

# Small Business Owners Report

## CMS Web Design and DIY Search Engine Optimization

by: **Jim Degerstrom**



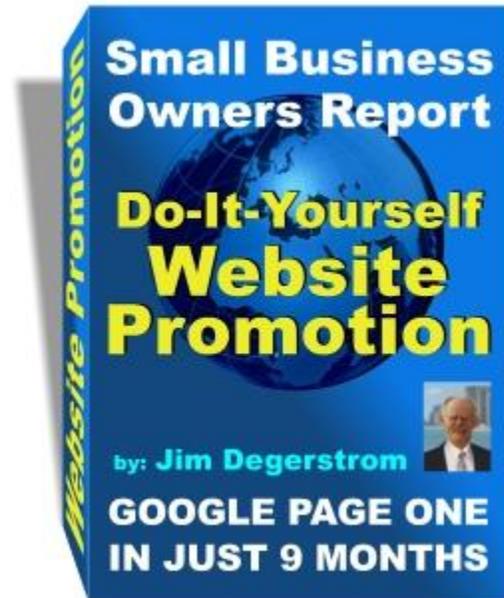
**A web design tutorial course in  
content management systems  
and search engine optimization**

Learn the basics for planning a cms or content management system  
web design and then detailed lessons on search engine optimization.

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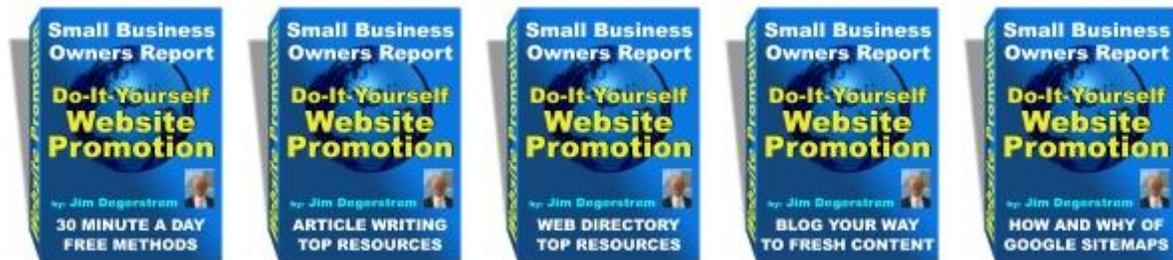
### **Introduction to Previous Reports**



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**The Others in the Series** (All featured on my site at [www.jimdegerstrom.com/reports.html](http://www.jimdegerstrom.com/reports.html))



### **About the Author**

Jim Degerstrom provides expert custom web design services and graphic art for small business owners with advice based on 30 years in management, sales, and marketing, including GM or President of small companies in 5 states. Learn about web design at [www.jimdegerstrom.com/custom-cms-web-design.html](http://www.jimdegerstrom.com/custom-cms-web-design.html), or the related website advice at [www.jimdegerstrom.com/blog/](http://www.jimdegerstrom.com/blog/) (blog) and [www.jimdegerstrom.com/podcast/](http://www.jimdegerstrom.com/podcast/) (podcast).

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**EVIDENCE MY METHODS WORK (Screenshot taken in July 2008) #1 and #2 After Paid Ads**

**PAGE ONE**

**#1 and #2 on GOOGLE PAGE ONE**

**ARE YOU WONDERING IS THIS GUY FOR REAL ?**  
 Here's just one screenshot from my list of Google page one search results.  
 In May 2008 my site would not appear anywhere near page one for a cms related search phrase. This screenshot in July 2008 taken after applying the advanced seo methods taught in this ebook has my site at #1 and #2.  
 Methods I teach do work. Feel free to email this ebook to business friends.

**Note: Google search results are very dynamic. The #1 results may not remain as shown depending on when you read this ebook.**

## **I. CMS Tutorial | Introduction to CMS Web Design**

This tutorial for custom CMS web design, or a Content Management System, is written based on my system of CMS Web Design that creates advanced code in xhtml with css. The code is to the latest forward looking standards so that sites done in this system will display well now and for many years into the future.

Readers using another CMS web design system will likely gain benefits in the sections on Do It Yourself SEO, or DIY Search Engine Optimization. A site created with static pages may be optimized with these methods, also.

### **1. CMS Overview**

A CMS web design, or Content Management System, is a method of creating website pages without knowing how to program html code. These systems consist of software with 100-1000 files installed on your server that automate the process of easily creating new pages. Users have an admin backend panel where they can add, edit, or delete content as plain text, plus upload photographs or graphics to include on their pages.

Custom CMS software may be purchased from a commercial company, or site owners may choose free open source software. Each may require significant modification to create a truly custom website look, and very few use the latest code standards to xhtml and css. Older html, especially when using "tables for layout", will result in bloated code or may have display problems with cross browser compatibility compared to xhtml with css.

### **2. Features and Benefits**

The CMS package designs I offer are to the latest standards in xhtml with css, so pages will load faster and the design will function well now and into the future. Once the custom graphics are created and the software is installed and customized, and then the initial website is launched, site owners may take over full control of their website to manage content.

Unlike commercial standard cms templates that are sold to the public, a custom CMS web design system from a web developer and graphics artist like me will have a unique look. Technically every website design is a template because each page on the site requires a consistent look.

### **3. Content and Presentation**

All websites have the two basic elements of content and presentation. Content is the code created for text and graphics that are displayed on your site. Presentation is the page layout, font sizes and color, and other controls for how that content is displayed. In older web design methods the content and presentation of each page is in a single html file.

The recommended best practices for web design separate content and presentation, and the worldwide code authority strongly recommends xhtml in favor over html. By having the xhtml code for content in one file and then the style sheet in a separate css (cascading style sheet) file, page code is streamlined and will load faster, plus improve your web design for search engine indexing. My custom CMS web designs use this technique. Once the style sheet loads into a visitor's browser, to view each new page the browser only needs to access the xhtml.

### **4. XHTML with CSS and Zero Errors**

Many web developers ignore creating websites with zero or near zero errors. Major corporations including some search engines have 100's of code errors on their home page. Visitors to those sites have different operating systems and most will have one of the 5 major browsers, so code errors may cause those pages to break apart with text appearing over graphics, or some items out of place.

Without documenting web design strategy and details here, it is enough to know that quality code and cross-browser testing can eliminate problems having a website that displays well no matter what system is used by the visitor. Some advanced multimedia content may require deprecated code, so near zero errors may be the best a web designer can accomplish if advanced web design features are included in the page.

For pages created in the CMS web design system that I offer, pages of text content and photos or graphics will have zero errors and display well on all browsers. The exception may be for typo errors or advanced features that the customer chooses to install that depend on external code, scripts, or links. In most cases these can be resolved with the assistance of a professional web developer, so clients are welcome to ask for assistance.

## **5. Dynamic vs Static Pages**

The difference between dynamic versus static web design pages is how content is presented to the browser as the visitor navigates to a page on your site. A web design built with static pages has files in html or xhtml, and perhaps a style sheet, that are stored on the server. The browser accesses those files and the page displays. Static pages are also called client side generated pages meaning they display using just the browser software on your pc.

A web design using a dynamic technique of page creation has contents stored in a database on the website server that are assembled and displayed at the moment a page is accessed. Each page in the custom CMS web design system is dynamically generated each time a person requests that page. Dynamic pages are also called server side generated pages, and the technical setup issues commands to take a custom cms web design template and fill-in the content for the requested page.

This allows clients to create content in plain text that the CMS system will dynamically assemble to generate the page web design as xhtml with css. The conversion of your plain text to xhtml takes place without the site owner learning custom website design using xhtml code.

## **6. SEO Overview**

SEO, or Search Engine Optimization, is the method of creating content that is favorable to search engines which in turn can improve ranking in search engine search results. SEO is either on-page within your design, or off-page with promotional methods outside your site such as backlinks from sites to yours. The backlinks are like votes, so for each vote search engines find, the ranking of your site may be improved.

For the CMS system of web design and the purposes of this tutorial, the focus will be on-page factors that affect search engine optimization. To have a quality design you must include key elements for seo that are often missing in many sites. You need to research the key words that define your business to discover what people actually place in search boxes looking for a website like yours. You need to write optimized text for those key words about your product or service. Finally, content preparation requires utilizing best practices for search engine optimization.

These subjects for search engine optimization are presented in more detail later. Clients for my CMS web design services will get SEO advice and personal evaluation during the course of their project. The CMS software used in my designs has been highly customized by me to make the process of on-page optimization easier. In addition, free software resources are introduced to help streamline the time required to optimize page content. More cms web design pdf and video tutorials will be released, too.

## **7. Search Engine Friendly URLs**

Search engines evaluate many aspects of on-page content when ranking pages and the level of importance as compared to other similar websites online. A search engine friendly URL refers to the page names that a web designer assigns to each page they create. For example, on my site I have an overview of my CMS web design services and the page file name is cms-web-design-services.html.

The dashes are "invisible" to search engines, so they view that name as "cms web design services", thus the page name is optimized to highlight key words that describe the page content. The ranking value of search engine friendly URLs is nominal, yet each subtle website design seo strategy that is used in creating pages of your cms web design will begin to add up, so they should be used.

Note: Underscores instead of dashes in page file names are okay, too.

