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WEB SITE ENHANCEMENT FOR THE BUILDING CENTRE

An Interactive Qualifying Project Report

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Executive Summary

Our project sponsor, The Building Centre, is an organisation dedicated to providing construction and home improvement information to both professionals and laypeople. The Building Centre Group is closely tied with The Building Centre Trust, a charitable organisation dedicated to providing educational support for the construction industry. One of the chief ways customers and visitors access The Building Centre is via the Internet. The Building Centre's administrators believed its web site was in need of enhancement to remain competitive in its trade.

After conducting our background research, we determined two main goals for our project. We chose to focus on enhancement of web site design, specifically with regards to navigation, organisation, and content. We also worked towards improving the web site's marketing, both of the products sold, and the web site itself.

The methods used in our project were divided into two main areas. We needed to develop data for the user-friendliness of the web site, and also how the web site is currently marketed through search engines and linking. These two properties were important to collect data about, because they illustrated whether the Centre's site was lacking in regard to its navigational abilities, content, or its general marketing.

For the evaluation of the user-friendliness we utilised three methods. We performed a web site evaluation, which consisted of each team member evaluating nineteen web sites as well as The Building Centre's own site. The aspects of user-friendliness we considered in these evaluations were navigation, organisation, layout, and content. A second method employed was a web user survey. This survey was distributed in several ways. It was emailed as part of the Centre's monthly newsletter, which was sent to 40,000 people on The Building Centre's mailing list starting 1 April, 2004. It was also posted on The Building Centre's web site as a pop-up window and later placed as a direct link on the home page. In addition, paper surveys and postage-paid envelopes were distributed to visitors to the Centre. These surveys were similar to our assessment protocol in the areas of user-friendliness covered. We interviewed the staff of The Building Centre, and although we were doing so for marketing purposes, they provided us with some constructive criticism of the site, for example concerning the layout and content.

To determine how many of the organisations located on the 'Useful Links' page of the Centre's web site linked back reciprocally we searched each site for a link to The Building Centre and found only twenty-one of the total hundred ninety-one sites linked back. The staff interviews also provided us with information regarding the marketing of the site. We submitted The Building Centre's site to seventeen major and international search engines. We also optimised the design and keyword usage of The Building Centre's home page to make it web-crawler-friendly and to emphasise important keywords. The importance of keywords was determined by researching the rankings of the keywords used on the site on ten major search engines, as well as by looking at how often the individual keywords are searched for. We then examined the use of sponsored links as a way to increase The Building Centre web page's visibility on major search engines.

Our web user surveys and assessment protocol results were similar concerning the user-friendliness of The Building Centre's site. The navigation of the site was good, however certain areas such as the linking to the Product and Information Search and the reciprocal linking from The Building Centre to The Building Centre Trust were inadequate. The site organisation had several flaws, including too small a font size, the lack of excitement in the layout, and crammed content. All of these factors contributed to a difficult to read and visually unpleasant layout. For the reciprocal linking to other organisations, we sent emails to every organisation that did not have a link established to The Building Centre. We received responses from four organisations agreeing to link with us. Although four links may not be many, there are now currently four new ways in which users and search engines alike can find The Building Centre.

At the conclusion of our project, we had made major moves in the enhancement of The Building Centre's web site. We identified areas of weakness in the site design. To remedy the problems, we created example pages incorporating changes to make the site user-friendlier. In addition, we determined ways to improve the site's marketing. We submitted the site to frequently used search engines to increase its appearance in search results. We also suggested changes to the site that would result in optimising its rankings on search engines. By implementing our recommendations, The Building Centre will have gained a greatly enhanced web site.

Abstract

The goal of our project was to identify areas of weakness in The Building Centre's website and provide recommendations for enhancement. The project focused on website design and marketing. Website design was evaluated using an assessment protocol, the results of which were used to create example pages demonstrating an enhanced website. In the marketing area, we contacted organisations concerning reciprocal linking, and worked towards search engine submission and optimisation. Through these efforts, The Building Centre will have gained an improved website.

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1. Introduction

The continual growth of the World Wide Web has developed a new field where commerce can occur. As a result, many companies have turned towards the Internet to market their products and to stay competitive in their respective trades. The Building Centre is one such company that has opted to go online to expand its target market.

The Building Centre is an organisation dedicated to providing construction and home improvement information to both professionals and laypeople. The Building Centre Group is the commercial arm of The Building Centre Trust, a charitable organisation dedicated to providing 'support for educational, research and cultural activities connected with the built environment' (Building Centre Trust, 2004). One of the chief ways customers and visitors access The Building Centre is via the Internet. The Building Centre's administrators believed its web site was in need of further development because it was not as proactive as its competitors'.

Before we developed a strategy to address our sponsor's problem, there were several issues we needed to explore and give attention to. The project involved the analysis of web sites, both of The Building Centre and its competitors. To conduct this analysis, we developed an assessment protocol which employed many relevant criteria, an example being user-friendliness (Spool, 1999). Comparison of web sites allowed us to identify what The Building Centre's site was lacking. We also needed to look at how organisations use their web sites as marketing tools. How well does the web site market not only the product (information), but also the web site itself?

In an attempt to determine areas in need of improvement, The Building Centre implemented a feedback pop-up window on its web site, but the web site had received only limited feedback from users, and it had been largely positive, failing to point out any problem areas. The Building Centre also had a list of competitor web sites that it believed were more proactive than its own web site. As a part of our project, we determined why the competitor web sites are seen as more proactive.

We researched web assessment methods, so that we could evaluate The Building Centre's web site, along with those of its competitors, and other web sites that are popular and generate high visitor levels. Using a relevant and professional assessment method to assess these web sites showed us what The Building Centre's web site did

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well, what needed improvement, and what other web sites were doing well, so that we could learn from their success. We also researched web site navigation and organisation techniques, as well as web site marketing. This research was done to determine specific necessary improvements on The Building Centre's web site. We thereby gained the knowledge to assist The Building Centre in designing and implementing the improvements, making sure its web site was more user-friendly and marketable. Finally, we created a format for conducting surveys and interviews with people who do business with The Building Centre and use its web site, the purpose of which was to find out what improvements they wanted to see put into effect.

2. Background Review

The basics of web site organisation and navigation, as well as product and web site marketing, were determined to be the areas of knowledge necessary to carrying out this project.

Through our research we encountered many high-quality web design exercises, techniques, and marketing strategies. These were valuable in designing our own assessment tools. In this background chapter, we also discuss the needs of web site users to cultivate ideas for developing The Building Centre's web site. Marketing methods are discussed to gain a deeper understanding of how The Building Centre can raise awareness and use of its web site.

2.1 Web Site Navigation

When considering the overall design of a web site, one of the most crucial concepts to analyse is navigation. Web navigation can be described as giving the user tools and controls to find his way around the site as well as locating information he seeks easily and conveniently. Navigation is one of the most important parts of usability. According to Holmes (2002), if a web site cannot be manoeuvred around simply and effectively, it should be taken off of the World Wide Web.

There are many different methods and design techniques to ensure that a web site is functional for the user. As previously mentioned there are navigational aids such as navigation bars and links which, when used properly, are successful in avoiding inconveniences such as dead ends (Spool, 1999). Furthermore, one must always keep the needs of the user in mind. Setting up the navigation of a web site is comparable to teaching a class to students of different academic capabilities. Although one must find a way to present information to everyone, he must be careful at the same time to not let any students fall behind or become confused. One cannot assume that all site visitors have the same understanding of the Internet; in fact it has been shown that some users do not realise there is a 'Back' button on their web browsers (Spool, 1999). If a user is confused by the site navigation, he will most likely not find the information he seeks and most likely not want to use the site again. A goal of any web site according to Lazar (2001) should be for the user to find exactly what information he is seeking with the fewest

number of mouse clicks possible. Navigational controls and aids can accomplish this goal if used effectively. However to use these items, it is vital to understand how they are best used.

2.1.1 Navigation Bars

Navigational controls are an important means that allow users to travel around the site. An example of one such control would be a navigation bar. A navigation bar allows users to look at as well as select different categories and sub categories of the web site. A navigational bar may be used anywhere on the site, however it is proven to be more effective if located along the top or in the upper left hand corner of the web site (Lazar, 2002). Navigation bars should be consistent throughout the web site in terms of their function, appearance, and placement from page to page on the web site (Holmes, 2002). Pull down menus are also a positive aid to navigation bars. This allows each category to have a several different sub categories. The Building Centre's web site contained such a navigation bar, and it is located at the top of every page. However, at times the navigation bar lacked consistency. For example, out of the seven categories on the bar only five of them have pull down menus with sub categories when a user places the cursor over it.

2.1.2 Links

Links are another important web navigational control. Links are perhaps the most essential navigation control because without them, there would be no web site navigation. There are many different ways to incorporate links into a web site. As previously stated, a navigational bar may be set up, and can easily link users to different pages of the site. There are many efficient ways to place links onto a web page, however at the same time there are also places where links are misused and futile.

A graphic may be used properly as a link, for example the header on every page of The Building Centre's web site is a link which when clicked on will take the user back to the homepage. An easy way to organise links effectively is by making a list with each separate link bulleted. Especially in long lists of links, bullets can help the user distinguish different links from each other (Spool, 1999). However, links are most

effective when they are clear for the user to make out and described with a small quantity of text (Spool, 1999). If a link is not described with a small fragment of text it doesn't necessarily mean the link is ineffective. As long as it is clear to the user where the link will be taking him within the site, it is valuable.

There are, on the other hand, certain ways of using links that are unsuccessful. Using links embedded in paragraphs of text is a bad practice to get into because it can interrupt the flow of reading; a link could be missed if a user decides to skim through text (Holmes, 2002).

On The Building Centre's web site there were well-constructed links, however there were many that were not. For instance on the navigational bar some of the links are single words and do not give a clear picture of where they are taking the user. Also some links are located within text or directly below paragraphs of text.

