter the picture name in the product information screen.

CUSTOMERS

Click on the *Customers* menu button and you will be taken to the customer information screen. You can move from customer to customer by pressing the *forward* and *back* button. You can make changes to any field. To make your changes take effect, press the *Update* button.

To create a new customer, press the *New* action button, and begin to enter the customer information. Once you have completed entering all of the customer information, press *New* again to add the customer to the store database.

To find a customer, press the *Find* action button. Once you have entered all of the criteria you wish to search for, press *Find* again.

When presented with a list of Customers that match your search criteria, you will be able to click on the Customer Name link for a complete detail of each customer, or click on the customer's email address to send an email to that customer.

ORDERS

Click on the *Orders* menu button and you will be taken to the order information screen. You can move from order to order by pressing the *forward* and *back* button. You can make changes to any field. To make your changes take effect, press the *Update* button.

You can modify any field on the Orders screen. The two most frequently modified fields are *Status* and *Shipped*. You can use these fields in any manner, however they were intended to be used to designate the status of payment and shipping of the order. When using automated credit card processing, the order *status* will be set to "closed" automatically when the customer's credit card is approved. In this case you should

ignore orders that have the "Open" status. Once you have shipped the product(s) for this order, change the Shipped field to Yes.

To find a list of orders paid for but not yet shipped, use the find button and search for orders with the Status set to "closed" and the Shipped field set to "No."

If you are manually processing credit cards off-line, your orders will always remain "open" until you manually "close" the order status yourself. When you receive the authorization number for that order from the credit card transaction company, enter this code in the field provided on the order detail screen and change the *Status* field to closed. Once you have shipped the products for this order, change the *Shipped* field to Yes.

To find a product, press the *Find* action button. Once you have entered all of the criteria you wish to search for, press *Find* again.

ORDERED ITEMS

By selecting *Ordered Items* from the menu buttons, you immediately find a list of all items ordered. Click on the *Order ID* number for a complete detail of each order. On the order detail screen you will find links to customer files and to product information regarding each product, and a link to email your customers. You can edit the customer information and/or product information from these links or by selecting the Customers or Products Menu buttons. Any changes you make to customer or product information will be changed globally for all subsequent and past orders.

This list will show 10 items at a time. To view the next group of 10 items, press the *Forward* button near the bottom of your screen.

PRODUCTS - LIST

If you select *Products — List* from the menu buttons, Ch-Ching! will find all products and display a list. If you performed a search in Products, Ch-Ching! will display only the products that match your search criteria. You will be presented with a columnar list. This list will show 10 products at a time. To view the next group of 10 products, press the Forward button near the bottom of your screen.

To delete a product, click on the *Delete* button next to it. Be very cautious with this button — deletions are PERMANENT.

Click on the ID link to view a full detail page and to allow you to edit information about your product.

CUSTOMERS – LIST

By selecting *Customers – List* from the menu buttons you immediately find a list of customers. Click on the Customer Name link to get a full detail page of that customer's information, or click on the customer's email address to send an email to that customer. On the customer information page, you can edit all the information

about the customer, including the billing information or the password. If you change information in this screen, it changes for all subsequent orders and all past orders.

Chapter 4: Configuring Security

The most common cause for confusion when installing the Ch-Ching! store has arisen from security settings. Please read the following chapter very carefully. Without properly configuring security, you will be able to search through your Web store however, when you go to place an item in your shopping cart you will get an error message.

If all else fails and you are unable to properly configure security, please contact Imacination for support.

SECURITY AND THE WEB COMPANION

With the release of Lasso 3.x, new options for communicating with FileMaker based databases have been established. Traditionally, communication between Lasso and FileMaker databases had been restricted to AppleEvents. With the release of FileMaker 4.0, the Web Companion, a pseudo web server, Lasso can now communicate with FileMaker via TCP/IP communication. This lifted the restriction of Lasso and FileMaker needing to exist on the same computer and allowed Lasso to become a cross-platform CGI connecting to Windows based FileMaker databases where AppleEvents do not exist.

Lasso refers to this connection method as FileMaker Remote Mode. FileMaker Remote Mode presents advantages and disadvantages alike. The primary advantage is the ability to host your Web server on one computer and host your databases on another. You can combine any combination of platforms to host from, such as your website on a Macintosh Web server and your databases on a Windows based computer, and viseversa. Even when using a single computer for hosting both your website and your database, using FileMaker Remote Mode (FMR) has a significant performance advantage over AppleEvents.

Users of Windows based servers must use this method, while Macintosh servers have the option to use or not to use this method. FMR provides greater performance, yet requires that you use a full, registered edition of FileMaker in difference to using the free run-time edition available at our website.

If you are operating a Macintosh Web server and elect not to use FMR, skip to *Updating Your Lasso Security Table*, if you are using a Windows based Web server or elect to use FMR with a Macintosh Web server read on.

While FMR provides additional performance, it also has a greater inherent security concern and requires additional, although not difficult, setup time. Two modes of FMR can be used: With Web Security, and FileMaker Access Privilege security. Web Security provides the greater security, however somewhat slower performance, while the latter provides almost no security, yet greater performance.

How to choose between the two security methods: If you can host your database on a computer other than your Web server, which cannot be accessed from the Internet, then FileMaker access privileges may be enough security for you. If you do not have this option, then nothing less than Web Security should be used.

To use Web Security, you must have the Web Security.fp3 database supplied with either Ch-Ching! or FileMaker 4.0 open at all times that your store database is open.