An example of an unfriendly URL would be something like page1.html where the page name has nothing to do with introducing the page content. Some content management systems create extremely long file names with extraneous code and special characters that include question marks or ampersands. Contrary to the opinion of some web developers, these odd file names are still easily indexed by search engines.

Part of the revised programming of custom cms web design systems that I provide add the ability to add search engine friendly URLs during the page edit and creation phase. Other search engine friendly code that does not appear to visitors is programmed in for easy entry in plain text, also. Unlike URLs, this code is extremely important for search engine optimization.

Finally, an advantage of search engine friendly URLs in a custom cms web design is that they provide a clue to visitors about the page content, also. As a person hovers their mouse over a link on your page, the browser status bar at the bottom of their screen displays the destination file name. Using key words to describe the target page content in the file name makes the site more user friendly.

## **8. Realistic Expectations**

We all have competition. People searching for your product or service often have their choice of millions of page results. When competing against millions of results, realistic expectations of appearing at or near the top in search engine results pages are necessary. Only one website listing can be #1 on page one.

Search Engine Optimization depends on satisfying the 100's of algorithms used by major search engines to determine your website content. The number could actually be 1000's of factors that search engine computers evaluate to compare your site to others. These factors are top secret and constantly reviewed or changed often, so the rules for optimizing your custom cms web design may change, also.

In general, natural methods of optimized web page design with original quality content will attract search engines for years to come. Larger sites that contain original quality content will be favored over small sites, and certainly a one page website would find it extremely difficult to be on page one of any search engine.

My advice to clients is expecting a new site to take 3-6 months or perhaps a year or more to appear in the top search engines. I never guarantee page one to anyone, yet my clients happily report that based on my advice it does happen. The algorithms are too complicated and constantly changing, so unless your business is very unique without any competition, the sites listed on page one have a quality web design and made a conscious search engine optimization effort to achieve that ranking.

Therefore, search engine optimization is an ongoing strategy. Once optimized, a website page will still need periodic review and evaluation to improve the text content and technical aspects necessary for seo.

## **II. CMS Tutorial | Content Management Systems**

### **1. Simple**

A simple content management system web design will provide text content plus graphics to present your product or service. The site graphics may be simple or nearly non-existent and still allow you to successfully compete online. With a simple cms, or content management system, most site owners will be able to take over and manage their site without requiring any further assistance from the original cms web design developer.

Your choice for a simple content management system allows for upgrading the content to a more complex web design in the future. The cost for adding advanced features like e-commerce or flash presentations will be similar to a complex cms web design as your business changes or grows.

### **2. Complex**

A complex content management system of web design provides text content plus graphics, and includes advanced features to present your product or service. Examples of advanced features include multimedia like audio or video, order pages in online stores, e-commerce options, secure log-in pages, custom contact forms, flash slide shows, advanced photo galleries, and scripts.

For most of the advanced options a novice site owner of a content management system website will not have the web design experience or skills to add the named advanced features, and still maintain the quality and integrity of the code used in their cms website design.

An experienced web developer can design the custom code needed to add advanced features, so the cost will be more than a standard installation. My advice is planning ahead by doing a website layout on paper and specifying all the web design features you want whether immediate or future.

Once installed, the CMS web design system I create allows for adding advanced features in the future, so additions may be created as budget or business circumstances require. An exception may be online stores with a large number of products where I may recommend a full e-commerce cms.

### **3. Designing for People**

Perhaps the most dangerous strategy when creating a website design optimized for search engines is over-optimizing the content. Designing for people first by adding original quality content often should be the first priority in any web design. Search engines will recognize quality, so avoid overloading page content with key words to the point that it doesn't make sense to real people.

There are also unnatural methods of optimizing a website for fast results, yet most of those web design techniques use deceptive means with short term results. The real secret is still add original quality content often.

Finally, people require usability. If your site exceeds 100 pages like my commercial site, my advice is adding a custom search function for people to use for finding information faster. In addition, a sitemap on large websites rarely ranks well in search engines, yet a concise page of key content listing all pages on your site organized in one page may help keep people on your site longer.

### **4. Designing for Search Engines**

The work performed by search engines indexing websites is done by crawlers called bots. These are not human beings but supercomputers that visit websites and access the code used to create the pages. The crawlers are robotic, so they cannot view aesthetics like a gorgeous website design or stunning photos. All they use to index your content and determine your site theme is in the web design programming code.

Certainly your text content is included in the code, yet a well designed site will also include code aimed at search engines and not viewed by human visitors. The META code identifies key elements of your site and includes "description" and "keywords". Other tags and strategies of using keywords in hyperlinks and placing emphasis on key words using bold text are additional clues that search engines use. Keywords or phrases used in any hyperlinks are another search engine optimization web design strategy.

These will be reviewed in greater detail in the full SEO section of the tutorial. For now it's enough to know that search engines only view code, so providing clues as described will help search engines crawl your site.

### **III. CMS Tutorial | Requirements to Get Online**

#### **1. Site Design and Content**

To get a new website online, the first requirements are the site design and content to present to visitors. While this may be stating the obvious, these basics require a degree of planning to ensure a quality cms web design. The site design should match your corporate image for printed marketing materials and advertising. Your logo and color scheme should likewise be consistent when viewed by prospects.

Content includes text about your business and products or services, plus graphics or photographs to help illustrate your marketing message. Writing for a website is different than print work. Grammar and spelling are critical, yet the writing style should be appropriate for the audience without being too technical, yet not so simply stated as to insult a visitor's intelligence.

More about the planning and preparation of custom cms web design content will be discussed in more detail later in this tutorial.

#### **2. Domain Name**

Acquiring a domain name is the next requirement for getting your cms website online. A www domain name that matches your company name is often the first choice, yet a perfect match is not necessary if what you want is already taken. Using keywords in the domain name much like the page file naming mentioned earlier does add some seo benefits.

In my case the commercial site is my name, and has not limited my ability to achieve search rankings at #1 on page one. For other domain name options consider product or service related words for the www name, or perhaps geography if your business is strictly local.

Finally, for credibility and to establish trust with search engines always register your domain for 5 years, or more. Your cost for registration should not exceed \$10 USD per year, so a longer registration means you are serious about being online and the \$50 investment is modest.

A one-year registration is typical of scam sites. Go for 5 to avoid suspicion.

### **3. Monthly Hosting**

Most small business owners do not have a dedicated in-house server, so you will need to purchase monthly hosting from a service provider. The monthly hosting pays for the storage space that will contain your web design files and graphics to make your website available to the public.

Your cost for hosting should be much less than \$10 USD per month, and less than \$5 per month is realistic. You may want to consider prepaying for 12 months or 24 months to avoid the monthly fee being deducted from your credit card or bank account. Most hosting providers include add-on features like multiple email accounts and MySQL at no additional charge.

### **4. CMS Software Engine**

Creating a custom CMS web design requires the CMS software engine that automates content creation. For a small business owner, the cost of commercial software and recurring future upgrades is usually unnecessary. Not many could afford to hire a programmer for a custom CMS web design system programmed from scratch because with as many as 1000 files to run the system the cost would be exorbitant.

Instead, open source options are my choice. Open source software is usually a project developed by a group of software engineers who make the program available for free. The package is released under a limited GNU license making it free to use or modify without any cost or recurring fees. From experience, most have a default installation that creates a website that functions without any advanced aesthetics, so custom work is required for a truly unique custom cms web design.

The analogy that I like is comparing different CMS software packages to Swiss Army knives. A knife with 100 gadgets and functions will be overkill for most users. Likewise, most CMS systems are extremely complicated while trying to be everything for anyone. The result is a steep learning curve. Fortunately, the system that I offer is much simpler and allows upgrading by adding advanced features instead of having a very complicated system to begin.

Finally, many CMS systems for web design use older code including table structure for layout which results in defective or bloated code. The xhtml

with css custom cms web designs offered to my clients are streamlined for faster loading to create perfect code when adding plain text and photo or graphic content. Multimedia may be an exception, yet with assistance even that may be perfect. In addition, software enhancements have been done to allow owners to easily create seo friendly page names with all content and seo META entered from just one page in the admin backend section.

## **5. MySQL Database**

As a dynamic versus static page package, the CMS web design system requires a MySQL database. This is a hosting option offered by nearly all hosting providers, and allows server side storage of all content in database format. When a visitor accesses a page on your site the software instantly inserts the template and styling code for that page and the database serves the unique cms web design content to fill in the rest.

The only technical requirement for site owners when it comes to the MySQL database is accessing their hosting control panel to perform a regular backup of the database files. This is often a matter of logging in to your hosting service and navigating to the MySQL database section and selecting a "backup" button. In the unlikely event of a server crash the database may be recovered and reinstalled instantly.

## **IV. CMS Tutorial | Content and Responsibility**

### **1. Web Designer**

The web designer provides the technical expertise to install the cms system, create the database, and modify the template system to create a custom look for the client. In addition, most will create custom graphics to complete the look to match an existing corporate color scheme including the company logo.

While a CMS system may seem like an "out of the box" solution, an experienced web developer who knows code and has graphics experience can do in 20-30 hours what might take the average person 200-300 hours. Once the custom cms web design is installed and launched, most small business owners want the ability to add or edit new content without going through the trial and error of design, programming, and installation. As far as content and responsibility, the web designer prepares the blank

website design to have it ready to accept the content for the original launch, and ease of use for adding new content in the future. In my case I work closely with clients during content preparation to advise on best practices including search engine optimization of each page, and will load a reasonable number of pages for the initial launch. The seo lessons will prepare the client for do-it-yourself web design after the website launch.