2.1.3 Internal Search Engines

Another good navigation control is a search engine within the web site. It is ideal for a user to be able to find the information he seeks without having to resort to a search engine. Often, however, a search engine can help save the user some time (Lazar, 2001). At times the results of a search may be difficult to interpret due to the fact that many results are irrelevant. However, it is still an effective tool for most web users (Spool, 1999). Although there was a search engine for a database of manufacturer news on The Building Centre's web site, there was no search engine that covered the entirety of the site. The Building Centre's web site also lacked a page of frequently asked questions, which is commonly referred to as simply the FAQ page. A FAQ page can be extremely helpful in web site navigation. A question a user has about where something can be found on the web site may have already been answered on this page (Spool, 1999).

2.2 Web Site Organisation

Web site organisation is a key element affecting one's understanding of the breadth of this project. It consists of the layout and placement of information on a web page. Organisation also includes the content displayed on the web site. A strong background regarding the layout and presentation of information is essential in

understanding web site usability. Using this knowledge of web site organisation, we assessed the current site and identified changes that could be made to improve the web site.

2.2.1 Viewing Content

When designing a web site, one must use extra care in constructing a site that will be easily viewable by all its visitors. The presentation of a web page is influenced by several factors such as text, colour, and graphics. Because part of this project's goal was to increase awareness and use of The Building Centre's web site, this is an especially important topic to consider. We needed to be sure that any visitor attempting to access the site was able to view its entire content (Jamsa, 2002).

2.2.1.1 Text

The fonts displayed on a web site must be easily read by all viewers. Using a traditional font such as Times New Roman, Arial, or Courier New is advisable for this reason. These fonts are frequently used and are highly readable. Readability is especially a concern for any viewers with impaired vision.

A web site's text must be of an appropriate size. Size fourteen or larger is generally advisable for high levels of readability. Using a traditional font with a large text size will help to ensure easy viewing for those with impaired vision.

Although it is important to consider the readability of a web site when selecting a font, there is another important factor to consider. Using a non-traditional font can make a web site more creative and exciting (Nielsen, 2000). In this case, the use of a less common font is done at the sacrifice of easy reading for all viewers. It is best to strike a balance between a high standard of readability and creative web design.

2.2.1.2 Colour

Colour is a very important factor in any web site design. Using basic colours is advisable, so that any monitor will be able to display the appropriate colour scheme.

The background is the base for an entire web site. The text and graphics must contrast sufficiently with the background to make content easily readable. It is also

important to note that the text colour must not make the page too difficult to read. Using traditional text colours such as blue and black will increase readability.

2.2.1.3 Graphics

Appropriate placement of good graphics on a web site will greatly increase the overall quality of a site. It is important to consider that graphics are used to *supplement* a web site, and should not significantly lengthen the download time (Jamsa, 2002).

Graphics should be simple and viewable by most visitors. Any graphics or pictures (as well as navigational links) should have descriptive captions. This is necessary because in the case that a graphic cannot be displayed, visitors can still ascertain what information was provided by the graphic.

2.2.2 Content Quality

Content is what draws visitors to a web site. It also keeps users engaged and viewing information displayed on additional pages. For these reasons, the quality and style of content is vital to a web site's usability.

There are several different aspects of content quality to be considered when designing and assessing web sites. Each factor has an important role in the success and usability of a web site. However, different experts grant them varying levels of importance.

2.2.2.1 Technical Design

Some experts stress the importance of the technical aspects of a web design (Nielsen, 2000). These technical aspects include the factors involved in viewing content, such as text, colour, and graphics. Proponents of technical web design believe that a web site's visual appeal is the major reason for a viewer to remain at a web site. These technical factors have a large impact on the style of a web site's content.

2.2.2.2 Communication Methods

Conversely, others believe that the actual content of a web site and the methods used to disperse information are more important aspects of web site organisation (Vibert,

2000). This means content should be communicated efficiently and structured well (i.e. graphs, charts). This also means a web site should be easily navigable. By communicating content well, the quality of a web site will increase greatly. Users will be more satisfied with (and more likely to return to) a site where desired information is easily located.

2.2.2.3 Tone

The tone of a web site is the general image it projects to a viewer. Language choice, graphics, and many other factors affect tone. A site's tone will influence a visitor's perceptions about the identity, purpose, and quality of the site (Powell, 2002). The tone of an informational web site differs greatly from that of a commercial or entertainment site. For this reason, Powell considers it important for a professional organisation such as The Building Centre to use a professional and business-like approach to its web design and structure.

2.2.3 Layout

Layout is the arrangement of information, pictures, and links on a page, a key factor in its appeal to a visitor. If information is displayed in a confusing manner, or if the screen appears cluttered and disorganised, a visitor will quickly become discouraged with the web site, and look to other sites to obtain the desired information. As a general rule, the majority of a web page should be dedicated to *content*, rather than navigation, advertising, or other options (Nielsen, 2000).

There are three main goals to web site layout: simplicity, consistency, and focus (Brinck, 2002). By keeping a web page simple, the emphasis is placed on the content, instead of 'extras', such as graphics, pictures, and backgrounds. Consistency makes users more comfortable with a web site, as it is obvious how the site is structured. Even though a visitor may jump from page to page, consistency reassures him that he is still in the same overall site. Focus highlights the most significant elements of a web site.

There are many important elements in the layout of a web site. Some of these include contrast, balance, and repetition. These layout ideas are keys to creating strongly developed and usable web pages.

2.2.3.1 Contrast

Contrast is essential in a good web site, because it draws attention to important information. A site that is completely uniform and void of contrast is boring. Conversely, a web page that has too much contrast can appear cluttered and could overwhelm visitors.

2.2.3.2 Balance

Balance is the distribution of information on a web page. Balance is normally maintained by symmetry; asymmetry, however, can make a page's appearance more aesthetic. If information will be changed frequently, a symmetric balance is advisable, because it is easier to maintain (Brinck, 2002).

2.2.3.3 Repetition

Repetition is a key part of good web design. This refers to using similar font sizes and colours on a page (and on different pages within the same overall web site). Repetition also extends to pictures and graphics, such as logos. These repeating images create a sense of continuity and simplicity for visitors, as well as decreasing download time (Brinck, 2002).

2.3 Web Site Marketing

Marketing is the strategy promoting certain ideas or products to a mass audience (Rados, 1996). Within the past decade, the Internet has grown and developed an entirely new economy. In this area of new commerce, companies have applied old strategies of marketing to the new concept of web sites. Marketing a web site properly is essential for the success of the web site's objective of selling ideas, information, or products.

Two essential segments of marketing applied to our sponsor's situation. These are the marketing of the products and services on the web site, and the marketing of the actual web site itself.

2.3.1 Marketing the Web Site

In marketing the actual web site, several different methods have been used by other companies in achieving a goal of attracting high user visits. These methods primarily focus on advertising the web sites in different locations whether they are another web site, or printing the web address on a newspaper ad or business card. However, other companies have focused on enhancing the web site itself to draw visitors (Swartz, 1997). It is pointless to advertise a web site heavily in other media just for the consumer to check out the site and find it less than appealing. Thus, web design has become increasingly important to convey information in an efficient and pleasant manner. The three most essential and easiest techniques to implement are to create links to your site, advertise through word of mouth, and offer desirable products or services to attract people (Viral Marketing Techniques, 2004).

2.3.1.1 Offer Desirable Products & Services

Companies have always strived to create an attractive web site to draw visitors. Some have been successful while others have not. In the case of the Jack Daniels Distillery web site, its marketing techniques proved successful (Schwartz, 1997). To draw interest to their web site, the webmasters of the distillery developed the site more into a theme park rather than a regular product marketing web site. The site offered interactive tours of Lynchburg, Tennessee, home of the distillery, and included interesting facts about the founder of the distillery, Jasper Newton Daniel. Instead of just selling a straight product, the Jack Daniel's Distillery web site is able to appeal to the curiosity of the consumer. As a side result, this curiosity and intrigue will hopefully provoke the consumer to purchase the product. This is an example of the third technique of offering a desirable product or service. The Jack Daniels Distillery web site helped overcome the idea of just selling whiskey, and instead tailored it around a more amusing, leisure web site. This method also worked to spread the idea of the web site through word of mouth. Once people visited the site, they became intrigued and told their friends to visit the site, thus increasing visitor traffic.

2.3.1.2 Word of Mouth

The word of mouth technique was also apparent in the winter of 2003-2004 when United States presidential candidate Howard Dean created a grass roots fundraising campaign through the Internet (Howard Dean for America, 2004). Dean used word of mouth in conjunction with his web site to generate strong public interest and fund his campaign. The campaign used a relatively new idea, a service provided by Meetup Inc. Meetup Inc. is a company which has developed a web site that provides 'a free service that organizes local gatherings about anything, anywhere' (Meetup, 2004). In the case of Howard Dean, Meetup.com was able to promote his very popular grassroots campaign by having regular people sign up for Meetup.com, meet in designated meeting areas and discuss political topics. These regular people were also very valuable to Dean because they were voters and possible campaign contributors. Thus, these regular citizens became Dean followers, contributors, and most importantly, advertisers through their spreading of information via word of mouth.

2.3.1.3 Increase Links to the Web Site

Search engine optimisation is a technique for marketing, which increases links to a web site. This is a method in which search engine key phrases or words are researched for effectiveness before actually being registered onto the search engines. This is intended to increase the chances that a web site will be on the 'top ten' list when somebody types in a key phrase. Several companies offer this service of web site marketing such as OysterWeb, a United Kingdom based company (Website Design International, 2004).

2.3.2 Approaches to Web Site Marketing

Web site marketing can be conducted by advertising in other media, such as newspaper advertisements or television commercials, or it can be conducted within the web itself through the use of advertising banners on other web sites and increasing key words for search engines.

The main lesson learned from this concept of web site marketing is that ultimately, it is necessary to sell the web site just as much as it is to sell the product that

the web site advertises. Web site marketing is like advertising for the advertisement (Schwartz, 1997), and without properly getting the word out concerning the web site, it will not successfully sell any product advertised on it. All three online marketing techniques previously listed above were helpful for our sponsor's situation. It required the joint effort and implementation of all three techniques to create an effective change in the marketability of the web site.

2.4 Online Product & Service Marketing

Online marketing of products and services is a cornerstone for any commercial web site. The web provides a new channel for marketing communications. Because of the new kinds of interaction it makes possible, the web 'turns traditional principles of mass media advertising … inside out, rendering impossible the blind application of marketing and advertising approaches that assume a passive, captive customer' (Hoffman, 2000).