Included in the Ch-Ching! folder you will find a Web folder. This folder contains items that need to be included in the Web folder of Filemaker Pro. You will find a file called *default.htm* and an *images* folder. This file acts as a wall against anyone attempting to connect to your database directly via the Web Companion. Remove the current contents of your Web folder and replace them with this one file and folder. Next, place the Web Security.fp3 database in any location on your hard drive, and open the database. This database replaces the Web Security database that shipped with Filemaker and needs to be running at all times, so you may want to put an alias to it in your Lasso Startup Items folder.

To connect to Ch-Ching! via FileMaker Remote Mode you must enable the Web Companion in Filemaker. Do this by selecting the Application preferences from Filemaker's 'Edit' menu. From the displayed pop-up list, select 'Plug-Ins.' Enable the Web Companion and click 'Configure.' It is highly recommended that you make some changes to the default settings.

Disable 'Instant Web Publishing.'

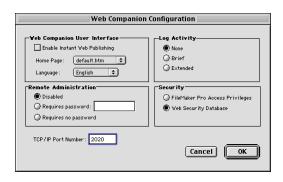
Select 'default.htm' as the homepage.

Change the port from 591 to an obscure number that does not interfere with your other TCP/IP services. Generally use a number that is higher than 1024, but avoid 8000.

Disable remote administration.

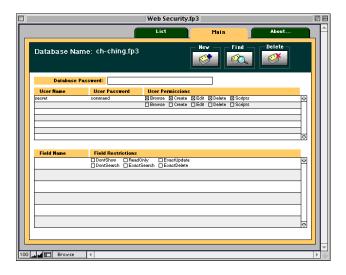
Set the Log level to 'None.'

Enable the 'Web Security Database.'



Next, open your Web Security.fp3 database. Create a new record by clicking on the New button on the Main

layout.



Enter *ch-ching.fp3* as the database name. Leave the Database Password blank. Create a new user with the Username and Password you entered in your *ch-ching.fp3* database as Remote Administration.

Give this user all permissions available. Do not create any additional users. This database must now be open at all times when you want access to your Web store.

Before moving further, let's make sure the *ch-ching.fp3* database is open on the same computer as the *Web Security.fp3* database we just configured.

Now, accessing your Lasso Administration screen with your web browser we need to enter the Filemaker Remote link located in your Lasso Security Settings.

Once arrived, we will first add the remote host with the information we entered in the FilemakerWeb Companion setup dialog.



Enter the IP address of the computer the Filemaker database resides on, and the port you configured in the Web Companion. Click Add.

If both the *Web Security.fp3*, and *ch-ching.fp3* database are open and the IP address and port number you entered are correct, then you should see their names listed at the bottom of the page. If they are not present, verify that they are both open and your IP settings are correct.

If the fields are left blank no user name or password will be used. Select the checkbox to use the defaults entered above.

Database Name	User Name	Password	Use Defaults	Do ISO/Mac Conversion
Web Security.fp3			×	×
ch-ching.fp3	secret	•••••	×	×

Enter the Remote Username and Remote Password for your *ch-ching.fp3* entry and update. Just for verification purposes, let's reiterate:

The Remote Username and Remote Password you set in the Internet Setup of your Ch-Ching! store, should be the same Username and Password appearing both in the *Web Security.fp3* database and in the Lasso Filemaker Remote settings.

This should conclude your Web Companion configuration. Additional documentation is available in the Lasso manual titled, Filemaker Pro Modules User Guide. Now proceed to the final step of setting security:

UPDATING YOUR LASSO SECURITY TABLE

Updating your security settings in Lasso 3 equipped web servers is very easy. Make certain that the new store database is open by double-clicking on the *ch-ching.fp3* icon. Verify that the Internet Preferences contain a Remote Username and Remote Password. Next point your web browser to the Store Administration URL you created earlier. You will appear at a blue screen requesting the Store Name, User Name and Password.

Enter the name of the store whose security settings you wish to create, ie.

Store Name: ch-ching.fp3

Enter your Lasso Administrator username and password, ie.

User Name: Administrator
User Password: mypassword

This is not your Remote Username and Remote Password, but the username (always Administrator) and

password you created when accessing Lasso for the first time.

Login.

Ch-Ching! will take a moment and automatically create all the necessary security settings for your new store. If you entered the correct information, you will be logged into the Ch-Ching! administrative module and taken to the "About.." menu. If one of the parameters you entered was incorrect, you will be returned to the Blue login screen.

To view a table of what security options Ch-Ching! has created for your store, refer to Appendix B: Lasso 3 Security Table.

These changes are effective immediately. Lasso 3 does not require that you restart your web server. Immediately following this step, your store is now open, and can now start taking shoppers.

After this point, when you choose to administer your store remotely, you will access this page and enter the Remote Username and Password for your store.

FTP

If the store owner does not have direct access to the computer that hosts his or her store then they must have a method of uploading their product pictures.

The easiest method would be to create FTP rights for the store owner. At a minimum this will be the directory to which they upload their product images. By default, Ch-Ching! ships with a folder called "products," in the "images" folder, residing in the "store" folder. Ch-Ching! has been programmed to look to this folder for all images of products not imported into the database. Store owners performing remote administration will need FTP privileges to upload, delete, and rename files in this directory. Be sure to instruct your customers about the use of the FTP site.

Consult your FTP or Web Server manual for specific instructions and security concerns.