## **2. Customer Provided**

Customer provided content includes text, graphics, and marketing materials that help define their market. The client is the expert for their business and how they want it presented to their customers and website visitors. For this reason, the client must create the text content for each page of their site. For the CMS web design system I use, this must be content written in plain text, and I recommend NotePad.

Other word processors insert special characters unique to their software that can create surprise output in pages created by the customer. Using NotePad and avoiding extra spaces or line breaks helps ensure the final page will look as intended.

Special note: Customers for my CMS system will receive editor support for text content with advice for revisions to help enhance the presentation to visitors and search engines. My advice is beware of any web developer who accepts your content without providing feedback about improving site performance. Writing for the web is different than face to face presentations or written proposals, so changes will be inevitable. Anyone willing to just plug in what you wrote may not be your best choice for a web designer.

For graphics like the company logo or photographs of the building or products, low resolution versions are acceptable. If high resolution versions of photos are available, provide those as the web designer will be able to optimize the file size for best viewing and reasonable load time. If like me the designer is a web design code programmer and graphic artist, also, high resolution photos allow for creating artwork for print. Low resolution photos will not work in print artwork because while they look fine viewed on a computer screen the output printed on paper will be poor quality.

Client provided content may be emailed to me as an attachment, or sent by regular mail on a CD or DVD disk if the file size is too large to email.

### **3. Project Benchmarks**

Content and responsibility for project benchmarks depends on good communication between the customer and designer. My advice is allowing flexibility in the scheduled completion of each phase between acceptance and project launch. From experience, the web design content needed from the client is often delayed due to day to day responsibilities of running a business. Often the owner cannot delegate documenting content, so work is their priority and site content is done after hours.

However, target timeframes for the web design from beginning to end should be established up front. In general, a simple CMS web design that I create should be online within 4 weeks, or sooner depending on response time by the client providing content. A site with advanced features may take up to 2 weeks longer. As content for the project design nears completion and is finally ready to go, the last phase of launching the custom cms web design should be done within 24-48 hours.

With client cooperation providing necessary content and feedback on action items, the 4-6 week timeframe is very realistic.

## **V. CMS Tutorial | Steps in Project Design**

### **1. Logo and Color Scheme**

The first step in the project design is a vision of "the look" of the cms web design. The customer must provide a logo if they have one, and define the general color scheme they want. If a new logo is required for my clients, a simple stylized logo is provided at no charge. A complex logo may require a design fee, and could delay the estimated time to web design completion.

### **2. Define Site Structure**

The second step is to define the custom cms web design site structure. An outline of the page names or sections of content should be written out to assist the designer in further defining "the look". Navigation and usability to assist visitors in exploring your website will be considered, also.

This is the time to plan ahead. Consider your business model and possible new products or services for future release as part of the web design plan.

### **3. CMS Template Layout and "the Look"**

From the logo, color scheme, and site structure the next step is to create a mockup of the home page. I use the same technique as many web developers and begin by doing a layout on paper. Next I use a graphics program to create a JPG screenshot of the approximate look. The client can then review the JPG for approval or suggestions for change until "the look" is approved. No custom cms template coding is done at this point.

### **4. Customize Software**

With the look and site structure approved, the next step is to begin coding to customize the software. The custom cms template and custom style sheet for the home page will be created and placed on a demo page of my website. Other cms web designers may have to install your cms system on your server first.

The advantage of an offsite demo of the cms web design for existing sites being converted to a cms is minimal downtime of your live website during development. The custom cms web design system that I offer is practical for retrofit and redesign of an existing site as well as new websites.

### **5. Create dBase for CMS**

The first step in preparing the hosting server storage for the new content management system web design is to create the MySQL database for the website. This requires access to the customer's hosting account to create the database and then retrieve the host location, user name, and password needed for the technical installation. Clients with experience performing a MySQL setup could provide the key information to their web developer.

### **6. Prepare Text Content**

At this point the cms web design text content will have been created in the correct plain text format, and provided by the client for entering into the cms system. Detailed instructions for the format of this text content is included below in the section on Customer Site Management. The web designer reviews the content and prepares it for copy and paste into the CMS web design system. Preparation should include the seo strategies by now, also.

## **7. Do Technical Installation**

The technical installation by the web designer involves uploading all files to the server and activating the system by running an installation script. Once the installation is verified as successful, the installation files are removed from the server. Removal of installation files used to be necessary for security reasons years ago, and I continue removing these as best practice anyway. That helps eliminate the possibility of a person running the installation again and perhaps affecting the integrity of the site.

Site owners with a different custom CMS web design system than offered to my clients may need an alternate procedure for installation and security.

## **8. Do Admin Customization**

Once raw cms system files are uploaded, installed, and confirmed as successful, the next step is to do admin customization. The backend of the admin section is used to add, edit, or delete content, and requires input of basic data about the site owner and company.

In addition, for my customers the default settings for templates and style sheets and the overall site structure are changed to match the custom cms web design I created. Other readers with another system should refer to help files or online forums to learn customization. Without experience, the task of customizing a cms template could take 2-300 hours, or more.

For my custom cms web design solution, the new template and style sheet are then uploaded. In addition, some default functions are replaced or deactivated based on the new design. Finally, the search engine optimization preprogrammed options are installed that allow clients to optimize their site as new pages are added.

## **9. Load Customer Pages**

Finally, the text content provided by the customer is used to load customer pages into the new cms web design system. In general, my process is doing the home page first and then the rest of the files in alphabetical order. Graphics or photographs are uploaded as necessary.

The time required to have the new site ready for launch varies. The cms web design system allows publishing pages as draft copies, so after testing the home page, all are held as drafts until the last one is done. When all pages are entered an option allows changing the status of all pages from draft to live, and with a single click the entire website is launched ready for viewing.

Details for the admin log-in are provided to the client and they can use their custom tutorials to begin a tour of the admin backend and explore the tools for adding new site content.

## **VI. CMS Tutorial | Website Structure or Outline**

### **1. Small Site (1-20 pages)**

A small site will have difficulty attracting search engines unless it serves a very unique niche with little competition, yet having a blog or using a CMS web design allows adding new content easily. While still small the navigation can be simple with all links listed in the left side column. A horizontal set of links below the header to key sections of the site would be optional. A sitemap and search functions would be unnecessary.

For credibility, I always recommend full disclosure of contact information in the footer of each page. Visitors who print a page with the intention of calling days later may call your competition if they included their phone number on every page and you don't. Search engines reward sites with full contact information because unscrupulous site owners or scam artists prefer to remain anonymous. If your business serves international clients include your country after the postal code.

### **2. Medium Site (21-99 pages)**

A medium site structure can include key navigation across the top or down the left side column, or both. With a medium site a "tree structure" of navigation should be considered. One of the most frequent complaints among internet users is web designs that do not provide the ability to easily navigate and find information quickly. The tree structure is like branches where the first link to a main section leads to a page offering an overview with links to options within that topic. The home page is the trunk while main branches lead to smaller branches that are all topic related.

My advice for a medium site cms web design is having a sitemap, providing a search function, and having full contact information disclosed in the footer of every page for the reasons stated under Small Site above.

### **3. Large Site (100+ pages)**

Once your website grows to 100 pages, or more, it's time to give serious attention to web design usability. A site cannot generate revenue if you have all the answers about a product or service and a visitor becomes lost or frustrated and then leaves to the next site listed in their search results. While your website is a familiar friend, each visitor is encountering different web design layouts constantly, so providing immediate clues about what you offer and clear website navigation to find answers is critical.

A web design with side columns and graphic links or info boxes highlighting related information available on your site will help, and keeping a simple layout without confusing clutter is an absolute necessity. My web design advice is having a search function on every page. With my site now over 400 pages and growing, I added a Google custom search function on every page of the main site, blog, and podcast. The custom Google search engine can be setup to search just your website.

Next, create a single page sitemap with a link on each page of your site to allow visitors a quick overview of all you offer. In addition, my advice is getting software to create xml and txt versions of sitemaps to upload to the root directory of your site. The xml is for Google and the txt is for Yahoo and all others. Find out how at [www.jimdegerstrom.com/reports.html](http://www.jimdegerstrom.com/reports.html).

Finally, consider the tree structure reviewed above for a medium sized website. Plan ahead for how you will adjust the navigation structure as your site grows to avoid the tree looking like a jungle. Keeping people on your site and eventually converting them to buyers depends on a web design that makes information easy to find and quickly understand.

Provide full contact information disclosed in the footer of every page for the reasons stated under Small Site above.

Previous advice bears repeating. This is the time to plan ahead for your custom cms web design. Consider your business model and possible new products or services for future release as part of the web design plan.

## **VII. CMS Tutorial | Example Structure**

### **1. My Site (400+ pages)**

My commercial site includes a main section, a web design and related advice blog, and a podcast for web design related topics only. With my business being web design and matching graphic artwork for small business owners, I created top navigation links to these main subjects, plus extra links for ordering information and general information. The essence of what I do, price and ordering information, and contact information with an email link is summarized in the horizontal top navigation.