According to Chaffey (2000), there are several things that must be kept in mind when using the Internet. Users seek information rather than have organisations provide it (although e-mail newsletters are an effective medium to attract users). Interaction is very easy, and communication can be personalised instead of being a one-to-many affair. Four relevant marketing strategies and/or issues are the organisation, implementation, and use of:

- online stores
- emails and private mailing lists
- buying and selling online ads
- keywords in external search engines.

2.4.1 Online Stores

When The Building Centre decides to merge the Bookshop with its web site, and to increase the general marketability of the site, it will have to deal with several issues, such as security for online ordering and transactions, as well as the organisation and implementation of an online catalogue. These issues are still prevalent even while a third

party runs the Bookshop, as it is a very important part of The Building Centre, and reflects back upon it.

Ever since the World Wide Web became a major platform for shopping and financial transactions, Internet identity theft, as well as mistakes on orders, both intentional and unintentional, has been a major fear for consumers. To address the fear of identity theft, any online store should employ some sort of secure system, such as the service provided by http://www.cybercash.com, to protect the customer's identity and credit card or bank account numbers. To allay the fear of mistakes on the actual orders, an online store should provide a way for the consumer to print out order forms, as well as a way for the consumer to track the status of the delivery of the ordered product. Online stores can also protect themselves against false claims by using certified shipping, certifying credit card numbers with the carriers before shipping the product, and asking for the customer's personal information, such as an address for verification purposes (Janal, 1998).

The online catalogue is the most important part of any online store. Just like The Building Centre web site itself, the online catalogue should be clear and concise. Thus, the same strategies for web site improvement discussed above also apply here.

2.4.2 Emails & Private Mailing Lists

Miller (2003) states that, 'according to a September 2002 Gartner, Inc. report, email has grown to become the second most popular communications channel after voice. Eleven billion emails were sent per day worldwide in 2001. That number is expected to more than triple to 36 billion per day by 2005. While not all business email, these numbers project a staggering volume and IT departments will be forced to handle mounting storage and content management needs related to email if this trend continues.' Organisations need to have a competent email handling and archiving system, as well as a clear understanding of proper email etiquette and how to use emails effectively.

According to Janal (1998) email is a cost-effective means of communication, and can be used with any type of computer system. The benefits of using email to communicate with existing and potential customers are product and service exposure,

build-up of customer loyalty, market research from consumers' replies, and one-to-one relationships with customers.

Janal (1998) states that GolfWeb, a web site that was started in 1995 for the purpose of addressing golfers' needs, has grown each month and had more than 25,000 pages of information content by 1998, with their revenue model based on retail operations as well as advertising sales. Visitors used GolfWeb to access information related to golf, such as tournament results, historical data, and editorials, which led the company to believe that its content draws readers, which in turn, results in sales. Its focus is on drawing readership of the site rather than just shoppers. All of GolfWeb can be viewed free of charge. The web site provides relevant links inside its site to connect its different sections, as well as an automated shopping system over the Internet. It uses Cybercash for security, and many different methods of ordering and delivery. These methods have lead to success for the GolfWeb web site.

Janal (1998) provides several guidelines for using emails. These include:
- double-checking emails before sending them out to avoid any typos and mistakes
- making emails look individual, to create a feeling of intimacy
- creating a signature file to add to each message, to tell people who you are and what you do
- avoiding buying bulk email lists, as using these may offend many people with what they may consider 'spam'.

Strategies for creative effective email messages include:
- creating compelling subject lines to attract the recipients' attention
- using short paragraphs and messages, so the emails are quick and easy to read
- asking for action/questions/feedback, so there is no doubt as to what you want
- replying to emails quickly to decrease customer waiting time.

There are two schools of thought on how best to format emails. According to the Janal, using ASCII text for all the emails ensures that they are transmitted properly, so no data is changed. On the other hand, using HTML formatting makes the emails look better than ASCII emails.

The GolfWeb web site is similar to that of The Building Centre in that it provides information as well as products to a specific market. The information it provides is free,

just like much of the information provided by The Building Centre's web site. GolfWeb has an online catalogue advertising the products it sells, which is what The Building Centre wants, but does not currently have. Many of the techniques above, such as a good inner linking system, were used by GolfWeb to achieve success, and can thus be used by The Building Centre (Janal, 1998).

Email is a pivotal system of communication and marketing, but it must be analysed and stored quickly and efficiently, and used keeping email etiquette in mind. Emails should convey all necessary information in a clear and concise way, and not be used as 'spam' (Miller, 2003).

2.4.3 Keywords in External Search Engines & Online Ads

External search engine keyword placement and online ads are also very important marketing tools. A way to achieve this is to pay the search engine companies for favourable placement. 'Not only is it exceedingly simple to buy listings by keyword and phrase, according to observers, search engine pay-for-performance is now a billion-dollar industry and the fastest growing form of advertising anywhere. Now whenever and wherever a business- or consumer-related search is entered, the results are likely to include ads. 'If 50,000 people are searching for what you have to offer each month, you can't afford not to be listed,' explains Harry Gold, managing partner of Overdrive Marketing Communications, a Boston marketing firm. 'Search engine placement, whether paid or natural, reaches people at the critical moment: when they are seeking your information or products.' Gold sites the Trusted Time Division of Symmertricom as an example. After implementing a paid placement programme, Gold says, Symmertricom experienced a 400% jump in web site traffic and a 1000% increase in online leads resulting in a dramatic 67% increase in sales (Scott, 2003).

'According to Danny Sullivan, editor of *Search Engine Watch*, "It's best to understand the network model and there are two: the Google network and the Overture network. Working with the Google AdWords programme not only lets you onto Google, but also onto AOL and Earthlink, while the Overture network gets you into the Sponsor Matches programme on Yahoo! as well as listed on MSN and others." What this means is that an advertiser only needs to work with two companies—Google and Overture—and it

can buy listings on search engines representing the vast majority of search traffic on the Internet' (Scott, 2003).

2.4.4 Why Advertise Online?

In <u>One-to-One Web Marketing, Second Edition</u>, Cliff Allen presents some interesting statistics: 'According to a Greenfield Online study, 62 percent of respondents would watch less TV to spend more time on the Internet. Andersen Consulting found that 25 percent of respondents in a study found a web site as a result of clicking on a banner, followed by newspapers and magazines (14 percent), TV commercials (11 percent), radio (4 percent), and outdoor billboards (4 percent)'(Allen, 2001). This suggests that online advertising is the most effective way to market web sites.

3. Methodology

To accomplish the goal of improving our sponsor's web site, we needed to analyse the current web site. This required the use of several evaluation methods such as interviews, surveys, and a web site assessment. These methods helped us gather information regarding our sponsor's site from an unbiased means. We also worked on techniques to further increase the marketability of the web site and its products and services through proven techniques by professional advertisement companies.

3.1 Enhancing Web Site Design

By identifying areas of weakness and recognising possible improvements, this project sought to strengthen The Building Centre's web site design. To do this, it was essential to gather specific information about the site. The methods and techniques used to collect this information are discussed in this section. This data collection, as well as the methods used to analyse the data, determined the recommendations made to The Building Centre regarding its web site design.

3.1.1 Web Site Navigation

We took several different steps to compile all the necessary information for the completion of our project. We conducted qualitative interviews with The Building Centre staff. The web user survey was distributed to visitors of The Building Centre's web site and facility, to understand the user's opinions regarding the site.

3.1.1.1 Research Method Types and Bias

Our research methods were far more qualitative than quantitative, although both were incorporated into the project. The two main qualitative portions of the research were the surveys and interviews. These provided us with the most useful insight for us to identify a solution to our problem. As much as we studied areas of web site usability such as navigation and organisation and tried to analyse The Building Centre's web site ourselves, it was beneficial to have the opinions of many different web users.

We had to be mindful of some possible bias in our research methods. For instance, some of the participants may have had more experience on The Building

Centre's site than others. The more people that filled out our surveys, the more effective our data collection was.

3.1.2 Assessment Protocol

We developed an assessment protocol to efficiently evaluate the site and identify areas of weakness. This protocol consisted of three separate sections: interviews, web user surveys, and web site assessments. Each of these tools aided us in identifying high priority areas of the web site which were most in need of enhancement.

3.1.2.1 Interviews

An interview is defined as a face-to-face interaction between an interviewer and interviewee. It is important to consider not only the questions being asked but also the flow and order in which they are presented (IQP Handbook). The goal of our interviews was to draw as much information as possible from the staff of The Building Centre regarding how their individual positions relate to the web site and whether or not they had any suggestions for remediation of weak areas. We interviewed the following key members of The Building Centre's staff:

- Colin Ashby, Bookshop Manager
- Clare Catterall and Ursula East, Conference Facility Coordinators
- John Gibson, Commercial Director
- Colin Henderson, Chief Executive
- Craig Horn, Information Service Manager
- Michael James, Web Site Coordinator
- Roshni Kara, Commercial Manager
- Neil Martin, Market Research Manager
- Julie Seebalack, Guideline Manager
- Guy Burrows, Sales Manager
- Andrew Scoones, Building Centre Trust Manager
- Jackson Hunt, Building Centre Trust

3.1.2.2 Web User Surveys

One of the end goals of this project was to make recommendations to enhance The Building Centre's site. Specifically, we worked to enhance the usability of the web site, making it a more useful tool for its visitors, better advertising for manufacturers, and better marketing for The Building Centre itself. To help us assess what web users liked and disliked about The Building Centre's site, we developed a web user survey (Appendix A).

The survey was a qualitative evaluation of the site. Web users who complete the survey were asked to answer a series of questions to help us gain insight regarding high priority areas. Questions asked were divided into several categories:

- Background
- Navigation
- Search Methods
- Organisation
- Content
- Overall

By sampling, we hoped to get a generalised opinion of a random population that represents a larger one (Singleton, 1999). The Building Centre has a monthly newsletter they send out to their mailing list via email. We placed our web user survey on the April newsletter. We did not simply send out an email saying 'fill out a survey'. We made it clear to people they could have an input on how The Building Centre's site looks and/or functions in the future. People like voicing their opinions, and appealing to this trait served as an excellent tool.