Chapter 5: Designing Your Store

STORE DESIGN

Traditional online stores follow a basic flow of events that take you from locating the product you need to purchasing and check out. Appendix A, demonstrates the Shopping Cart Methodology, displaying process pages in black and display, or HTML, pages in gray.

Your store can be modified to have a different flow events such as first logging in then browsing for products and finally checking out. This is common in business to business environments when only authorized users should be able to browse your store.

Our example template follows the traditional event flow, but with time you should be able to modify this to fit your needs.

FILE STRUCTURE

Ch-Ching! stores all relevant data within a single database. This makes management of the store very convenient. For the data that resides in the database to appear on the Web, it needs to be searched and displayed within special HTML templates.

The Ch-Ching! store template is divided into process pages and display pages. Process pages, pages with a .lasso suffix, conduct actions or processes, then display the results in display pages, common HTML pages with special DHTML substitution tags.

An example function of a process page would be to conduct a search of your store to find all products on special. Once found, the process page would display the results by calling the page specials.html using a special "include" tag.

The include tag provides the ability to separate the necessary scripting from the HTML pages, resulting in HTML pages that are "clean" of non-HTML code.

Searches can be conducted by the user by creating an HTML form that is directed to the database, or they can be conducted automatically via a special DHTML tag called an INLINE.

Located within the Ch-Ching! store folder are several pertinent folders: lasso, html, images.

The lasso folder contains pertinent Lasso scripting tags that affect the management of your store, but do not affect the appearance of your store. The html folder contains HTML files that act as the templates for the appearance of your store. The images folder contains necessary images that are displayed within your store, and images of your products.

Mentioned earlier, the Lasso CGI is a robust set of Dynamic HTML tags that offer features such as database connectivity, token and variable maintenance, text parsing features, and more. However, some graphical web editors do not process the syntax of DHTML very well and either attempt to "correct" it, or completely remove it. This causes the malfunction of your store. To avoid this, it is more appropriate to design your store by dividing your pages into DHTML pages and HTML pages.

The DHTML pages appropriately have the suffix ".lasso" while the HTML pages simply have the suffix, ".html"

How do the two pages intertwine? The first page of the example shopping cart solution is catalog.lasso. This should be the page referenced by a link from your Web site. When catalog.lasso is called, it processes the internal DHTML and calls catalog.html to display to the user. This is done via tag called the INCLUDE tag.

To change the appearance of the main page, simply open the page catalog.html with your favorite Web page editor.

Lasso provides for several syntaxes to represent the same DHTML tag. The standard syntax for a field tag would appear as,

```
[field:'fieldName']
```

The Lasso Object Syntax for the same field tag would appear as,

```
<ldml_field tag="field:'fieldName'">
```

The proprietary syntax has provides for easier reading. The object syntax provides a Web editor friendly tag that is interpreted by the editor as an HTML tag, and inturn is preserved without accidental encoding. This syntax is preferred when embedding a Lasso DHTML tag within the body of an HTML page. The proprietary syntax is preferred when creating scripts in a format file that does not contain HTML.

The Nutri-Pro, Inc. example template is designed using both syntaxes in their respective environments. Within the store folder you will find a group of files with the extension '.lasso.' These are files that contain server side scripting, they perform searches on the store database, or create variables, then based on conditionals include standard HTML template files to display the data.

Within the HTML template files, fields from the database are displayed using the Lasso object syntax.

Thus, the function of the .lasso files is to provide the methodology of the store, create the searches and determine what should be displayed, the .html files construct the user experience or the actual interface your customers will see. If you want to change how a customer moves from page to page, you would make changes to the .lasso files. If you want to change just the appearance of the Web store, you would change the .html files.

The .html files should be safe in most graphical Web editors and are safe to open and manipulate freely, note that some graphical editors including MacroMedia Dreamweaver have an option to "correct" HTML. This option can be found in the editor preferences and should be turned off before beginning to edit any store

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pages. The .lasso files do not contain and graphical objects and should be opened for necessary changes with a text editor such as BBEdit or Notepad.

WEB PAGE DESIGN

To display a field from your database on your store, you need to place the field on the HTML template page. Viewing the database, it may be difficult to determine the field names. To simplify this, you can press the 'View Web Field Labels' button on most layouts. This will help in the design of your Web site. Some fields are related and are represented as 'relationship name::field name.' Unfortunately, FileMaker substitutes the current time for the occurrence of a double colon (::) on a layout, so to prevent this we used a space between the colons.

This space should be removed when retypeing the field name, ie. the Customer address field appears as:

ordCustomers: :custAddress, and should be entered as ordCustomers::custAddress with no space.

Nutri-Pro, Inc. exemplifies a simple online store solution that is easily designed and modified using popular graphical Web editors.

You can use the Nutri-Pro, Inc. example to instantly publish your Web store online by simply modifying certain graphics such as the header graphic, header.gif to suit your tastes and corporate identity.

All graphics that appear in the Nutri-Pro, Inc. template have blank counterparts that appear in the blank images folder.

By simply opening the graphics located in the images folder with your favorite graphics editor you will be able to create an attractive online store without modifying any HTML.

Following is a short tutorial on the operation of your Web store with a description of the more advanced concepts. You are not limited to the functionality demonstrated.

Entering the online store

The store folder contains an identical default.htm and default.html. This serves as an entry point for Web servers that are configured to serve either as the main index page.

Once arriving at the default page, the user clicks on the Ch-Ching! logo and is taken to catalog.lasso. Alternatively, you can create a link from yourWeb site, directly to catalog.lasso bypassing directly any intermediary page.