I like the analogy of visiting a place of business and the entrance is like the home page of a website. As you enter, a few more doors (or website links) lead to main topics of what is being offered, and entering those provides detailed options about the subject of interest. This funnel approach to leading visitors to what they want is the best one can do to simulate a person giving a website guided tour.

### **2. Main Site**

The main site structure includes horizontal navigation links to the main topics of Small Business, Web Design, and Graphic Art, with customer service links to Order Info and General Info. In addition, the top navigation links to the advice blog and podcast, and then an email link. The home page has visual clues that emphasize my core business which is custom web design, and my name, address, and phone number are in the footer of every page.

For custom cms web design project clients, plan the navigation to be as simple as possible for usability. Too many links may cause confusion, and from experience I found out that when I converted my site to cms and eliminated the 30+ links down the left hand column, visitors stay longer and visit more pages.

### **3. Blog and Podcast**

The blog and podcast of my commercial site are each placed in separate subdirectories off the main website. This site structure keeps the content of each post integrated as part of the overall site web design. Having these

hosted on a free service, or using subdomains, would make your blog or podcast the equivalent of a separate website. Part of the strategy of having a consistent theme throughout your site and adding original quality content often is enhanced by having an integrated blog that adds to the size with content that complements your business or service.

A podcast uses the same structure as a blog. The only difference is the audio format and content of the podcast with show notes and the audio player in each post. My advice emphasizes having at least a blog. The advantage blog posts bring for attracting search engine traffic cannot be underestimated, yet the discipline to post on a regular basis can be the downfall. 95% of small business owners do not have blogs. Of those that start one, 75% quit within 3 months. Of those that last, nearly half decline their activity to posting every two or three months.

Small business clients should not agree to have a blog unless they are committed to make at least one post a month. Daily posts are impractical unless you have a lot of free time, yet weekly with 1-2 a week is ideal.

## **VIII. CMS Tutorial | Planning the Web Design**

### **1. The Master Plan for Planning the Web Design**

When I am planning the web design for a new customer, my first layout is done with pencil and paper. Most will have a top header, navigation links below the header or down the left column, and perhaps both. The decision to have one side column or two depends on the nature of their business and how their product or service will be presented. I strongly advise customers to include full disclosure of contact information in the footer of every page.

Keep in mind some small business clients have a home-based business, and with a family to consider some are uncomfortable with revealing their home address. In these cases I advise getting a drop box at a UPS store or other service provider, and then use their address as your mailing address, and instead of box number you call it unit number. This avoids concerns about family security, and these businesses usually allow using their street address. Several clients were very pleased using this method. Note: For USA customers, you cannot use this method with a US Postal Service box.

To help in the decision about one side column or two in your cms web design, consider the points made earlier about navigation and ease of use. If having two side columns does not add unnecessary clutter and will enhance the usability of your website, by all means use two. If you expect to use large photographs or graphics on many of your pages in the web design, try planning for just one side column.

## **2. Structure of Redesign of my Site**

SEO is meaningless without a foundation. For visitors interested in the advanced search engine optimization techniques, a solid web design is necessary to attract search engines. My success with Google page one results including #1 in listings explains why I use my site as an example.

One of the key elements for search engine optimization is the page title for each page on your website. This is the text that appears at the top of the visitor's browser, and becomes the "name" under bookmarks if they add it to favorites. More about the title and how it is entered into the custom cms system will be presented in greater detail later in this tutorial. For now the lesson is very general as an example to consider when planning site structure.

With the conversion of my commercial site web design to a cms, content management system, I considered the number of pages and how to present an overview with the least number of links. As a result, the structure of the redesign of my main site has 5 sections: Small Business, Web Design, Graphic Art, Order Info, and General Info. To better define pages within each category for people and search engines, I used the section name followed by a vertical line and then the title of each page.

As an example, the page for custom cms web design services has the title using the section prefix, vertical line, and then page name as follows: Web Design | Custom CMS Web Design. This title structure is not necessary for very small websites, yet search engines recognize the vertical line as a separator and index the text to the left of the vertical line as a category or section. Text to the right of the vertical line defines the topic of just that one page within that section. This page title method helps visitors understand the structure, and assists search engines to index your content.

### **3. Page Outline and Template to Define Each Page**

From the pencil sketch of the web design outline and customer feedback, the next step is to begin coding in xhtml and css to create a custom cms template to define each page. I still code from scratch using NotePad, so the custom cms web design template and custom style sheet css files are done line by line. Hand coding web designs for more than 12 years allows me to recognize code errors to maintain quality cms web design templates.

The word template is offensive to some people. Keep in mind that all websites are actually templates if you want to present a consistent look and corporate image from page to page. The difference between a commercial template and a custom designed template is that you are assured of having a unique look for your small business website. By hand coding and then checking for valid code, you are assured of a unique look and high quality design.

Prepackaged templates cannot compete with the unique look of a truly custom cms web design. For readers of this ebook who are not one of my customers, my advice is using the services of a graphics artist like me if you choose do-it-yourself. A custom color scheme and corporate image helps create a memorable brand and market identify. The price of having professional assistance means you are more likely to create a favorable first impression and keep visitors on your site.

For my cms web design clients, the template of the home page will be done first. Think of the header, side columns, and footer like a picture frame, and then the unique content for each page fills in the blank space surrounded by this frame. Unlike prepackaged commercial templates, my designs allow for multiple looks with custom side columns, so for larger projects your website design may have 5-10 custom templates.

For my site which is over 400 pages as of the date this ebook was written, I wrote the code for just 5 custom designed templates on the initial launch, and have no immediate plans to expand. Consider your site structure, and minimize any confusion with too many unique looks. The nature of your business will determine the right number.

Visitors will want to navigate your site quickly to find information, so it is critical to keep it simple without confusing them with too many choices.

#### **4. Sample Text File in Preparation for Writing Content**

Here is the format used and then a sample text file used in preparation for writing plain text content in NotePad to create new cms web design pages:

TITLE:  
DESCRIPTION:  
KEYWORDS:  
(Headline)  
(Paragraphs of text)

The title, description, and keywords provide content for search engines which is included in the code for each page. This data is entered as plain text and automatically converted to xhtml for pages that you create and publish. Search engines do not view what a visitor sees on a computer monitor. Search engines only access the code used to create that page. The (headline) and (paragraphs of text) in the format above are the text content that will appear on your page.

Normally I create a file name for the page and type it above the TITLE to copy and paste later. Note that I do use all CAPS in the outline for writing content shown above for TITLE, DESCRIPTION, and KEYWORDS. When you finish writing a page of content, the text after the colon is all you copy and paste into the cms content management system edit box. The parts that are all caps are not part of the content you copy and paste, so I use all caps as a visual clue only.

For my home page, the text file prepared during the initial site conversion to a cms web design and launch looked like this except I only included the heading and first two paragraphs of text in this example which continues on the following page:

index.html

TITLE: Small Business Web Design Services Introduction  
DESCRIPTION: Custom web design services of small business websites including CMS is my primary business plus matching graphics.  
KEYWORDS: web design, small business, website, blog, cms, website design, blogger, custom web design, graphic art, small business website, search engine optimization, seo

## Small Business Web Design Services Introduction

Custom web design services of small business websites including CMS is my primary business plus matching graphics. This site is a Content Management System web design created in XHTML with CSS in a tableless design that allows adding content in an edit box without learning website code. Advice for search engine optimization, or SEO, is included in my pricing for website design.

Matching web design graphics for websites or printed marketing materials are secondary to small business web design services. However, as an art school graduate, I can help with website graphics or artwork for print...

== == End of example of text content prepared for the index page == ==

The file name should be 50 characters, or less, even though the maximum allowed is 200. The "index.html" in this example is the default for the home page, but longer file names with multiple words should be separated with dashes. For example, the cms custom web design page is named custom-web-design-services.html. Note that file names for pages and graphics or photographs should ALL be written as lower case only.

Next is the title and the length should be 70 characters, or less. Notice the TITLE does not have the vertical line separator. That's because it's the home page and not a section. Almost without exception, all other pages on my site use the vertical line section separator. Again, the vertical separator is not mandatory, and is usually used on larger sites. The title of each page is similar to the headline in a newspaper announcing content being presented. The title needs to be typed in upper and lower case as shown.

Next is the page description and the recommended limit is 155 characters, or less. This must be a complete sentence. Often the description is used by Google as an introduction to your page in their search results, so advice for search engine optimization of this and all of your text content will be explained in the seo section of this ebook.

The keywords are a list of words relative to the content on that page, and my advice is having a list with a total of 200 characters, or less. Each key word or phrase in your list of keywords MUST appear on that page. Note that Google ignores keywords, yet Yahoo and others still use them to

determine the theme of a given web page. Later in the section about seo I will teach search engine optimization strategy. For now, I'll mention that your keywords should be listed in descending order of importance beginning with the most important word or phrase that describes the theme of a given page.

Finally, the page heading and first two paragraphs of text are shown. Readers may want to note that the identical sentence used in the DESCRIPTION above (which only search engines access), is also used word for word in the first paragraph of my home page (for visitors to view). Again, this is not mandatory, yet it is a suggestion I make. You go through the trouble of creating the perfect description for search engines, so it makes sense to include that sentence in the page text content for people.