Additionally, we conducted our web user survey with a different audience. When visitors came to The Building Centre's facilities, they completed an 'Information Services' form where they provided some basic biographical information, in addition to listing their interests regarding building and construction. We included our web user survey, a pamphlet of information about the web site, and a postage-paid envelope with this 'Information Services' form. Visitors were asked to complete the survey at home (either online or using the provided paper version) to give us more input regarding The

Building Centre's site. This allowed us to survey a different sector of people than those listed on The Building Centre's mailing list.

We posted our web user survey on The Building Centre's site as a further method of conducting our survey. When a visitor leaves the site, a pop-under box would appear, requesting that the visitor complete a brief survey regarding our site.

3.1.2.3 Web Site Assessment

The web site assessment (Appendix B) was applied to The Building Centre's web site as well as the sites of The Building Centre's identified competitors. The assessment aided us in understanding which areas of The Building Centre's site should be improved to increase usability.

The web site assessment focused on two main areas of web design and usability: navigation and organisation. These areas were more readily studied through a web site assessment, than other concepts such as the various divisions of marketing. For this reason, the emphasis of the assessment was on navigation and organisation of the site.

Navigation was evaluated by utilising the assessment protocol, to identify areas of navigation that may be weak. Specific topics that were discussed included the structure of information throughout the site, movement through the web site, and movement to outside web sites. Information structure refers to the way information is distributed throughout the site (Powell, 2000). This should be done in a manner to allow visitors to easily find the information they are seeking. Movement through the web site focuses on the ability of visitors to move internally from one page to another. The assessment also examined movement to outside web sites; essentially, how easily users were able to find outside web pages, and how relevant these outside sites are. This inspection of web site navigation allowed us to recognise weak areas in The Building Centre's site navigation scheme.

The assessment also examined the organisation of web sites. Specifically, we considered the user's needs regarding site content. A strong site has pages with basic information. These pages then link to other pages with secondary information (Nielsen, 2000). Also with regards to organisation, we examined the readability of a site, for example with regards to fonts, text sizes, and colour schemes. The quantity and quality

of graphics were also considered within the assessment. By studying these aspects of web site organisation, we gained a clearer understanding of which areas of The Building Centre's site required improvements.

The questions asked in the assessment were designed to determine whether The Building Centre's site is successful in communicating its information. We asked questions regarding both site navigation and organisation design. The questions delved into specific areas of these categories.

3.2 Marketing the Web Site

To learn how The Building Centre can better market its web site, we conducted research through available data. This data included the current information known about our sponsor's site and its current marketing techniques along with how competitor's sites compare. As well, we have made efforts to increase linking, as well as some provided urgent suggestions about improving print advertisements throughout their publications.

3.2.1 Research of Available Data

We chose research of available data as a way to gain the necessary knowledge because it is faster, cheaper, and more effective in studies of the past, and often provides nonreactive measures of concepts (Singleton, 1998). Also, there is a great deal of available information on online marketing that indicates that surveying or focus groups would not be ideal for researching marketing as it is a more abstract concept than web site navigation or layout. In addition, these methods take longer to produce results, because they require feedback.

3.2.1.1 Validity Issues

In using existing data, some validity issues, such as a different purpose for data collection, possible errors in the data, and misinterpreted definitions, may have arisen (Singleton, 1998). For example, marketing strategies that may work for large corporations, which have large budgets specifically for marketing, or for non-profit organisations which must rely on donations, may not have been appropriate for The Building Centre, which is somewhere between the two extremes. These issues were

avoided by properly evaluating and refining the existing data, as well as by analysing it in a manner that will be discussed later (Singleton, 1998). Data was evaluated based on how recent it is, for what purpose it was gathered, as well as how similar the web sites studied or used as examples, are to The Building Centre's site.

3.2.1.2 Data Analysis Methods

To analyse the available data, we 'critically evaluated and compared the relative plausibility of several [theories]' (Singleton, 1998). Content analysis was also used to analyse the available data. This involves defining a set of categories, defining and then sampling available data that belongs to these categories, and quantifying the categories by methods such as their frequency of occurrence or stated importance.

3.2.2 Web Site Comparisons

Research through focus groups and surveys seemed impractical for researching the marketability of our sponsor's web site. The only research we could do was by comparing our sponsor's site with others that attained more successful outcomes. We compared The Building Centre with a list of sites identified by our sponsors as relevant to its endeavours and found several areas that The Building Centre could add to enhance its site.

3.2.3 Linking

There are two reasons why linking is an important aspect of marketing a web site. A link is another method in which a site can advertise itself besides using other advertised methods such as word of mouth, print advertisements, or search engines. Also, there is a correlation between linking and search engine ranking, where the higher number of relevant links to and from a site gives it a higher ranking of relevance on certain types of search engines.

3.2.3.1 Current Links

The amount of traffic to a web site can be greatly influenced by how many other sites create a link to the site. For this reason, we decided to assess the 'Useful Links'

page of The Building Centre's site. We visited the sites of the organisations listed on this page, and created a spreadsheet with the following fields:

- Organisation
- Web site address
- Links page?
- Links back?
- Operational?
- Notes

This allowed us to easily view which sites were linking back to The Building Centre.

3.2.3.2 Increasing Links

Because The Building Centre had a substantial number of links to their web site, our focus was not to create a list of links, but rather improve upon the existing ones. We emailed the administrators of these sites and requested that they link themselves to The Building Centre's site in return. The template email we sent to the organisations can be seen in Appendix C. The web sites we contacted are shown in Appendix D. This not only increased new avenues for users to find The Building Centre's site, but it also helped with the search engine ranking system explained previously.

3.2.4 Print Advertisements

Print advertisements are another way of advertising web sites. One such method is advertisements through print media. Large professional companies often print their web addresses on anything made public, such as flyers, letterheads, business cards, and pamphlets or printed information booklets etc. The Building Centre took this opportunity and printed advertisements on banners, mouse mats, and pamphlets. We observed, however, that its URL was not printed on other informative locations, such as the 'Information Services' form. This form, given to walk-in customers of The Building Centre, did not have the company's URL printed anywhere on it, yet this form was one of the most widely distributed forms in the building. Of the pamphlets that had The Building Centre's URL printed on them, the location of the URL was hidden away in the

back of the pamphlet. This was not an optimal location to place a URL, because the back of pamphlets is the section of any brochure that is last to be seen, or never seen at all.

3.2.5 Search Engines & Web Directories

A strong search engine presence is vital for any web site if it hopes to increase its visitor levels, and keep the number of new visitors high every month. To help The Building Centre's site rise to the top in search engine listings, we submitted the site to major search engines, as well as numerous other, less popular, but still valuable, search engines. We made suggestions for web site optimisation and submission to facilitate a strong showing in most search engines well into the future.

3.2.5.1 Submission

Submitting The Building Centre web site to as many search engines as possible was a very important and necessary step. While being listed on a search engine does not guarantee a favourable ranking, it does mean that the search engine in question knows that a site exists. This means that the site has a chance, depending on its rank on the particular search engine, to appear when relevant keywords are searched for (Danny Sullivan, 2004). Our progress in ensuring a good search engine ranking for The Building Centre's site is discussed in the following section.

We submitted The Building Centre's web site to many different search engines and web directories. Some of these already listed The Building Centre's site; some did not. Regardless, submitting the site to them was beneficial, as it led to the search engines looking at the site again, or for the first time.

3.2.5.2 Optimisation

We suggested changes to The Building Centre web site to optimise its potential search engine rankings, and to further increase its exposure by advertising on search engines, which is discussed in the following section. There is no magic formula for making a site search-engine-friendly, as different search engines have different approaches to ranking web pages. However, after looking at The Building Centre site and various search engine positioning strategies, we decided that we would concentrate

on two major areas: keyword choice and placement, and the web-crawler-friendliness of the site.

We determined a list of keywords that were both popular and unique enough to give The Building Centre's site an advantage. We did this by looking at several keyword usage statistics. One was which construction-industry-related keywords were most popular on the major search engines, such as AltaVista and MSN. Another was how effectively keywords were used on The Building Centre home page. To find these and many other statistics, we used the Bruce Clay web site. To find out how The Building Centre ranked for individual keywords on major search engines, we manually searched for these keywords on seven search engines, including Google, MSN, and Yahoo, as well as some of their UK-only versions.

Because many major search engines such as Google use web-crawlers to search for and update their information on web sites, it was pivotal that The Building Centre's site did not contain any 'search engine stumbling blocks' (Sullivan, 2004). Because some crawlers cannot read image map links, we made sure that The Building Centre's site had HTML links, so the crawler can easily explore the entire site. Frame links are another form of linking that some search engines may not be able to follow, so we made sure that an alternative, such as META tags was always available (Sullivan, 2004).

3.2.5.3 Advertising

We examined the possibility of advertisements on the two main search engine networks: Google AdWords service provided by Google, and the advertising service provided by Overture. The advertisements were pay-per-click affairs and ensured that as long as The Building Centre is the top bidder on certain keywords, its site will always show up as a sponsored site at the top or top right of the search results whenever the particular search words are queried. These ads would not in any way affect The Building Centre's ranking with the search engine, but they would significantly increase its exposure.

4. Data & Results

We focused on two major areas for data collection: an assessment protocol designed to measure user-friendliness and an evaluation of the web site marketing.

4.1 Assessment Protocol

Our assessment protocol gave us information relative to the design of the web site. Through interviews, web user surveys, and web site assessments, we were able to gather key data, which gave us an idea of areas in the site that needed attention and areas that performed well and didn't need to be looked at.

4.1.1 Interviews

Our interviews with the staff presented new viewpoints and ideas about the navigation, organisation, and marketing of The Building Centre site. Many of the staff members had similar answers to our questions and comments. Each interview was valuable because staff provided us with unbiased opinions of the site, both as employees of The Building Centre and as web users.

4.1.1.1 Navigation

Employees had fairly consistent opinions regarding the site's navigation. The site is well mapped out with a main navigational bar that appears constant throughout the web site. That is an important aspect of web navigation because if the bar is consistent in location and appearance on all pages, it is difficult for a user to become disoriented within the site.