Catalog Page

Concepts: [inline:...][if:...][include:...], maxRecords

As discussed earlier, the [include:...] tag simply places the body of the referenced file with the current file

where the tag exists. The first include tag we encounter in this shopping cart includes a file named, name.lasso. The name.lasso file sets a variable containing the name of the Web store database. Since the database name could be changed, it would be inconvenient to update every file that references the database name, instead we create a single file with the database name and read the file using the [include:...] command. Then we can reference the store database by using the variable [var:'dtb'].

The (var: 'dtb') tag is substituted with the current database name within the page.

The Inline tag provides for actions to occur with or without user intervention. You are probably familiar with entering information in a form to search the Internet. The form you submitted directly accesses the server CGI and performs a search, returning the result.

The [inline:...] tag allows you to process an action, such as a search, without requiring the user to submit a form. This is exceptionally useful as we demonstrate in the file catalog.lasso, where we want to automatically display products on special without requiring the user to enter our store and search for specials.

```
[inline: database=(var:'dtb'), layout='www_products',
'prodSpecial'='Yes', maxRecords='5', -search]
```

As shown above, the tag takes parameters such as the database name, the layout to search, the field name and value to find and the maximum number of records to display on the results page.

The [if:...] and it's counterparts [else:...], and [else:if:...] permit you to create conditionals. Conditionals are a very strong utility in dynamic Web sites. Combined with substitution tags you can display content based on certain criteria being met.

We just reviewed the use of the inline tag to search the database for any products on special. After conducting the search, we may need to display different pages based on the results. For example, if the store has no products on special then we want to display a search page, if the store does have products on special, we will want to display the specials page. This is done as follows:

```
[if:(found_count) == 0]
    [inline:database=(var:'dtb'), layout='www_categories', -random]
          [include:'html/search.html']
    [/inline]
[else]
    [include:'html/specials.html']
[/if]
```

(found_count) will be replaced with the number of products on special. If this number is zero, we will display the search page, otherwise ([else]) we will display the specials page.

More extensive usage of the [if:...] tag can be made including complex nested [if] tags that will require the match of multiple criteria.

Results Page

Concepts: <ldml_field>, <ldml_records>, [link_detail], <ldml_nextgroup tag="shown_nextgroup">

When entering the Web store, one or more products where found on special, the Lasso includes the specials.html page to format the results. The concepts described here also reflect the page, results.html and can be interchanged.

The results page is an HTML template that can be used to display information about a single record, or dynamically reproduced to display multiple records.

The <ldml_records tag="records"> tag is a looping container tag. It will duplicate everything within the opening of the tag and the closing (</ldml>).

It will loop either the number of times set in the maxRecords parameter, or the number of found records, which ever is smaller.

The <ldml_field> tag will display the contents of the field on the current record. On the next loop of the <ldml_records> tag, the <ldml_field> tag will be substituted for field in the next record.

As noted earlier, using a tag such as maxRecords, you can specify how many results should be displayed on each page. To view the next group of results, we use the "shown_nextgroup" tag. This conditional container tag will create a link to the next group of results.

Typically, a results page will show a minimal amount of information about several products and will contain a link to a Detail page providing all information available about the product. This link can be created dynamically with the [link_detail:...] tag. This tag is used within a <a href> tag to create a link specifying the response page that should be used to display the data, and which layout to use. The layout can typically remain the same as the current layout within Ch-Ching!.

```
[link_detail:layout='www_products', response='detail.lasso',
linksearchagain]
```

Detail Page

Concepts: Add items to cart

The link to the detail page references a file called detail.lasso. This page uses a series of (if:...) tags to determine which HTML file to display. If the price field is not blank,

```
[if:(field:'prodDiscPrice' != '')]
```

the customer will be taken to the detailbuy.html page, showing her greater product information and including the option to buy the product.

If the price field is blank, the customer will be taken to detailshow.html, showing her greater detail about the product but displaying the words "Out of Stock" and not including any buy button.

To add an item to a customer's shopping cart, the following form appears on the page. You will notice several dynamic tags. They are populated by the fields on the layout.

```
<form method="POST" action="action.lasso">
<input type="hidden" name="-database" value="[var:'dtb']">
<input type="hidden" name="-response" value="field:fileCartResult3">
<input type="hidden" name="-maxRecords" value="1">
<input type="hidden" name="-layout" value="CartOK3">
<input type="hidden" name="prod" value="[field:'prodID']">
<input type="hidden" name="prodName" value="[field:'prodName']">
Quantity: <input type="text" name="qty">
<input type="submit" name="-finall" value="Add to Cart">
</form></form>
```

Shopping Cart Page

Concepts: Simultaneous editing and deleting

To create a link for the customer to view their cart, simply use:

```
<a href="cart.lasso">View Cart</a>
```

The cart.lasso page will conduct a search of the Ordered Items database contained within Ch-Ching! and display either the page cartempty.html or cartfull.html.