Though your keywords are important to Yahoo and ignored by Google, each key word or phrase in your list of keywords must appear on that page. This eliminates the temptation to have 200 words in the list which many web designers do, yet that is an obsolete practice that results in irrelevant introduction to a given page. A credible list will include only words on that page. It makes sense to use those same keywords in your description, and then have that sentence in the text content for credibility.

## **IX. CMS Tutorial | Tips for Writing Web Content**

### **1. Web Writing and Neutral Point of View**

The web design concept of web content writing from a Neutral Point of View, or NPOV, is a method of presenting information that is accurate and without prejudice. Facts are not based on guesswork or personal opinion, so being credible in any web design depends on writing from a NPOV.

Can a website owner actually write from a NPOV? Probably not. That style of writing is reserved for news reports, textbooks, an encyclopedia, or similar content presented by an authority responsible for providing factual evidence. The idea of being credible with your website content means writing without exaggeration, so understanding NPOV for web design will help towards that goal. Avoid adjectives such as "best" or "greatest" and any others that imply a reputation that you cannot substantiate.

Search engines analyze the meaning of content and recognize quality.

Site visitors will recognize gross exaggeration about your product or service and may dismiss the validity of what you offer. Be as objective as possible, and perhaps cite customer testimonials as examples of how others perceive your business. Quoting a matter of fact opinion from a client with positive feedback about a product or service may help add credibility, also.

## **2. Formal Writing and Web Writing Compared**

The style of writing website content is different from formal writing, yet while a more informal style is acceptable, do not overlook proper grammar and spelling. Just as exaggeration will strike a nerve with your visitors, spelling or grammatical errors jump out and may affect their opinion about your business.

Website content should be designed to quickly make key points in headlines, subheadings, and the first few words of each paragraph. Readers have dozens of sites to visit similar to yours, so they will only glance through the landing page before deciding to read your details. Unlike formal writing, keep your paragraphs short and break up longer paragraphs into 3-4 sentences each.

Your website visitors have a need, or problem, and they are looking for information, a solution. Consider this concise outline for writing information to keep content relevant by stating a problem, resolution, and conclusion. Keep this simple three-word outline in mind as you write. Describe a situation or need (problem) that a person might encounter, the action plan (resolution) using your product or service, and the happy ending (results) or benefits you provide in that situation.

Finally, bullet lists are another method of providing concise content that attracts reader attention. A list of bullets that describe benefits or features will capture readers better than long narratives.

## **3. Reaching Visitors and Search Engines**

Reaching visitors and search engines requires marketing. Maintain a consistent brand and corporate image in each place where your company is viewed or promoted whether in print or online. Your www domain should be included on every printed piece designed for your company including

advertising. A business servicing a local market can help maximize search traffic by including geographical key words in their web design text content.

Whether you have an established site or launch a new site, search engines will find you eventually. The quality of your code, text content, and overall web design will attract search engines. The following point is appropriate for human visitors as well as search engines.

Once they reach your website, they need a reason to stay. My advice to succeed online is “add original quality content often”. Engaging visitors with quality content helps keep them on your site. Adding new original content often gives them a reason to return. Few will buy on the first visit, so reaching them depends on a call to action that gently solves a problem.

Content is king is an overused expression, and while true, I prefer "Adding original quality content often is king" because even with original quality content on a site that never gets changed or updated that website cannot stay on top. Visitors, people and search engines, prefer sites that are up to date providing new solutions.

To notify search engines of site updates, register for webmaster tools on Google and Yahoo, and then use free sitemap software to generate xml and text versions to store on your server. Visit my commercial site at [www.jimdegerstrom.com/reports.html](http://www.jimdegerstrom.com/reports.html) to download the free PDF "How and Why of Google Sitemaps". After adding new pages to your site use the free software to update the sitemaps and upload them automatically to your server, and then the software has a button to "ping"(or contact) Google and Yahoo to let them know your site was updated.

## **X. CMS Tutorial | Search Engine Optimization**

Learn strategy for do-it-yourself search engine optimization of keywords for a small business web design. SEO consultants charge \$1000's in recurring fees for this same information. With diligence and patience, small business owners can reap the benefits by learning these basics for optimizing their website. Your only investment is your time.

SEO, or search engine optimization, is simply the strategy of inserting key words about your business in the content of each page without overdoing it. Search engines rank your theme and importance based on how often those

words appear on a given page and throughout the website. Most beginners feel they can knock out web page content in an hour, or less, yet web design methods of optimizing the page as taught here can take several additional hours once the first draft is written.

## **1. Key SEO Factors in Web Design**

Key words and key phrases are simply words that accurately describe your business in very specific terms. The secret of keyword success in your web design is avoiding general terms that describe just about any business. For example, in my business stating "Expect professional services when contacting us" could just as well be talking about home construction, banking services, or brain surgery.

By inserting "web design" and stating "Expect professional web design services when contacting us" the text content is very specific for people and search engines to understand exactly what I offer.

Keywords are used in two ways: 1) in the META which is hidden in the XHTML and accessed by search engines to understand the theme of each web page, and 2) in the actual text content of headings and paragraphs that display on your page for visitors to view. Here is the list of key SEO factors in web design that you can control, and brief examples or explanations using my main site home page for reference.

You **MUST** use your keywords in each of these to maximize SEO value.

### **META Title Tag** (70 characters, or less)

Small Business Web Design Services Introduction (summarizes the essence of what I do)

Your page title is the **MOST** important SEO factor on every page. It needs to be different for each, and relative to that individual page with top key words near the beginning. This is not the place for your company name unless you have a brand name that is extremely well known.

### **META Description Tag** (155 characters, or less)

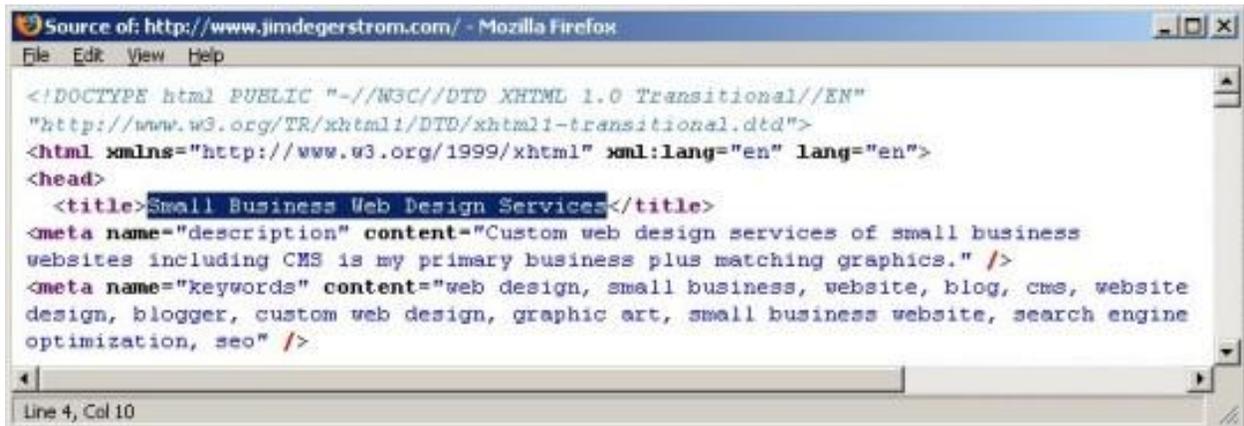
Custom web design services of small business websites including CMS is my primary business plus matching graphics. (A complete sentence with key words near the beginning) This description is often used by Google as the introduction as listed in their search results.

## **META Keywords Tag** (200 characters, or less)

web design, small business, website, blog, cms, website design, blogger, custom web design, graphic art, small business website, search engine optimization, seo

The preceding META code may be viewed while visiting any website page and a screenshot from my home page is inserted below. Right click on a blank area of any web page and then select "View Source" to see the actual code used to create that page. The META will be near the top if used by that designer. Don't be surprised. Key META code is often missing.

Here is a screenshot of META from my home page (smaller than actual size with the Title highlighted):



```
Source of: http://www.jimdegerstrom.com/ - Mozilla Firefox
File Edit View Help
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
<head>
  <title>Small Business Web Design Services</title>
  <meta name="description" content="Custom web design services of small business
websites including CMS is my primary business plus matching graphics." />
  <meta name="Keywords" content="web design, small business, website, blog, cms, website
design, blogger, custom web design, graphic art, small business website, search engine
optimization, seo" />
Line 4, Col 10
```

As we continue, consider headlines or H tags used for web design, and the importance for search engine optimization in your custom cms web design.

## **Heading and Subheading** (Headline) H Tags

Example H1: Small Business Web Design Services Introduction (only ONE H1 headline per page)

Example H2: Quick Links to the Most Popular Design Services (use H2 or smaller H3 tags, also)

The H tags are like newspaper headlines with the H1 being of higher importance, then H2, and then H3 tags which should be used as subheadings relative to the preceding H2 tag. Search engines assign a higher portion of ranking and importance to H tag "Headlines" compared to text content in paragraphs.

## **Alt Attribute for Graphics**

Here is an example: `` (The alt= text is "web design services header" and this is the banner logo, or header, at the top of each of my pages)

The ALT text describes graphics which search engines cannot view, yet the text IS indexed by search engines and provides added keywords to help define each graphic and theme of your page. Use "alt" on every graphic.