There are some areas of the navigation where there was room for improvement. According to Jackson Hunt of The Building Centre Trust, the linking between the site of The Building Centre and the Trust is not as clear as it should be. On the home pages of both sites, a very small text hyperlink is the only connection between the two sites. Because the two organisations are strongly interrelated, Mr. Hunt feels that linking between the two should be more meshed. Guy Burrows, Sales Manager, felt the navigation to the product search was very limited. Since the product search is an

important part of the site and one of the main resources for users of the site, it should be easier to find.

4.1.1.2 Organisation

The staff shared a variety of attitudes about the organisation of The Building Centre's web site. Interviews yielded helpful and constructive criticism of layout and content. In terms of the home page, which is a good representation of the other pages in the site, most of the staff felt it was too plain and boring. There was a surplus of white space, the colours were boring, the text was too small and there was an abundance of information crammed together in a very small space. According to Neil Martin, Market Research Manager, the site did not contain enough visuals, graphics, and pictures. The site lacked a certain 'sexiness', in his words. Craig Horn, Information Services Manager, felt the product information search, which was referred to previously, should be user-friendlier and an internal search engine should be implemented into the site.

4.1.1.3 Marketing

During the interviews, employees conveyed their opinions regarding the current marketing strategies, and offered their ideas for better ways to market the web site. Advertising the Bookshop's products through Amazon.co.uk generated most of the revenue for The Building Centre. The staff provided us with several additional ideas about improving the marketing aspect of the web site. Roshni Kara, Commercial Manager, and Colin Ashby, Bookshop Manager, both suggested improving the keywords that might be used in searching for the Bookshop, since the Bookshop's products generated most of the income for the Centre.

Colin Henderson, Chief Executive, would like to see more homebuilders linked to the site. He felt if more homebuilders use the site, more professionals might want to advertise their products on the web site, thus generating more possible revenue. Many people noted since the site was launched in the spring of 2003, there has been less daily traffic in and out of The Building Centre's facility. One possible cause of the decrease in visitors is the instatement of congestion charges in central London in 2003. While this is

a probable contributor, many employees believe the decrease in traffic to the building is in great part due to the web site.

Mr. Henderson would like the web site to be a tool used to attract more people, specifically professionals, to the Centre. He and Ms. Kara also want to see more direct advertising on search engine networks such as Google and Overture.

Craig Horn and Guy Burrows offered opinions regarding the marketing of the web site as well. Mr. Horn felt 'word of mouth' would be an excellent way to attract new visitors to the web site and that email campaigns could spread the word. He agreed with Mr. Henderson's desire to sell more advertising space on the site as well. Mr. Burrows felt the web site should have more chargeable information on it, meaning services the visitor could use from the site and pay for. He also felt all printed media (i.e. posters, banners, etc.) should have The Building Centre's site URL address on it.

Claire Catterall and Ursula East both felt there is not enough attention brought to the Conference and Meeting Facilities of The Building Centre. The conference facilities are income generators; Ms. Catterall and Ms. East felt the organisation could be losing money by not focusing more attention on them. A good way to do so would be to advertise the facilities towards not only professionals holding meetings, but also homebuilders.

4.1.2 Web User Surveys

Our survey of web users allowed us to better understand the feelings of users of The Building Centre's site. A great deal of the feedback we received from the user surveys was similar to the opinions provided by the staff. However, when we began compiling our survey, some of the results and general opinions of the web users surprised us.

4.1.2.1 Survey Results

The information collected through the web user survey reflected many different opinions regarding the user-friendliness aspects of the site (Appendices E & F). A majority of the 50 users surveyed rated navigation of the site as good. Approximately 56% found all navigation buttons labelled clearly and over eighty percent found them

easy to use and locate. The feedback for the navigation bar was similar: 82% of the users found it to be easy to use, interpret, and locate. Users are not getting lost in the site, however 78% of them answered 'yes' to the question 'Did you ever have to use the Back button on your web browser?'. We are attributing these results to the fact that using the Back button on a browser has become a habitual action for web users, not to poor navigation on the site. Broken links within the site did not appear to be a problem, according to our results 72% of the users did not find any. About 68% percent of the users surveyed used the product search on The Building Centre's site. The results in terms of locating the product search, 58% said it was easy to find.

The layout of the site ranked as average amongst our users. Roughly 86% of the users were able to easily locate the page with contact information, which is important. Users commented on the font size, saying it was small and frustrating to read. Yet the text proved to be clear because the colours used facilitated reading. Graphics seemed to be easy to view and useful for users. Over 90% of all people surveyed agreed that the content of the site was truthful, there were no obvious and embarrassing spelling errors and the information on the site was up to date. Overall when asked to give The Building Centre's web site a score of one-to-five (greatly disliked-to-greatly liked), 68% of all users voted The Building Centre's site to be above average according to Table 4-1.

Table 4-1 Overall Survey Scores

Score	Percentage
Above Average (score of four or five)	68%
Average (score of three)	18%
Below Average (score of one or two)	10%
No Response	4%

4.1.2.2 General Opinions

While there was great variety in survey responses, some general web user opinions became evident. When asked what changes should be made to the web sites, users said there should be more technical information links, a way to be reminded of

passwords to enter some information pages of the site and larger font used on navigation buttons. Some of the areas of the site they found to be useful included the events pages, the professional literature pages and the useful links. Some of the areas users found not to be useful included the product information search and the information regarding the layout and facilities of the Centre. One respondent noted that he would like to see information on not only building materials and products but also quality building tools. Most of the overall comments were positive. People found the site to be visually pleasing, easy to navigate and useful. Additional notes included that the online catalogue was a great display of products and it gave people exactly what they wanted. Several people praised the high quality of The Building Centre's site. Some of the negative comments were in regard to information describing the Centre's facilities as well the text size being too small for some people to read.

4.1.3 Web Site Assessment

Our web site assessment produced quantitative information about competitor sites, as well as The Building Centre's own site (Appendix G & H). There were several parts of the assessment where our evaluations of a certain area on The Building Centre's site were unanimous. Most of these presented simple 'yes-or-no' questions about aspects of the site, for example questions about navigation and organisation. The purpose of the assessment was more focused on comparing The Building Centre's site to its competitors rather than drawing conclusions about the site. In the end, we tallied our scores from the assessment, and ranked the web sites based on these scores. To tally the scores, we took the number of questions we all unanimously agreed to affirmatively and subtracted that total from the number of questions we agreed upon negatively. This resulted in The Building Centre having a total score of twelve, which tied it for fourth place. The top-scoring sites are shown in Table 4-2. A complete listing of scores and rankings for the sites can be seen in Appendix I. More specific information of our assessment, as well as comparisons to competing organisations can be found in our analysis chapter.

Table 4-2 Top-Scoring Web Sites

Web Site	Score	Ranking
National Building Specification	16	1
Barbour Index	15	2
BuildOnline	14	3
Building Centre	12	4
British Gypsum	12	4

4.2 Web Site Marketing

Linking and search optimisation were determined to be the most effective contributors to the marketing potential for The Building Centre's site.

4.2.1 Linking

To improve the awareness of The Building Centre's web site; we have increased the linking between our sponsor's and other relevant web sites. Out of the 193 web sites that The Building Centre links to, only 21 linked back. This is known as reciprocal linking. The low number of reciprocal links was the motivating factor in our efforts to contact 91 web sites and request that they reciprocate and link back to The Building Centre's web site. Only 91 web sites out of the original 193 offered a 'links page' or web page that lists related web sites. It was deemed unlikely that the sites lacking this feature would bother reciprocating links with The Building Centre. From the 91 web sites we contacted, four have responded to our requests and have linked back to The Building Centre's web site.

4.2.2 Search Engines

Our examination of search engines yielded information about how to improve awareness of The Building Centre's site through search engines. The three main steps were:

- submission of the web site to many major search engines and web directories
- optimisation of the site itself, with respect to its use of keywords both in the html code and in the introductory paragraph on the home page
- use of sponsored links to counteract some of the weaker search engine rankings of The Building Centre's web page.

4.2.2.1 Submission

To determine which search engines and web directories The Building Centre's web site should be submitted to, we looked at several prominent web sites that observe and study search engines, as well as web directories. The two main ones were www.searchenginewatch.com and www.submit-it.com. We selected all the major international search engines, as well as a selection of UK-only search engines. We checked which of these search engines and directories did not have The Building Centre's web page listed, so that we could target them first, making sure to register the site with them as soon as possible.

Of the 34 search engines found, we submitted to seventeen of them. The other seventeen were not submitted to because they charged for submission and one was not accepting submissions at the time. However, we submitted The Building Centre's web site to all but one of the search engines that did not previously list it. The list of search engines can be viewed in Table 4-3.

Table 4-3 Relevant Search Engines

Search Engine	Listed?	Submitted?
33max	Yes	No (not free)
Abacho	Yes	Yes
Abrexa UK	Yes	No (not free)
AltaVista	Yes	Yes
Alltheweb	Yes	Yes
AskJeeves	Yes	No (not free)
BBC Search	Yes	Yes
dmoz Open Directory Project	No	Yes
Dogpile	Yes	No (not free)
EntireWeb	No	Yes
Euroseek	Yes	Yes
Excite	Yes	No (not free)
GigaBlast	Yes	No (disabled)
Go	Yes	Yes
Google	Yes	Yes
HotBot	Yes	No (not free)
Infospot	Yes	No (not free)
iWon	Yes	No (not free)
LookSmart	No	No (not free)
Lycos	Yes	Yes
Mirago	Yes	No (not free)
MSN	Yes	Yes
NetLondon	No	No (not free)
Netscape	Yes	Yes
Overture	Yes	No (not free)
SearchUK	Yes	Yes
Teoma	Yes	No (not free)
The Brit Index	No	Yes
Turbo 10	Yes	No (not free)
UK Index	No	No (not free)
UK Plus	Yes	Yes
UK Searcher	Yes	Yes
Yahoo	Yes	Yes
Yahoo! Directory	Yes	No (not free)

4.2.2.2 Optimisation

We used several tools, available on http://www.bruceclay.com/web_rank.htm to evaluate the search-engine-friendliness and effectiveness of keyword usage for The

Building Centre site. A Netracker web site for The Building Centre web page, http://stats.streamingwizard.com/buildcentre/index.html, was also very useful. We also looked at the rankings of the keywords on seven major search engines.