Assuming the customer has products in her shopping cart we will examine cartfull.html. You will notice a form very similar to the form in detailbuy.html:

```
<form method="POST" action="action.lasso" name="updateQty">
<input type="hidden" name="-findall">
<input type="hidden" name="-database" value="[var:'dtb']">
<input type="hidden" name="-maxRecords" value="1">
<input type="hidden" name="go" value="cart.lasso">
<input type="hidden" name="-response" value="field:fileCartResult3">
<input type="hidden" name="-response" value="CartOK3">
<input type="hidden" name="-layout" value="CartOK3">
<input type="hidden" name="-token" value="update">
<!dml_records tag="records">
<input type="hidden" name="CurrentRecordNumber" value="[recid_value]">
<input type="hidden" name="CurrentRecordNumber" value="[recid_value]">
<input type="text" size="2" name="Quantity"
value="[field:'itmQuantity']">
</ldml_records>
<a href="javascript:document.updateQty.submit()"><font face="Verdana" size="2">Modify Quantity</a>
```

The <Idml_records tag="records"> will loop the CurrentRecordNumber and quantity field by the number of items in shopping cart. When the form is submitted, Ch-Ching! will receive multiple instances of these tags and will update the shopping cart records accordingly. If a customer enters "0" or removes a quantity, Ch-Ching! will remove that item from the cart, simultaneously editing the quantity of other records in the cart.

Customer Info

```
Concepts: Required Fields, [form_param:...]
```

Before your customer can enter their credit card number they need to first enter their billing and shipping information.

A link to this page can be created as:

```
<a href="customerinfo.lasso">Checkout</a>
```

The customeinfo.lasso page will display either customerinfo.html or shippinginfo.html dependant on whether your store offers custom shipping options or not. Both pages present the customer with the option to either create a new customer record, or to login using their existing User ID and Password.

If the customer attempts to login, their information is processed by an intermediary page, customer confirm. lasso. Using an [if:...] statement, we evaluate if the customer entered both a User ID and Password:

```
[if:((form_param:'id') != '') && (form_param:'password' != '')]
```

The [form_param:...] tag is substituted with the value of the named parameter from the form that called this page. If the customer has not entered both parameters, Ch-Ching! will return the customernotfound.html page. This will also be the case if the customer entered both and ID and Password but either of the variables were incorrect or not found.

If a new customer record is created, or if one is found using the login feature, the customerconfirm.html or shippingconfirm.html page will be displayed. These pages will present the customer with their recorded information and give the customer an opportunity to either update changes or proceed to checkout.

Parameters on these, and all pages, can be made required by inserting or removing the tag:

```
<input type="hidden" name="-required">
```

If a form parameter is left blank, Lasso will attempt to display the page referenced by the tag,

```
<input type="hidden" name="-requiredfieldmissingerror" value="html/
error.html">
```

This page can remind the customer that a required field was not entered and direct the customer back to the form to correct the error.

Checkout

The checkout.lasso page the customer is redirected to is located in either of the payment folders. This provides the ability to serve this page independently with an SSL server. No new concepts exist within the checkout page, however for formatting preferences, the either a bill.html or sold.html file will be displayed dependant on the customer's shipping information.

If you are using Ch-Ching! in a country that needs to display taxes separately and not aggregated, you can

open the bill.html or sold.html files and change the field:

```
<ldml_field tag="field:'ordTax'">
to:
    <ldml_field tag="field:'ordStateTax'">
    <ldml_field tag="field:'ordCountryTax'">
    <ldml_field tag="field:'ordGlobalTax'">
```

To provide greater fault tolerance, Ch-Ching! will validate credit card data internally even when not using real-time credit card processing. If an error occurs, the customer will be redirected to the nothanks.html page. This page will return the customer to the checkout.lasso page to re-enter their credit card information. If the customer does not re-enter their information, the credit card number will be labled as Invalid in the Orders database. This processing will be ignored if your store offers PO or COD options. If this is the case, you may want to relabel the Credit Card text box to something more appropriate. Additionally, PO numbers do not usually contain a expiration date, thus you may want to remove the -required parameter preceding the expiration date.

Thank You Page

```
Concepts: [-email...], [cookie_set:...]
```

If all parameters are entered and valid, your customer will arrive at the thank you page, thanks.lasso. An email confirmation will be sent to the customer and the address listed in Email BCC Address field within the store database. You can additionally add multiple addresses to receive copies of the confirmation email by adding additional parameters to the [inline:...]

To send a copy to marketing@yourdomain.com, edit the inline to contain the following:

```
email.bcc=(variable:'bcc'), email.bcc=marketing@yourdomain.com,
email.format='emailorder.txt',
```

Ch-Ching! will kill the existing Cookie stored on the customer's browser allowing them to re-enter the store and shop fresh and using an (include:...) will display thanks.html.

As mentioned above, you may be using Ch-Ching! in a country that requires your customer's to be notified of the breakdown of each tax as opposed to an aggregation of all of the taxes represented by the field ordTax. If this is the case, open your emailorder.txt file and change the tax from:

```
Tax: [field:'ordTax']
to:
    State/ProvinceTax: [field:'ordStateTax']
    NationalTax: [field:'ordCountryTax']
```

Global Tax: [field: 'ordGlobalTax']

Conclusion

While most modifications to your store can be made without much DHTML knowledge, additional learning of the Lasso programming language is a wise investment. Many resources, including the Lasso user guide no less, are available to assist you and should be considered excellent supplemental references to the Ch-Ching! user guide. After a short learning curve, customizing your store will become natural and easy. When making changes keep a backup copy of your working store and use that to compare with if some undesired functionality occurs.

ATTRACTING VISITORS

Most likely you have an existing Web site. Following are some additional tips to attract visitors to your site.

It is traditional thinking that to gain Web site popularity, you need to be well indexed on a Web site search engine. This is true and false. Forty percent of traffic is speculated to be driven directly from search engines. That figure will probably represent the largest single source of traffic to your site, however it is less than half of your total traffic.

Constantly driving visitors to your Web site needs to be an integral part of your existing marketing campaign. Your URL should be on every piece of literature you produce.