## **Hyperlinks in Text Body**

Near the bottom of my home page is a link, or hyperlink, to "web design and graphic art advice". That link is to my blog, and while the word blog is not included in the hyperlink, it does appear nearby. The text in "on-page" links should include keywords. The description "web design and graphic art advice" adds value because key words describe what my blog features for someone considering following that link, and not just the fact it is a blog.

## **Visible Copy of Page Text Content**

The text content used on your page is the obvious choice for placing key words and phrases. You may want to include your unique META description sentence verbatim in the first paragraph of each page. Keep text content from 200-500 words unless it is absolutely necessary to go into more detail on a topic. Use the key words and phrases often in the text, but not to the point that the text becomes senseless reading. A method to easily test for the correct number of times is included later on page 35.

One of the biggest mistakes people make in web design is using nouns like this, that, and it in website content. As the author, you know the intended meaning, but your readers may not share expert knowledge about your topic, so help them out. Try rewording each instance of this, that, and it with more descriptive words. Not many people will be searching in Google using this, that, or it to describe your product or service.

Design for visitors first, not search engines, yet use enough keywords to assist search engines to properly identify your site theme. The proper ratio of key words to total words on each page is called keyword density, and this subject will be discussed later in more detail.

## **File Names Assigned to Pages**

The name you give each page on your website will add some SEO value if you use keywords in that page file name. The home page should always be named "index", and then other pages should have a literal meaning using key words separated by dashes. For example, my link to small business web design services is "web-design-services.html". This has extra value compared to "page2.html".

## **Directory Names if Using Subdirectories**

If you have a blog or podcast, or place images in a subdirectory, use a literal name for the subfolder. In the examples just given, I use my main site domain name followed by /blog, /podcast, and /images.

## **2. Web Design and Keyword Research**

Next, researching keywords for your small business web design may seem daunting at first. Whether you have an established site or you're just getting online with a new web design, start out by making up a list of words that people are likely to put in Google or other search engines to find you. Next, sort that list by placing the MOST important word or phrase at the top of your list. Add each of your key words in descending order of importance.

When you have a list of 10 key words or phrases sorted by importance, it's time to begin the research.

Knowing what potential prospects actually type in search boxes may help you adjust your web design text content to be more people friendly. There are several free online services that match your key word to real data about the frequency of related key phrases in descending order of importance.

Go to a free online service at [www.KeyWordDiscovery.com](http://www.KeyWordDiscovery.com), sign up for a free account, and input your first key word or phrase in the search box. This site has changed their policy for terms of use. You must register first, and then you are allowed 100 searches per day. This should be sufficient for most projects. The search results may provide a few surprises.

View their list of top search phrases, and then compare yours to their top 10. You may see new phrases that you did not consider. Add them to your

list or copy and paste their top 10. Continue with each keyword or phrase and when done you may want to consider revising your list and the order of importance based on what you learned about what people really put in search boxes to find someone like you.

Once you have your final list of keywords and phrases in order of importance, include them in the plain text outline for the META keywords and separate each key word or phrase by a comma and single space.

Next up is keyword density and analysis of key words in your text content.

### **3. Keyword Density and Analysis**

Keyword density and analysis is an important step that should not be taken lightly, so be prepared to do text content edits, retest, and continue to edit to have the best web design possible. Analyzing keyword density is not difficult, yet it is time consuming, so achieving top search results is still hard work.

Let's review the definition of keyword density. Keyword density is a ratio expressed as a percentage from the number of times a keyword or phrase appears on a page compared to the total number of words on that page. If a page has 200 words and one key word appears on that page 10 times, the keyword density is 5%.

Knowing how often you can put a keyword or phrase on a page without being penalized by the search engines for trying to take advantage of them is like finding a magic formula. Insert too few key words in the web design and your competition will be on page one instead of you. I recommend and use free software for the analysis of key words and phrases.

The free software is DupeFreePro at [www.dupefreepro.com/#download](http://www.dupefreepro.com/#download), and their program allows you to easily copy and paste text from your web design and quickly calculate, edit text, and recalculate keyword density.

When asked for their recommended safe keyword density range to use, their advice would be 1.5% to 6.5% and I recommend 4% as the target number. By now you're probably wondering, how you can easily count the total number of words on a page and then figure out the proper ratio or percentage without spending long hours counting words and key words.

Fortunately, DupeFreePro does just that instantly using copy and paste and just a couple of clicks. To do this properly, expect analysis and rewrite of each page to take as much as 2-3 hours, not 2-3 minutes. An illustrated tutorial begins on the next page, and a screencast video is being released soon.

While the target density is 4% to 6.5% on the high end, which would be for the single word or phrase that best represents the theme of your overall website. The second and still very important keyword for a given page should be included a like number of times.

Don't expect to insert every word in your list of keywords at 4% for a given page. In your extended list of key words in descending order they can be used nearer the 1.5% low end to maintain readability. After all, a web page should be designed for visitors first, and search engines will reward pages that read naturally.

Note: ALL keywords in your keyword META should appear somewhere on that page!

Do NOT try to stuff every keyword or phrase for the full 6.5% on every page. Some web designers over-optimize and place excessive key words and while the limits are not published, the experts know your site can be banned for keyword stuffing.

Before we continue with the illustrated demonstration of the DupeFreePro software, consider this very important point about the content of each page.

## **How Google Views Your Website and Web Design**

### **Google First Views Your Entire Website**

This establishes a common theme about your product or service.

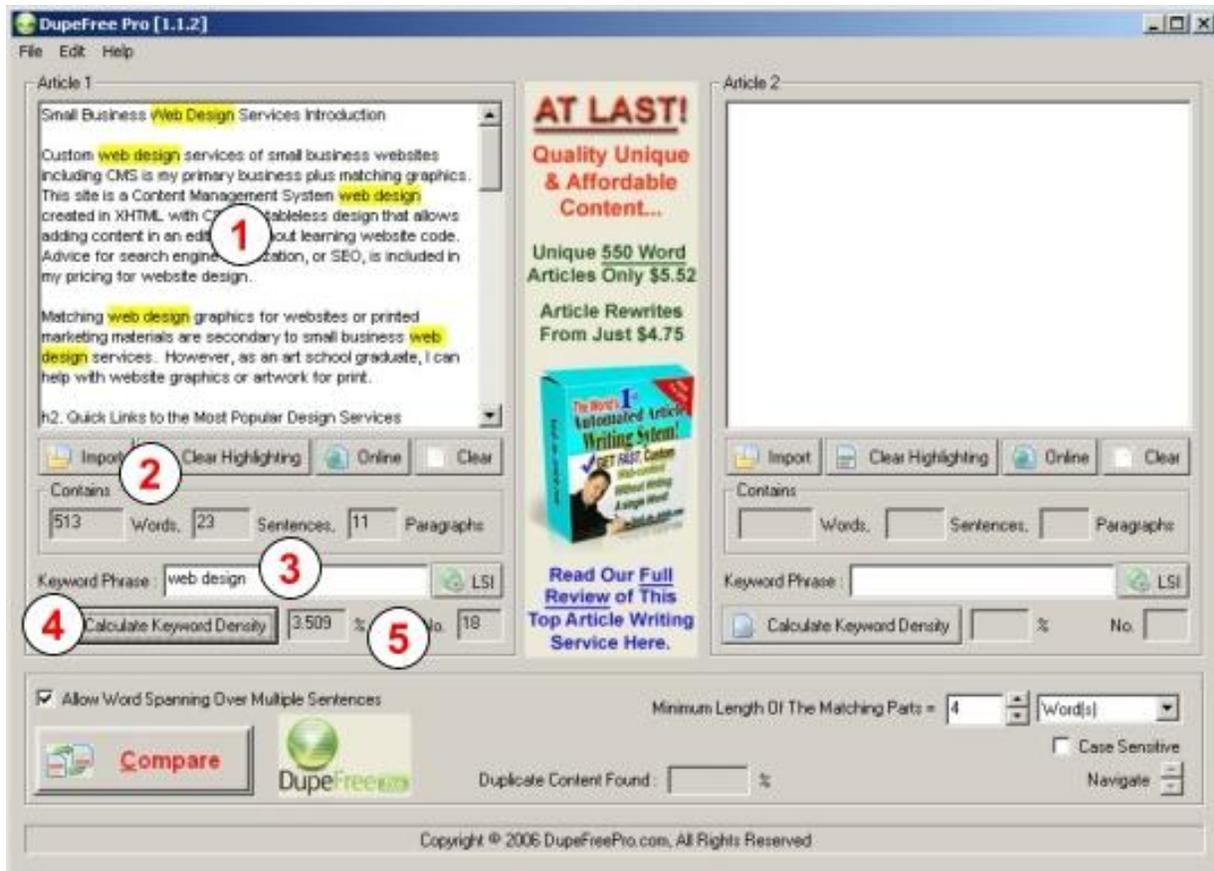
Next, their crawler indexes each page and compares those to other individual pages and the overall theme of your website.

**Each page should cover the top key word or phrase for that page.**

To maximize SEO, do not dilute the theme for an individual page by having text content about off topic subjects, so be consistent.