On http://www.bruceclay.com/web_rank.htm, the 'Check Server Page Tool' is a tool that looks for any technical issues that may prevent the site from being ranked well. It showed there was a mismatch on line two of the html code, between the spider page read and the request and browser page reads (Appendix J). From the 'Keyword Density Analyser Tool', we saw that while the META description tag was numerically satisfactory, the title tag and META keywords tag were short of the recommended length (Appendix K). We also used this tool to check the average number of times keywords were listed in The Building Centre page's META keywords tag. The most popular keywords were *home improvement*, *house building*, *architecture books*, *construction books*, and *building products*. Other, more specialised keywords, like *building product information*, *building product brochures* and *conference venue building* were not popular. The list of keywords and their popularity can be viewed in Table 4-4.

Table 4-4 Keyword Popularity

Current META Keywords	Searches Per Day on Major Search Engines
building products	523
building product information	0
building product brochures	0
building books	135
construction books	590
diy books	10
interior design books	70
architecture books	658
house building	2373
home improvement	162,275
construction reports	120
conference venue building	0
Possible META Keywords	
building product exhibition	0
building information	54
construction product information	0
construction products	264
construction information	67

Using http://stats.streamingwizard.com/buildcentre/index.html, we found variations of the phrase *the building centre* or *the building bookshop* and specific product and brand names made up almost all of the keywords that resulted in a referral to The Building Centre's web page (Appendix L). Google, Yahoo, MSN, and AOL were among the leading search engine referrers (Appendix M).

By manually searching for keywords used on The Building Centre homepage on major search engines, we were able to record how the web page ranked for individual keywords. We also noted for which keywords The Building Centre bought sponsored links (Appendix N).

4.2.2.3 Sponsored Links

We looked at which keywords The Building Centre had sponsored links for on the major search engines. We also examined the cost of buying sponsored links on several of the major search engines, such as Google and the Overture network.

On a few search engines, The Building Centre already had sponsored links for a couple of keywords for which The Building Centre was ranked poorly. However, there were no sponsored links for many other keywords that were ranked poorly.

Both Google and Overture have pay-per-click programmes. Google has AdWords, which has a $5.00 activation fee, and charges anywhere from $0.05 – $50 every time a user clicks on one of the sponsored links to your web page. The exact charge is determined in a bidding system, where the highest bidder for a specific keyword has their site appear as the first sponsored link whenever that keyword is searched, with the second-highest bidder appearing second, and so on. A daily budget can be set from $0.05 to as high as desired.

Overture has a similar system, with a £60 activation fee that goes toward paying for the sponsored links, a minimum charge of ten pence per sponsored link, which is paid every time a user clicks on it, and a minimum monthly spend of £20. There is also an optional 'Fast Track' service for an extra £79 that offers assistance with search term selections, web site titles and descriptions, budget management, tracking of URLs, and a turnaround period of three business days instead of the standard ten.

4.3 Web Site Metrics

By collecting data from http://stats.streamingwizard.com/buildcentre/index.html, a Netracker web site which specifically tracks The Building Centre web page's statistics, we gathered data on which search engines have the most referrals, as well as which keywords result in the most referrals to the page. Using Alexa rankings, we gained valuable insight into how The Building Centre's site compares to other construction industry sites in terms of visitor levels.

4.3.1 Alexa Rankings

Alexa is an amazon.com company that provides a free web-page-ranking service. On http://pages.alexa.com/prod_serv/traffic_learn_more.html, the rank of individual web pages is explained as being 'based on three months of aggregated historical traffic data from millions of Alexa Toolbar users and is a combined measure of users (which is *reach*) and page views'. Alexa computes the *reach* and number of *page views* for all sites on the Web on a daily basis. The overall Alexa traffic rank is based on the mean of these two quantities averaged over a three-month period.

Reach is the percentage of Internet users that visit a specific site. For example, if a site has a reach of 50%, it means that of a random sampling of one million Internet users, five hundred thousand of them visited the given site. *Page views* is the average number of unique pages on the site viewed daily by users (Alexa, 2004).

In the Alexa ranking system, the more popular a site is, the lower its rank is numerically. For example, the top ranked web site, www.yahoo.com, has a rank of one. The Alexa rankings for The Building Centre web site are shown in Table 4-5. This table reflects a steady improvement in the ranking during our project.

Table 4-5 The Building Centre's Alexa Ranking

Date	Rank
15/03/04	746,527
22/03/04	657,460
29/03/04	543,782
05/04/04	287,695
12/04/04	176,350
19/04/04	148,181
26/04/04	137,342

5. Analysis

We conducted an in-depth investigation of the collected data to make recommendations regarding The Building Centre's web site. This investigation included interpreting the results of our assessment protocol (interviews, surveys, and assessments). We also examined the impacts of marketing and search engines, with special regard for keywords. We continually compared The Building Centre's site to those of its competitors throughout our analysis. By analysing our data, we drew out all the necessary information to answer our research questions that we established during the early stages of our project.

5.1 Weakness Areas

One of the main aspects of our project goal was identifying the areas of the web site that were in need of strengthening by analysing the results from our interviews, surveys, and web site assessment. By identifying which features were minimising the effectiveness of The Building Centre's site, we will be able to suggest solutions to remediate the problem areas.

5.1.1 Navigation

There were not many negative comments in our collected data about the navigation of the web site. However, because the navigation was rated well does not mean there is no room for improvements, such as linking back and forth from The Building Centre and The Building Centre Trust. Because one organisation is a subsidiary of the other, many people we spoke with from the staff agreed the two should be more intertwined on the World Wide Web.

Our data has also made it apparent the product information search is one of the most important features on The Building Centre's site. Nevertheless, the navigation to this feature is inadequate, leaving some people confused as to its whereabouts. If most users of the site have found the area to be useful, the location of that area should be more noticeable.

5.1.2 Organisation

The layout, content, and organisation of The Building Centre's site proved to be average with much room for improvement. It was clear through our surveys and interviews the overall layout of the site was rather plain and needed more excitement. The site lacks pictures; many respondents suggested having pictures of employees on the content page so customers can put a name to a face. There was also agreement on the web site content. The font appears to be far too small. It may be substantial for the average web user; people with poor vision, however, could have trouble reading some of the minute text.

5.2 Comparisons to Competition from Protocol

The findings from our assessment protocol showed how The Building Centre's web site compared to the competition. Fourth place out of twenty sites placed The Building Centre's site high on the list compared to its competitors, yet there is still room for improvement in terms of the areas that were rated negatively on The Building Centre's site.

5.2.1 Strengths

The Building Centre's site had several strong aspects compared to the competitors. Based on the assessment protocol we administered, we determined the web site to be strong in the areas of organisation and information content. These two categories helped place The Building Centre high in our assessment protocol rankings, as they are extremely important for the success of any web site.

5.2.2 Weaknesses

Conversely, The Building Centre's site compared poorly to the other sites in certain areas. These areas were font sizes, cluttered pages, and overly sophisticated setup for product search. Our assessment indicated that the web site's font size was too small. Smaller font size made it difficult to read the text and to focus on the information conveyed within it. Also, many of the web pages on The Building Centre's site seemed cluttered with too much information and the densely packed web pages often detracted

any of us from wanting to read through the information and gain any knowledge. The third weakness was the overly sophisticated layout of the site. While the navigation was good, it often got confusing when it came to the ability to search for a particular product. Instead of listing out certain products that people would look up, there exist drop down menus that could become confusing for people who were not well versed with computers and Internet searches.

5.2.3 Overall Comparisons

Compared to its competitors, The Building Centre ranked very well overall. While small issues such as font size diminish The Building Centre's ranking among other web sites, its strong organisation and information content made up for it and placed it in a respectable position. Of course, there is always room for improvement, and from the knowledge we gathered from our assessment protocol, we can already spot small flaws in The Building Centre's web site.

5.3 Reciprocal Linking

Examining the number of reciprocal links before our project suggested that The Building Centre had not exploited the full potential of gathering visitors via links from other web sites. To remedy this problem, we have contacted the necessary webmasters for each of the ninety-one web sites and received four replies. While the numerical value of four is very low compared to the ninety-one web sites we contacted, it does not necessary follow that there will be no significant impact. There now exist four new avenues through which people browsing the web can find and access The Building Centre's web site.

5.3.1 Responses from other Organisations

Out of the four responses we received concerning reciprocal linking, all were willing to accept our requests and link back to The Building Centre's web site. While this number remains small, we hope that in the future, more companies will read our template email and further agree to reciprocate our links to their web sites.

5.4 Search Engine Optimisation

The Building Centre's web site was not as search-engine-friendly as we wanted it to be. The use and number of keywords was not optimal, and placement of sponsored links on search engines could have been improved upon.

5.4.1 Web-crawlers

The Building Centre's home page had some roadblocks for web-crawlers that were stopping them from viewing the entire web site. The main obstacle was an inconsistency starting on line two of the HTML code, between how the home page was read in a sample web spider read and how it was read by request and browse reads. This was potentially causing web spiders to skip the rest of the home page, resulting in omission of most of the keywords and information on the page. If this was happening, the ranking on the engine that the web spider belonged to was suffering needlessly. However, this may not have affected most web-crawlers, and could be fixed by a simple reorganisation of the HTML code on The Building Centre's home page.

5.4.2 Keywords

There were not enough keywords used on The Building Centre's home page and some were not used as often as recommended. Also, the introductory paragraph on the home page did not contain enough keywords in the beginning of the paragraph. Keywords that are more popular on search engines were not emphasised by either prominent placement or repetition. Finally, some popular relevant keywords, such as 'building product exhibition' and 'construction product information' were left out completely.