Before you can successfully sell products to strangers on the Internet, you should start with convincing your existing customer base to buy from you over the Internet. This will first relieve some of the load on your existing sales channels, additionally your existing customers will be more tolerant of any technical difficulties as you begin and are and excellent source of feedback.

Many books have been written on the subject of optimizing your web site for search engines. This guide is not an attempt to replace any of those resources, but we will provide some basic information.

There are hundreds of search engines but only six that have emerged as the true leaders of general indexing of the Web. Among the top search engines, only a fraction, between 20 - 30%, of the Web is indexed.

Each search engine indexes sites differently and some change their methods of prioritizing sites on a weekly basis. To keep abreast of changes and the latest techniques of promoting your site, you may want to subscribe to an Internet newsletter on the subject. Such newsletters can be found at various Web sites focusing on search engines. One such site is Submit-It, http://www.submitit.com. Submit-It is unaffiliated with Imacination Software and we cannot guarantee their content.

When planning your Web site campaign, consider not only how to drive the most traffic to your site, but how to drive the right traffic to your site.

Consider Acme Widgets.

Beginning their Web campaign, Acme quickly moved to top placement among the leading search engines for a variety of keyword searches. However, analyzing their Web site statistics, they found that the overwhelming majority of traffic was coming from other industry related Web sites. This was occurring because their potential customers looked for their products in different ways then searching through search engines.

Niche companies may get better returns for their efforts by participating in link exchanges and placement in associated Web sites, then high listings on Web search engines.

With that in mind, we will provide a quick tutorial on maximizing your Web pages indexing potential.

The three factors most important in the indexing of a Web site are the keywords, title and description.

Keywords:

These are the words that your potential viewers will use in the search engines to find your site. The search engines will match these words with the words in your site title, in the body of the HTML, and in the METATags (more on meta tags later).

To attract visitors, potential customers, you will want to use appropriate keywords in the design of your Web site. Write a list of the words best associated with your content or store. Consider the related words, ie. If you sell gift cards that compliment floral arrangements, you will want to use keywords that a florist might use to find flowers. Among the returned list of sites the florist may browse your store due to your related products.

Attempt to write 30 - 60 keywords. Always consider common misspellings of important keywords. Poor spellers are consumers too.

Description:

Although rare, some search engines will display a short description of your Web site. A sesyncht description of your store may attract buyers. This description is written among the META tags of your site HTML.

Your description should be 25 - 50 words and 50% or more of the content should be your previously written keywords.

Title:

Your site title is one of the first places search engines look for keywords. Plan on a site title ranging between 20 - 100 characters in length and containing as many pertinent keywords as possible. This is the place for your primary keywords, not your relational keywords.

The title should also contain the name of your business and begin with a character as close the beginning of the alphabet as possible, as some search engines sort results alphabetically by title.

Drawing upon the keywords, description, and the title you wrote, you will place them in the HTML of your site. All 3 appear in the

```
<HEAD>
...
</HEAD>
```

segment of your Web pages. If your Web pages don't already contain a <HEAD> portion, now is the time to add one. It should appear within the <HTML> and <BODY> tags as below.

```
<HTML>
<HEAD>
</HEAD>
<BODY>
```

META tags:

META tags are HTML tags that do not affect the display of your Web page, but are used by search engines for determining the content of your site.

Using the keywords you wrote earlier, edit the HTML of your pages to include those keywords as follows:

```
<HEAD>
<META NAME="KEYWORDS" CONTENT="comma, separated, list, of, keywords">
</HEAD>
```

Now using the description you wrote earlier, edit the HTML of your pages to include the description as follows:

```
<HEAD>
<META NAME="KEYWORDS" CONTENT="comma, separated, list, of, keywords">
<META NAME="DESCRIPTION" CONTENT="Electronics boutique featuring products such as Sony, JVC, Panasonic,...">
</HEAD>
```

Finally, using the title you wrote earlier, edit the HTML of your pages to include the title as follows:

```
<HEAD>
<META NAME="KEYWORDS" CONTENT="comma, separated, list, of, keywords">
<META NAME="DESCRIPTION" CONTENT="Electronics boutique featuring products such as Sony, JVC, Panasonic,...">
<TITLE>Alternative Electronics, Sony, JVC, Panasonic, camcorders, VCRs, DVD</TITLE>
</HEAD>
```

Since images are not text, using images on your site that contain pertinent keywords will not be indexed by search engines. Therefore, it is helpful to include text descriptions of your graphics within the HTML of your site. Suppose you had graphics that read, "FTD member." It would be wise to include those keywords into the HTML syntax surrounding that image. This is done easily by add an ALT statement to all image tags as follows:

```
<img src="images/ftd.gif" alt="FTD member">
```

Chapter 6: Advanced Features ____

UTILITIES

Import Products – Allows you to import products and information from a foreign source. This could be a spreadsheet, a delimited text file, or another database. See creating products for detailed information on using this feature.

Upgrade Version —This smooths the act of upgrading Ch-Ching! from one version to the next. To upgrade a version:

- 1) Rename your old Ch-Ching! application, "ch-ching_export.fp3."
- 2) Open the new version of Ch-Ching!, and agree to the user license.
- 3) Select "Upgrade Version" from the Script/Utilities menu.

You will be warned that Ch-Ching! needs to delete all records to continue.

- 4) Click the OK button.
- 5) Browse to find the old version of Ch-Ching! (your old store, now renamed "ch-ching_export.fp3").
- 6) Click the OK button.