## 4. Free SEO Analysis Software

Once you download and install DupeFreePro, here is how to use their software to instantly learn word count and test keyword density. Use the outline in Appendix B to create your META and page text content in a word processor like NotePad. Once the text file is ready to copy and paste, open DupeFreePro to begin analyzing your first page as illustrated here:



Using my home page as an example, I copy and paste the (1) on-page text content that will appear to visitors (not the META) in the large open edit box at the top left. You may now see (2) the summary of 513 words in 23 sentences and 11 paragraphs, below that I copy and paste my most important (3) key phrase "web design" in the keyword phrase box, and then below that I (4) click the "Calculate Keyword Density" button. The (5) keyword density for "web design" is 3.509% and it appears a total of 18 times.

The key phrase is highlighted in yellow throughout the text content, also.

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In testing each keyword or phrase from your list against your content, you may find the density is way too low, or too high. You can edit right in the DupeFreePro edit box to make adjustments and recalculate as you go. Be sure to have your content readable for people. My example just given is done and online. It took several hours to get to that point. As noted, the density is slightly lower than the optimum 4%, but at 3.5 percent that's okay, too. The #1 on page one results are evidence these methods work.

Design for people first, not search engines. It does no good to attract high traffic if your visitors are turned off by over-optimized nonsensical content. The point of having your keywords listed in order of importance in the META keyword list is the first word or phrase is the one term that defines the theme of that page. While other terms in the list need to be on that page, it may be difficult keeping content readable with all terms at 4-6.5%

When it comes to inserting key words into your site content, and using my 4% recommendation, a key word should appear about 20 times on a 500 word page. Shoot for that target to begin, and be prepared to test increases or decreases over extended periods of time as you track site performance and search engine position. Continue this process to analyze, test, and adjust the keyword density of each of your pages.

### **Backup your work!**

Once a page is done and especially if you edit within DupeFreePro, make sure to copy and paste ALL your changes from the edit box back into your NotePad file before you save it for adding to your website later. It would be a nightmare to spend hours on an edit just to exit DupeFreePro and realize everything was lost.

Note: The blank box to the right in DupeFreePro is for testing for duplicate content. If you have two pages on your site with similar content, you can copy paste each in a separate box to test that each is sufficiently unique to avoid duplicate content penalties.

The DupeFreePro software has other options. Read the help files or visit their website to learn additional features like searching for websites with identical content to yours. Google can tell the age of each page. The oldest version is the authority, and the other may be penalized. Never use content from another site. The key to SEO is “add **original** quality content often”.

## **5. Negative SEO**

Just as there are positive and natural methods of web design page optimization, there are negative SEO strategies that can affect how well your web design does with search engines. The following list is from a page on my website:

Do not have affiliate only advertising pages. You need a web design with original content.

Do not have over-optimized pages. Poor web design won't help SEO and may confuse your visitors.

Do not have link schemes, inbound or outbound. Deceptive web design practices will backfire.

Do not have identical content hosted on two separate domains (mirror site web designs).

Do not have plagiarized content in your web design. It is illegal, and search engines can tell.

Do not have foul language as in cursing, or website design content that is hateful or racist.

## **XI. CMS Tutorial | SEO Implementation**

### **1. Define Business**

The best way to define your business and attract new customers through a website is offer information that solves a problem. The focus should be on the benefits of doing business and not always the features of the products or services you offer. Keep that in mind in writing text content for a custom cms web design, and the reasons to do business will be easier for visitors to see and understand.

As a business owner you are the expert about the products or services that you have to offer. Part of communicating the benefits of doing business in your web design is how you present your sales message to site visitors. To motivate sales include an obvious call to action inviting people to interact.

## **2. Define Expectations**

Being realistic as you define expectations for a web design is essential. Most site owners want a web design that attracts a ton of traffic, makes a favorable first impression to keep visitors there longer, and finally has the call to action to convert those visitors to paying customers.

A quality custom web design is the foundation of that success. Proper search engine optimization will bring visitors to your site; a positive experience may keep them on the site longer, and if you offer value at a fair price delivered on time the sales should follow.

Too often new clients are obsessed with being #1 on page one, or at least being listed on page one for key words or phrases about their business. The search engines have a reputation to maintain for serving their visitors the most relevant results for a given search phrase. To become the #1 listing on page one of Google out of millions of options requires hard work.

As we continue with how to implement search engine optimization, keep in mind that being on top and then remaining on top is not guaranteed. SEO is a long term strategy and requires tracking and tweaking to earn and keep a page one position. Again, the key is add original quality content often.

## **3. Implement SEO**

At this point you may be in shock over the complex methods of web design and implementing SEO, search engine optimization. From experience with clients and advising the step by step analysis and testing necessary to properly optimize a page, SEO is necessary, yet no one said it would be easy. This is hard work, and explains why good consultants who truly know how to implement proper SEO are very well paid.

Furthermore, while I never guarantee any client Google page one, my web designs are optimized for search engines with code and content evaluation and very basic implementation. The fee for long hours necessary to fully optimize a website is impractical for most small business owners.

Many would be stunned if they were quoted full SEO of their site and find out that consultants get anywhere from \$5000 to \$20,000 for just one site. Those site optimizers who get results deserve their fee.

This tutorial is your opportunity to add value by investing your time, and enhancing the search optimization for your site without paying large fees to a consultant. For my clients contracting for a cms web design where they can add, edit, or delete pages, understanding the SEO buzz words and tasks needed are necessary for do-it-yourself web design.

#### **4. Ongoing Optimization**

Now that you have a 10 page website and you spent 3 hours on each page doing SEO testing and content analysis, most site owners would think they are done. For optimum value, SEO is an ongoing web design and website optimization activity. Over weeks, or perhaps months, you can track your site performance for key phrases to see your position in search engines. Find the starting point and know your ranking as you begin the process, and then check progress giving sufficient time to improve in ranking.

Be prepared to tweak your META tag code and page content by testing online search results for your key words and phrases, and make changes as necessary. Do not make drastic changes. Unlike some consultants, I believe that consistency from month to month and year to year is very important to show stability in what you offer and how it is presented. It's better to be done right up front to minimize ongoing SEO work later.

Keep in mind Google updates their rankings 4 times a year, yet improved search results can happen sooner. You can do quarterly searches on your key phrases in Google to see who #1 through #10 is, and then view their META code for clues how they got there. Perhaps their site is 10 years old. Age of a site is an important factor in ranking, so for a new small business website, you may never make #1 or even page one against sites that are established longer.

The real test is evaluating traffic and new business from your site by always asking new customers how they found you. You may be surprised just as several of my clients have reported, and they were contacted after being found on page one in as little as two months after their custom web design launched. I don't guarantee it, but it can happen.

Define your business and expectations and then follow this tutorial for cms web design and do-it-yourself search engine optimization, and the methods I use and teach should help your business grow like it did for me.

## **Paying to Have Your Site Optimized**

Earlier I touched on the subject of search engine optimization consultants. SEO has more than one meaning and also stands for "Search Engine Optimizer", which means a consultant offering search engine optimization services. The true experts do get anywhere from \$5000 to \$20,000 for optimizing a single website which is why I suggest DIY SEO. If you don't feel you have the time for ongoing optimization, you may consider paying to have your site optimized, yet be careful.

In addition to professional SEO experts who get results, there are unscrupulous people who know the buzz words contained in this report, and they razzle dazzle clients into paying thousands in recurring monthly or annual fees with zero results. New clients have contacted me and reported ongoing SEO service payments for years without results, yet they accept lame excuses and just keep paying. Here's one way they are deceived.

Search engines do not reveal their algorithms for serving up search results, so this secrecy is one weapon the unscrupulous or dishonest SEO snake oil salespersons use to explain away poor results. Be very wary of anyone who promises page one. It is a lie.

There are good SEO practices and poor methods. For evidence that my methods are safe and effective, view the screenshot on the next page, and then look at the Appendix listing with 35 Google page one results for my commercial site. Having a site sooner than later should be a priority.

My primary business is web design for small business owners, yet I also provide graphic art design services. One of the first requirements starting a new business is acquiring a business card design. For this reason, I have business card artwork as a target keyword phrase for my graphic art design services which in turn attracts web design business.

Persons who contact me for a new business card are often in startup mode for a new small business. In the course of our discussion I question their plans for a website, and while most agree it is part of the plan, many put it off because of budget constraints. Without knowing the true cost is \$50 a year, many overlook making a new website a priority. The potential loss not having a website could be offset from the profit from a single sale. Here's why business card artwork inquiries allow my web design business to grow.

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Here is a screenshot taken moments ago on August 9, 2008, the day this pdf ebook was released, and it shows my site as #1 on Google page one with the very first listing after paid ads for a search on "business card artwork".



As shown the total results are over 23 million, so out of that many web pages that offer business card artwork, my site was first after paid sponsor listings. New startups need business cards, and often our conversation turns to web design, my real business, and countless times my clients for graphic art end up becoming web design clients, too.

As a sole proprietor working out of my home without any staff, these results prove that there is a chance for the little guy to make #1 on Google page one, and compete successfully against much larger corporations without having to pay for ads. It will never happen if you don't have a website!

Finally, will I stay at #1 forever? I may not although I have for months. However, I don't guarantee Google page one to anyone, not even me!

## **XII. CMS Tutorial | Customer Site Management**

The balance of this CMS Web Design and DIY Search Engine Optimization ebook is intended more for clients for my custom cms system web design services. Other readers can benefit from this approach to creating a quality custom web design because some of the tips apply to static websites or sites using a different cms system.