5.4.3 Search Engine Rankings & Sponsored Links

The Building Centre's rankings varied greatly, depending on the combinations of keywords and search engines. However there were some patterns. For example, the site ranked in the top ten in all search engines tested for the following keywords: 'building product information', 'building product brochures', and 'building product exhibition'. Unfortunately, according to estimates from the daily keyword activity tool on

these three keywords are rarely searched for, which is to be expected, since they are rather specialised. More popular keywords, such as 'home improvement', 'house building', 'architecture books', and 'building products' showed much lower rankings for The Building Centre, with only a few top one hundred showings. This was also not unexpected, as the more popular keywords receive attention for many more web sites, making the task of getting a good ranking for these keywords much more difficult. For the more popular keywords, the impact of optimisation and proper usage seem to pale in comparison to how popular a particular site is, judging from how many visits it gets and how many relevant sites link to it. Table 5-1 shows the rankings on MSN and Yahoo and their UK-only counterparts, of the current META keywords used on The Building Centre web site. Ranks greater than 500 were shown cut off at 500 to make the table more legible.

Table 5-1 Current META Keyword Rankings

42
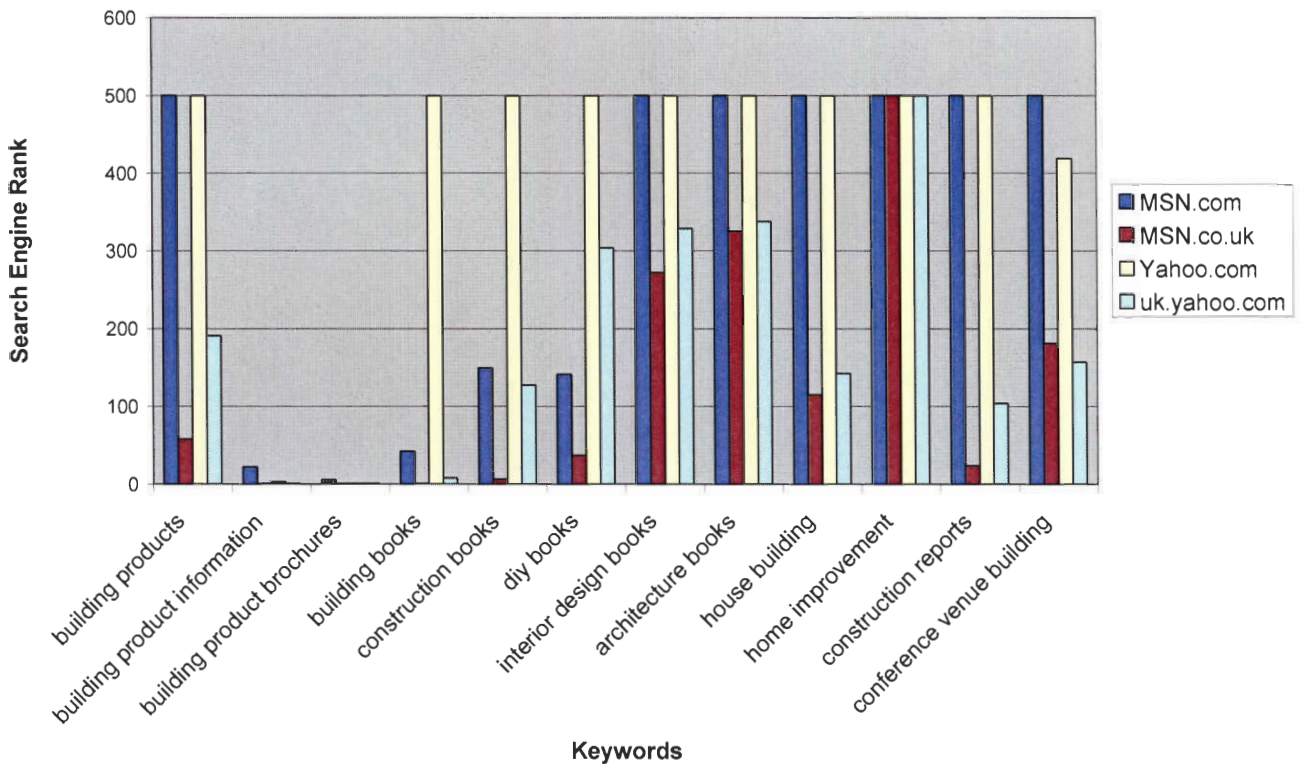
6. Conclusions & Recommendations

Analysis of our data leads us to conclusions regarding the weakness areas of The Building Centre's web site and how they can be remediated to provide the user with a more proactive web site. We have identified the site's major weaknesses in navigation, organisation, and marketing. Furthermore, we have constructed recommendations for The Building Centre that will result in the enhancement of its site.

6.1 Weakness Areas

Overall, The Building Centre has a strong web site. The employees of The Building Centre were complimentary towards the current site, which was launched in the spring of 2003, saying it was quite an improvement over the previous one. Our assessment protocol ranked The Building Centre's site in a tie for fourth place among twenty web sites, and our user surveys contained mostly positive responses. Weakness areas did surface, however, and identifying them in a constructive manner will be of great use to The Building Centre.

6.1.1 Navigation

Out of all the aspects of the site, navigation surfaced as the best, having few weaknesses. According to the results of our own assessment of the web sites, The Building Centre's site was not difficult to navigate in comparison to competing organisations. A small percentage of our surveyed users said they had trouble finding their way around the site or that they became lost in the site. The Building Centre maintains a site in which most users complimented the ease in navigation, stating it was simple to understand.

With regard to the Product and Information Search, which a strong majority reported using, the feedback received was not as positive as the general navigation. More users said it was more difficult to find the product search than to understand the navigational tools and controls of the site.

6.1.2 Organisation

The organisation of the web site did not rate as highly as the navigation. There was positive feedback about the site's organisation; our assessment protocol, however, identified some areas of weakness.

Staff interviews offered employees the opportunity to share their opinions of The Building Centre's web site. The abundance of white space on the pages was mentioned frequently during the interviews; all of the available area on the page is not being put to use. Having so much white space in the site causes the pages to appear cluttered. Clutter was another weakness identified during interviews. Another contributing factor to clutter is the small font size on The Building Centre's site. The small font causes the text to appear dense, and could overwhelm potential users.

The web user survey results showed generally positive feelings regarding the site organisation. The large majority of respondents liked the layout of the site, found the text easy to read, and felt the font was the appropriate size. Some individuals commented that the layout was frustrating, and several respondents were concerned that the font size was too small. Overall, it appears that the web users had concerns similar to those of The Building Centre's employees.

The web site assessment was structured to identify areas of weakness in The Building Centre's web site compared to competitor sites. While The Building Centre's site ranked very well, a few weakness areas were indicated. The main organisational weakness that was indicated by the assessment was the lack of a site glossary. This would assist laypeople in their understanding of industry terms that may be used on the site.

The three major organisational weaknesses that we have identified are the abundance of white space, cluttered web pages, and the tiny font size. In the following section we will make recommendations for remediation of these weaknesses.

6.1.3 Marketing

The marketing of The Building Centre's web site has several areas in need of improvement. While The Building Centre's web page links to 191 web sites, only 25 of them currently link back. The number of relevant sites linking to The Building Centre

site needs to be increased, because this number influences not only the number of users that visit the site through the links, but also the site's ranking on most search engines.

The ranking of The Building Centre's web site on major search engines is also not as high as it could be. This is mainly due to sub-optimal keyword selection and usage, both in the HTML code and the introductory paragraph on the home page. Also, the only sponsored links The Building Centre own on major search engines is for the keyword *building products*. Finally, there are no advertisements on The Building Centre's web site. While this does not negatively affect the site's popularity, and may even make it better, as users often do not want to see flashy banners advertising products they most likely don't need, it is a major source of revenue that is not being exploited.

6.2 Suggestions for Remediation

After studying our conclusions, we have determined several recommendations for The Building Centre. These recommendations span the breadth of our project. Areas discussed include site indexing, sample pages, continuing linking, search engines, and advertising. The implementation of these recommendations will result in an enhanced web site for The Building Centre.

6.2.1 Navigational Aids

Although few people get lost in The Building Centre's site, better navigational aids may prove to be useful tools for the user. Using navigational maps or indexes to give the user a broad picture of the web site in its entirety may reduce the number of visitors that become disoriented. Another tool commonly used by web designers is a frequently asked questions (FAQ) page. This tool provides answers to commonly asked questions about where to locate information. This would reduce the amount of time a user spends seeking something on the site, because a question from a previous user may be similar in nature. Although a majority of users did not have a problem finding the Product and Information Search, a clear link should be placed on the homepage to this tool, because most users not only used it but also found it to be the strongest feature of the site.

6.2.2 Sample Pages

Sample pages were been developed to give a visual representation of our suggested modifications to improve the user-friendliness of their web site. Many of these suggestions were compiled from our web site assessment, staff interviews, and general feedback from the survey we conducted with visitors of The Building Centre and its web site. The improvements include an internal site search engine that helps quickly locate information through the use of keywords typed in by a user, larger font size, a secondary menu, and condensed text. All four of these improvements are evident in the sample page of the home page of The Building Centre web site. Sample pages were been created for the Home Page (Appendix O), Product Exhibitions Page (Appendix P), and Published Reports Page (Appendix Q).

6.2.3 Continuing Linking

At the conclusion of our project, we had increased reciprocal linking with four new links. We consider this a reasonable first step in terms of increasing reciprocal linking. After our project has concluded, we expect that web masters will continue to respond and reciprocate links back to The Building Centre's site. Also, we recommend that The Building Centre continue to increase the number of links to its 'Useful Links' page and continue its efforts at contacting other organisations and companies to develop new reciprocal links.

6.2.4 Search Engines

Effective use of keywords combined with appropriate use of sponsored links on search engines will allow The Building Centre's web site to rise in outside search engine rankings, helping to increase hit and visitor levels. Being listed on as many search engines as possible, and submitting the site every few months as well as after every major update, can also lead to an increase in popularity.

Of the 34 search engines originally targeted for submission, seventeen charged a fee, and therefore were not submitted to. Submitting to these search engines is not pivotal, because The Building Centre is already registered with them, and submission

itself will not improve the site's ranking. However, if The Building Centre is willing to pay the fees, it would still be beneficial to submit to some of these search engines, especially AskJeeves, Excite, LookSmart, and Teoma, as well as some UK-only search engines, such as Abrexa UK. Paid submissions to these search engines would mean a much faster turn-around time, as well as a guarantee that the search engines will update their information on The Building Centre's web site regularly for a year. For this reason, paid submissions are usually worth the fee, but they will do little if a site's keyword usage is not optimised.