Ch-Ching! will import your old database into the new application.

PLEASE NOTE: You cannot upgrade from like versions of Ch-Ching!

BackUp — Ch-Ching! will perform a backup of your store to the folder in which your database resides. To automate this process copy the StartUpltems.lasso file in the Ch-Ching! distribution into the Lasso Startup Items folder found in your Web server folder. Follow the configuration instructions below.

This step can only be done by someone with access to the Web server application. If your store is in a hosted environment, you will need to contact your host.

Located in the root of your Web server, resides a folder called Lasso Startup Items. Most likely the folder is currently empty. Place the file startupitems.lasso, located in the Startup Items folder in the Ch-Ching! distribution, inside the Lasso Startup Items folder.

Open the StartUpItems.lasso file. There are two lines:

```
[post_inline:...]
[post_inline:...]
```

These lines instruct Lasso to execute the commands in the files backup.lasso, and deletebrowsers.lasso, at idle time on or after 1 am and 1:30 am respectively.

When the Web server restarts, it will process this file and set a time clock to process those files every night at the set times.

As you observe, the path to the files to process, backup.lasso and deletebrowsers.lasso, begins with a folder named "Queued Events." This folder is also located within the Ch-Ching! distribution and enclosed are the appropriate files. Place this folder in the same folder as your Web server application. If this folder is not in the same folder as your Web server, Lasso will not find the files and will not successfully perform the database maintenance.

You can place the folder any where on your hard drive if you appropriately change the path in the StartUpItems.lasso file. You can use a relative path from yourWeb server:

```
My Stuff/Queued Events/backup.lasso
```

assumes the folder "Queued Events" is inside a folder named "My Stuff," that is in the same folder as your Web server. Or an absolute path:

```
Big Hard Drive//Projects/Queued Events/deleteBrowsers.lasso
```

Assuming the name of your Hard Disk is "Big Hard Drive," and your Queued Events folder resides in a Projects folder in the Hard Drive.

The backup.lasso file performs a nightly backup of your database. It will save the backup with the same name as the original appending "Copy" to the end of the file name, in the same folder as the original store database, ie. If you modified the name of your Ch-Ching! database to mystore.fp3, after the nightly backup, you will have a file named mystore.fp3 Copy in the same folder. Each night the file will be overwritten with the new file to avoid an overflow of database backups.

During the natural course of business, many order records will be generated that do not result in a sale. These are termed as "browsers," order records of customers that were just browsing your store.

Periodic maintenance to delete these records on a scheduled basis will help keep your store database manageable. This too can be automated to occur at a set schedule by the file StartUpItems.lasso.

Open the files backup.lasso and startupitems.lasso with a text editor. Both of these files performs actions on your store database that is restricted. Find the words: 'insert remote username' and replace with the Remote Username you have selected for administering your store. Next, find 'insert remote password' and replace with the Remote Password you selected. Example: if you selected Commando as your Remote Username, and Jumbo as your Remote password, the file should look like this edited:

```
-clientusername='Commando', -clientpassword='Jumbo'
```

Save and close these files. Restart your Web server, and your store maintenance will now be automated.

Open the backup.lasso file and set the name of the database to backup.

Update Database Name —This utility creates a file called *name.lasso*. The file will be created in the same folder as the Ch-Ching! application. You should use this utility when you change the name of the Ch-Ching! application. After generating this file, you should place it in the "includes" folder within the "store" folder, and in the "includes" folder in your secured folder.

Export Products, Customers, Orders, and Ordered Items - These utilities are provided to allow developers and advanced users the ability to export their sales and customer data into other sources, such as another database, or a spreadsheet application to create sales statistics, mailing labels, inventory management, etc. When these utilities are executed, they will create a tab-delimited text file in the same folder as the Ch-Ching! application.

THE INTELLIGENT SHERLOCK WRITER

Since the delivery of the Macintosh Operating System version 8.5, Apple integrated a search tool called the Sherlock. Sherlock extends the standard Macintosh find file dialog box, with searching Internet sites and displaying results for the user to navigate. This technology has quickly been adopted by many Internet sites that incorporate search capabilities, including many large scale book and music stores, allowing Macintosh users to quickly find books or music that interest them. At this time, only Macintosh based servers equipped with Lasso 3 can utilize Ch-Ching!'s "Write Sherlock Plug-in" feature.

Why are Ch-Ching!'s Sherlock capabilities described as intelligent? Normally when a user finds a group of matching products with the Sherlock, links are created that quickly launch the usersWeb browser and displays the complete product information from the website. If the user would like to browse between the found titles, she needs to return to the Sherlock to follow the next product link.

Ch-Ching!'s Sherlock capabilities share information about the user's search parameters with her web browser. This allows the user to navigate from product to product seamlessly within her Web browser, without ever needing to return to the Sherlock to follow the next link! Yes, very cool.

Ch-Ching! takes advantage of Lasso 3's file writing capabilities to write the Sherlock plug-in. This requires the addition of the optional file_tags.mod located in the Extending Lasso folder, included with Lasso. This module is not placed in the Lasso Modules folder by default, so to use the module you must place the module in the Lasso Modules folder located in your Web server folder and restart your Web server.

You will need to configure the Lasso file tags security as follows:

trol Module Administra	anon —
	Global File Tags Permissions
Allowed Path	Permissions
/sherlock/ (from web server root)	☐ Inspect Files ☐ Create Files ☐ Delete Files ☐ Copy Files ☐ Move Files ☐ Read Files ☐ What Files ☐ Access Files Outside of Root

This menu is accessible from the Lasso Security Settings menu, titled File Tags Administration.