### **1. CMS Training Overview**

The free web design and seo resources for clients of my cms web design services include additional pdf tutorials and online videos to demonstrate step by step guides for adding new content and optimizing your pages for search engine optimization.

Personal attention and advice is given as you research keywords and phrases and write text content. Fine points about advanced search engine optimization are provided in preparation for adding pages and launching your new custom cms web design.

The advice given allows clients a feeling of confidence to independently take over management of their website without further assistance. For any special circumstances that arise, help is an email or phone call away.

### **2. Create, Edit, Delete Content**

The cms system allows you to create, edit, or delete content from your new web design in plain text with the ability to upload photos or graphics, too. Unlike some content management systems, your admin backend panel allows creating pages with perfect xhtml without knowing html programming code.

To manage your site you only need to visit one page in the backend, so the simplicity means a short learning curve for adding and optimizing content.

### **3. Text Content**

My site was the first redesign of an existing web design converted to cms, and adding text content provided a few surprises. The process of copy and paste to add new content works perfectly, yet mistakes are easily made

when preparing that content. Here's why. Plain text is converted to XHTML within the system automatically. Unlike older code in HTML, a web design using XHTML is unforgiving, and using a word processor to create text other than NotePad may cause problems.

The reason problems may occur is that when exporting pages from a program like Word to plain text, the exported version may retain special characters that are not true plain text. Odd foreign looking characters may result.

To avoid problems, clients are advised to create original text content in NotePad only, allow wordwrap, and only use a carriage return to begin new paragraphs. Placing extra carriage returns in your text can result in multiple paragraphs where you intended to have just one.

The edit box function in the admin area of the cms web design system has advanced features for formatting text as bold, italic, superscript, subscript, and even plain or numbered bullet lists. Built in tutorials from the backend admin area includes popup instructions that demonstrate the text formatting and how to add hyperlinks in pages, also.

#### **4. Image Content**

The custom web design cms system allows uploading images in the edit panel of the admin backend. My advice is learning how to edit photographs to optimize the dimensions and file size using freeware from IrfanView. A large photograph will slow website performance with longer load time if not optimized. Using IrfanView you can control the file size, adjust the photo resolution to 96dpi, and save at 80% or 90% quality level to create edits that are 50kb file size or less.

The optimized photos will display well with clarity, and help keep your load time to a minimum. Go to [www.irfanview.net/](http://www.irfanview.net/) to download your free copy, and then watch the video tutorial I created for optimizing photos at [www.jimdegerstrom.com/blog/2008/05/new-large-screen-video-design-services.html](http://www.jimdegerstrom.com/blog/2008/05/new-large-screen-video-design-services.html)

From past experience I have viewed sites that used original digital photos of 1meg or larger in their web design. For dialup visitors each photo would take 30 minutes to load which is intolerable, so optimize your photos.

## **5. Hyperlink Content**

Internal linking from page to page within your website allows site owners to hyperlink content between pages or to external websites. Internal links add search engine optimization value to the phrase used to link between your pages. Use keywords in the link for maximum value instead of “click here” or other irrelevant phrases.

The text should identify the target page content. In the backend control panel for adding content, the cms web design systems allows adding a web address for the link with simple copy and paste edit controls, and popup help files.

## **6. Advanced Features**

Advanced features that some site owners may want to add include widgets like weather display graphics that depend on external code and links to operate correctly. Multimedia like audio or video and flash galleries requires special code for the content to display, also. The cms system allows site owners to add unlimited pages of text content with photos or graphics.

Unless the site owner has experience with code, these advanced features will require the assistance of a professional web developer. Contact forms, photo galleries, and flash or gif animations are other examples.

## **XIII. CMS Tutorial | Advice to Avoid Future Problems**

### **1. Template Modification**

The custom cms system has at least one template for page layout and another for the css styling, and may have multiple templates. Templates are created in xhtml and php with advanced options programmed that callout inserting content into each page.

Site owners should only access the content and new page tabs for adding content. Template modification may result in unexpected results if errors are made, and the site owner accepts the risk of ruining their website.

Do not modify the template or other admin settings unless you have code experience, or are willing to pay the expense of evaluation and repair.

## **2. Website Database Backup**

The content used to create your cms web design website is stored in a database on your server. Owners should access their website hosting control panel to do regular backups of their website database to avoid loss of content in case of a server crash. For most sites this is a safety measure only as the incidence of a lost database is extremely rare.

To perform a daily, weekly, or monthly backup, log in to your account with your internet service provider or hosting company, and follow instructions in their help files if backup is unfamiliar.

## **3. Text Revision History**

For text content created to eventually copy and paste into your cms content management system web design, my advice is saving those files as plain text on your computer. Having a filing system of one folder for new content and another for uploaded files will allow you to maintain revision history on your computer.

As you create pages using the recommended format in preparation for adding a page, consider naming that file with the web page file name that you assign when adding it to your website in the admin backend panel. If you log on to the admin section to edit an existing page, copy and paste the final version to update the file held on your computer.

This allows you to view page content in plain text form on your computer when considering changes without logging into the admin section.

## **4. Storing Content on Your PC**

Having a master folder of cms content for copy and paste or uploading is recommended. The text versions you create were described earlier, yet consider having image file and graphics folders, also.

As you do photo optimization you may have large digital versions of your photographs, and then smaller optimized versions. Keep these separate and make sure to only upload the optimized graphics.

The large versions should be held in case needed to do artwork for print.

## **XIV. CMS Tutorial | Additional Learning Resources**

### **1. CMS Web Design Help Files**

The admin backend CMS web design help files of my content management system are identified with a question mark icon. Site owners can access available popup windows for advice on topics until they gain experience with how everything works.

### **2. CMS Web Design Forum**

The open source developers of the default installation have a CMS web design forum, and links are included in the admin backend for users who need additional help on basic or advanced topics.

### **3. Other Web Design Resources**

View Appendix A on the next page for other web design resources. For clients interested in advanced techniques creating websites, another resource is the W3C, Worldwide Web Consortium. If you are a novice in web design and need assistance, clients and readers are welcome to email me from any page of my site for advice.

## **Summary and Conclusions**

The ability to add unlimited new pages to a small business website using the cms content management system that I offer is a breakthrough for owners who want to manage their site. The SEO advice offered here and during the development could well exceed the value of your design fee.

Clients for my custom cms web design services will receive additional pdf and video tutorial content to assist in learning how to add content for their web design project. For people with experience in writing website code, the system allows advanced techniques if you know XHTML, and allows mixing XHTML with the plain text.

Finally, for those readers who are not clients and gain value by reading this ebook, please consider forwarding a copy to your business peers and share the knowledge. If I helped you, introducing others to this tutorial and my services would be the highest compliment I could receive. Thank you.

## Appendix A - [Links to Web Design and SEO Resources](#)

XHTML and CSS Standards - [www.w3c.org](http://www.w3c.org)

Keyword Research Tools - [www.KeyWordDiscovery.com](http://www.KeyWordDiscovery.com)

DudefreePro Keyword Software - [www.dudefreepro.com/#download](http://www.dudefreepro.com/#download)

Follow the link at the bottom of any page of this pdf tutorial ebook to visit my commercial site at [www.jimdegerstrom.com/](http://www.jimdegerstrom.com/).

From the top navigation, follow the advice podcast link to listen to weekly advice for web design and seo related topics only. The advice blog covers web design and graphic artwork, and finally use the Google search box on any page to search just my website with over 400 pages of helpful advice.

## Appendix B - [Sample Text Content Worksheet for SEO](#)

Use the outline below by doing copy and paste to create a master file for creating new site content using the following example. The format is ideal for preparing text content in NotePad to test in DupeFreePro, and then later for adding pages to your web design.

TITLE:

DESCRIPTION:

KEYWORDS:

(Headline)

(Paragraphs of text)

Notes to maximize this format for your web design project using my cms:

The title, description, and keywords provide content for search engines which is included in the code for each page. This data is entered as plain text and automatically converted to xhtml for pages that you create and publish.

Search engines do not view what a visitor sees on a computer monitor. Search engines only access the code used to create that page. The (headline) and (paragraphs of text) in the format above are the text content that will appear on your page.

## Appendix C - **Evidence of Success with SEO Methods Being Taught**

This list of Google page one search results show actual visits to my site in July 2008 for web design related searches. Those listed were at #1 or #2 on Google page one at the time, plus more than 70 additional at #1 to #10.

average cost custom web page design  
best webmaster tools review  
best website advice blog  
business advice blog  
cms for business web design  
cms rental website  
cms web design price list  
cms web design pricing  
cms webdesign  
cms webdesign cost  
custom cms  
custom cms design services  
custom cms tutorials  
custom cms web templates  
custom template design  
custom video production web design  
custom web design small businesses  
custom website design and cms  
custom website design prices small business  
design services pricing  
future of customized websites  
integrated blog design  
personalized cms design web services  
seo audio download  
seo audio program  
small business websites cms  
static web design price list  
vacation rental web page design  
web design business advice  
web design client  
web design cms services  
web design service price list  
web design services price list  
web design services: cms  
webdesign tutorial +cms

**Note:** Prior to implementing these advanced seo methods in June 2008, there were no web design related results for my website listed on Google page one at #1 or #2. These methods of search engine optimization work. **These results took 6 weeks to achieve.**