Additionally the Lasso format file security settings must be adjusted to add the file extension ".src".:

Format File Security		
	Add a New Format File Extension	
	(Enter a format file extension in the input field below. For example, to allow Lasso to process text files, enter . bxt in the input field and olick the Add button)	
	File Extension: .src	
	Add	

Because Sherlock Plug-ins contain a resource that cannot be transferred normally over the web, they need to be BinHexed prior. This can be done automatically by most Macintosh Web servers.

WebStar Web servers require that a file (can be empty) named .message be located in the same folder as the file to be BinHexed and the URL to the file include the suffix .hqx.

Example:

```
http://www.mydomain.com/store/sherlock/imacSearch.src.hqx
```

The file should NOT have the .hqx suffix in the filename, otherwise WebStar Web servers will assume the file has already been BinHexed.

Other Web servers may require the .hqx extension be appended to the filename and the URL. Consult your Web server manual for details on using the binhex plug-in.

To have Ch-Ching! write the Sherlock plug-in, enter your store remote administration with your web browser and click on the link "Write Sherlock Plug-in" on the Internet Setup screen. Ch-Ching! will write a plug-in

tailored for your website and place it in the *sherlock* folder found in your *admin* folder. We recommend moving the file to the *sherlock* folder found in your *store* folder and creating a link (described above) for download by your customers. This is where the sherlock plug-in will automatically look to update itself every 30 days.

Chapter 7: Troubleshooting

You have selected an item to buy from the search results list and have received a "permissions denied" screen. Go over the section regarding the Lasso Security database. Make sure that you have created the "response field" permission for each of the fields in the security table (Appendix B), and the database name matches the name of the Ch-Ching! application.

You have selected an item to buy from a search results screen, pressed "buy," and the item is not placed in your cart. Review the Lasso Security database and the Internet Preferences in the Ch-Ching! application. Make sure the Lasso Username and Password is correct and has the following permissions: "Add, Search, Update, Delete, Scripts."

If you have configured security correctly, please read the *Technical Note* on page 11 regarding the FileMaker Web Companion.

After entering and confirming shipping information, customers seem to get stuck and never arrive at the an invoice page, or they receive a message that the file cannot be found. Open the Ch-Ching! application and verify that the correct SSL URL is entered. If no URL is entered, review the instructions in the Merchant Manual and enter one now. If an address is entered, verify that the URL is correct, and that your web server has a path to one of the payment folders. For more information on this topic, review Chapter 2 - Payment Transactions.

Chapter 8: Upgrading to 2.6

Ch-Ching! has maintained compatibility with previous versions, however, individual form actions need to be updated. Previously all form actions used either the -random, -search, or -show parameter, ie.

```
<form action="action.lasso?-random" method="post">
```

The -random parameter has been replaced by the -findall parameter. All other form actions remain the same. The easiest method to update is to use your text editors Global Search and Replace.

```
Find: -random
Replace: -findall
```

If you desire to use this method to upgrade several other small changes must also be implemented. In any form, where -findall is used, the -maxRecords should be 1.

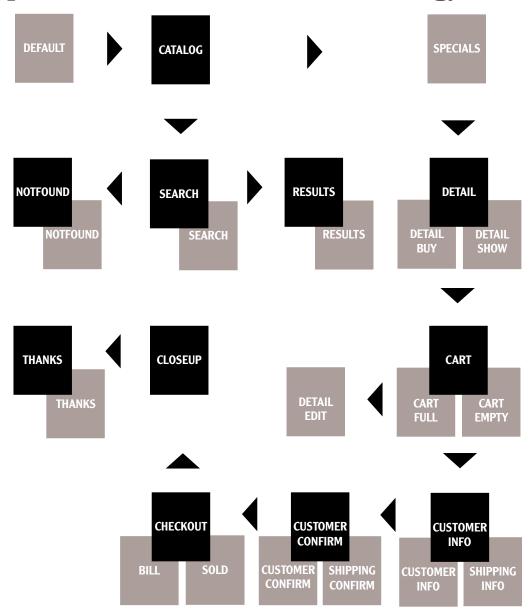
```
<input type="hidden" name="-maxRecords" value="1">
```

Results pages that allow you to purchase a product, must have a hidden field called "prod" with the Product Name.

```
<INPUT TYPE="hidden" NAME="-database" VALUE="[database_name]">
```

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Appendix A: Online Store Methodology



Traditional customer flow through your online store.

Appendix B: Lasso Security Table _____

Edit the Lasso 3 Security table to reflect the following restrictions/permissions:

Field	Permission/Restriction	Layout
fileAdmin	Response Field	www_admin
fileCartResult3	Response Field	CartOK3
fileCloseUp	Response Field	www_closeup
fileCustomer3	Response Field	www_addCustomer
fileCustomerCheckout	Response Field	www_custCheckout
fileCustomerUpdate3	Response Field	www_updateCustomer
filePostProcess	Response Field	www_postprocess
fileUpdateCredit	Response Field	www_updateCredit
fileSerialNum	Don't Show Don't Search Don't Allow Modifications	Registration
fileUserPassword	Don't Show Don't Search Don't Allow Modifications	Internet Setup
fileUserName	Don't Show Don't Search Don't Allow Modifications	Internet Setup
User All Users insertRemoteUserName	Password insertRemotePassword	Permissions Search Search Add Update Delete Scripts

Appendix C: End User License

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