The Building Centre site's keyword usage can be improved in several ways. To increase the total number of keywords and add move variety to them, as well as to improve The Building Centre's rankings on search engines, the following should be added to the keywords in the HTML code: *building products exhibition, building information, construction product information, construction products,* and *construction information.* The introductory paragraph can be re-written to emphasise the most popular keywords, by placing them at the start and repeating them. According to research, *home improvement, house building, architecture books, construction books,* and *building products* are searched for most often on major search engines.

The current introductory paragraph reads:

'Welcome to The Building Centre, the worlds largest permanent exhibition and single source of information for the construction industry. It is the established focal point covering all aspects of architecture and design, construction and planning, home improvement, DIY and self build. For more than seventy years it has remained at the heart of the industry and today plays host to many important events, receiving more than 100,000 visitors and delegates throughout the year.'

The first two sentences, which are pivotal, can be rearranged to appear as the following:

'The Building Centre is the world's largest exhibition and source of information covering all aspects of home improvement, DIY and self build, construction and planning, architecture and design, such as construction and building products as well as architecture and construction books.'

To further emphasise the keywords, they can be moved toward to the very beginning of the paragraph, by using this sentence:

'The Building Centre covers all aspects of home improvement, DIY and self build, construction and planning, architecture and design, such as construction and building products as well as architecture and construction books. It is the world's largest exhibition and source of information for the construction industry.'

This approach makes the keywords easy to see, but moves the phrase 'the world's largest exhibition and source of information for the construction industry' into the second sentence, which may or may not be acceptable.

While keyword usage and placement are important, they may not be enough to push The Building Centre's web site to the top of the rankings on major external search engines, especially for keywords such as home improvement and house building, for which it is ranked rather poorly. This is because these are very popular keywords and there are literally millions of web sites that contain them. It may simply take too long for the ranking to move up to the top. In cases like these, buying sponsored links is a valuable alternative.

While they can be very effective, having too many sponsored links may be costly. Thus, we recommend that The Building Centre just concentrate on buying sponsored links for specific keywords on the Google.com and Overture advertising networks, as they offer reasonable prices, and are used by many other major search engines, such as MSN, Yahoo, and AOL. Using sponsored links would make the greatest impact on some of the most popular keywords, such as *architecture books, home improvement* and *house building,* as well as on some of the less popular, but still significant keywords, such as *construction products* and *building books.*

6.2.5 Advertising

Over the time period we have been at The Building Centre, we have used tools such as rankings of web sites with high traffic on the Alexa web site, as well as specific data regarding hits, visitor levels, and number of unique visitors. These tools have shown

an increase in visitors to The Building Centre's site. The Building Centre can use these numbers to their advantage by contacting material manufacturers and suppliers about purchasing advertising space on the site. A site that provides information to the building community would be an ideal place for these companies to advertise, especially one where the numbers of visitors is increasing monthly. The Building Centre has statistics to support this, and should capitalise on them. Selling advertising space would be a new form of revenue for The Building Centre.

7. Appendices

Appendix A: Web User Survey

Description: We greatly value your input regarding The Building Centre's web site. The information and opinions that you furnish will be used to assess and enhance the web site.

Directions: After/while browsing the web site, please answer the following questions about the web site.

For a question with a (Yes / No) choice, please circle your response.

For a question with a numerical scale, please circle a number.

For a question with boxes to select, please check the appropriate box(es).

Background:

How did you encounter The Building Centre's web site? _____

_____

How frequently do you use The Building Centre's web site?

      1 ------ 2 ----- 3 ---- 4

      rarely monthly weekly daily

Do you access The Building Centre's web site from home? (Yes / No)

Do you access The Building Centre's web site at work? (Yes / No)

Navigation:

Were the navigation buttons easy to…   locate?

           easy 1 – 2 – 3 – 4 – 5 difficult

      use?

           easy 1 – 2 – 3 – 4 – 5 difficult

      understand?

           easy 1 – 2 – 3 – 4 – 5 difficult

Is the navigation bar easy to use?

       easy 1 – 2 – 3 – 4 – 5 difficult

Is the navigation bar easy to understand?

       easy 1 – 2 – 3 – 4 – 5 difficult

How are the navigation buttons ordered?

     ☐ Alphabetical

     ☐ Importance

     ☐ Random

     ☐ Other _____

Are all navigation buttons clearly labelled?

       unclearly 1 – 2 – 3 – 4 – 5 clearly

Did you ever get lost in the site? (Yes / No)

   If so, when? _____

Did you ever need to use the back button on your browser? (Yes / No)

Did you encounter any broken links? (Yes / No)

Search Methods:

Was the site search engine easily found?

       easy 1 – 2 – 3 – 4 – 5 difficult

Did you use the search engine? (Yes / No)

Organisation:

Did you like the layout of the site?

       greatly disliked 1 – 2 – 3 – 4 – 5 greatly liked

Were you able to locate contact information for The Building Centre? (Yes / No)

What changes, if any, would you like to see made to the site's layout? _____

_____

_____

_____

Content:

Was the text easy to read?

      easy 1 – 2 – 3 – 4 – 5 difficult

Was the font the appropriate size?

      too small 1 – 2 – 3 – 4 – 5 too large

Did the colours used facilitate reading?

      facilitated 1 – 2 – 3 – 4 – 5 hindered

Were graphics easy to view?

      easy 1 – 2 – 3 – 4 – 5 difficult

Were graphics useful?

      useful 1 – 2 – 3 – 4 – 5 not useful

Did the content appear accurate and truthful? (Yes / No)

Were there any obvious spelling errors in the site? (Yes / No)

Was the site glossary…   easy to find? (Yes / No)

                                useful? (Yes / No)

Is the web site's content current and up to date? (Yes / No)

How often does it appear that the web site is updated? _____

Which areas of the site, if any, were not useful? _____

Which areas of the site, if any, were especially useful? _____

Which areas of the site, if any, contained incomplete information? _____

_____

Are there any areas that you would have liked to see covered in the web site, which

    were NOT covered? _____

_____

_____

Overall:

Give the web site an overall score.

      dislike 1 – 2 – 3 – 4 – 5 like a lot

Reasons for overall score: _____

_____

Appendix B: Web Site Assessment

Pretest:

Identify the number of clickable areas (links) on the web page by visual inspection.

_____

Navigation:

Is the navigation placement consistent throughout the site? (Yes / No)

Is there a clearly marked link back to the home page? (Yes / No)

Does every page make it clear which web site you're in? (Yes / No)

How are the navigation buttons ordered?

        ☐ Alphabetical

        ☐ Importance

        ☐ Random

        ☐ Other _____

Is a 'Back to Top' link used on longer pages? (Yes / No)

Are all navigation buttons clearly labelled?

        unclearly 1 – 2 – 3 – 4 – 5 clearly

Did you ever need to use the back button on your browser? (Yes / No)

Did you encounter any broken links? (Yes / No)

What is the maximum page depth? _____

Can pages be bookmarked? (Yes / No)

If an external link is selected, does the page open in a new window? (Yes / No)

Search Methods:

Is there a site map? (Yes / No)

Is there a site index? (Yes / No)

Is there a site search engine? (Yes / No)

Organisation:

Is there contact information for the organisation? (Yes / No)

Does page size exceed window size? (Yes / No)

Is the layout consistent between pages? (Yes / No)

Is the layout cluttered? (Yes / No)

Do you need to scroll horizontally? (Yes / No)

Do you need to scroll more than two pages vertically? (Yes / No)

Content:

Which font(s) is/are used?

       ☐ Times New Roman

       ☐ Arial

       ☐ Courier New

       ☐ Other _____

What is the text size? _____

Are colours consistent? (Yes / No)

Did all graphics load properly? (Yes / No)

Do the pages include introductory text? (Yes / No)

Are there any obvious spelling/grammar errors in the site? (Yes / No)

Is there a site glossary? (Yes / No)

Does the web site currently need to be updated? (Yes / No)

When was the last time the web site was updated? _____

Checklist:

Are page layouts consistent throughout the site? (Yes / No)

Are page titles consistent with link names? (Yes / No)

Do all headers have consistent syntax, capitalisation, and punctuation? (Yes / No)

Are bullets the same style throughout the site (ex. circles/diamonds)? (Yes / No)

Are link colours consistent from page to page? (Yes / No)

Are link colours consistent with web conventions: blue for nonvisited links, green or
    purple for visited links? (Yes / No)

Overall:

    Give the web site an overall score.

            dislike 1 – 2 – 3 – 4 – 5 like a lot

Reasons for overall score: _____

_____
_____
_____

Appendix C: Email Template

Dear Sir/Madam,

Your company's web site currently appears on the useful links section of our website - http://www.buildingcentre.co.uk/info/links_tradeasso.asp. Our 'Useful Links' pages are some of the most popular on our site.

We will be happy to keep this link on our site indefinitely; all we ask is that you reciprocate this link on your web site. Our address to link is http://www.buildingcentre.co.uk. To ensure your hyperlink is not removed from our site, please let us know when you have done this.

The Building Centre is an information provider and the world's largest permanent exhibition centre for the construction industry. We receive over 2,000 visitors through our doors every week and over 10,000 unique visitors to our web site every month including self builders, architects, contractors, interior designers, manufacturers, etc.

We welcome you to visit our web site and discover the wealth of information and services for yourself.

If you have any questions, please do not hesitate to contact us.

Sincerely,

Nathan Chin
Kevin Gay
Alex Perry
Kathleen Powers

The Building Centre's Web Site Enhancement Team
buildingcentre@wpi.edu

Appendix D: Web Site Contacts

Organisation	Web site	Contact Email	Reciprocated?
Aboricultural Association	www.trees.org.uk	andrewm@ceramfed.co.uk	
Aluminium Federation Ltd	www.alfed.org.uk	info@conservationfoundation.co.uk	
APA- The Engineered Wood Association	www.apa-europe.org	UNRELATED	
Association of Consulting Engineers	www.acenet.co.uk	info@plumbers.org.uk	
Association of Planning Supervisors	www.aps.org.uk	info@instituteofroofing.org.uk	
	www.associationofplanningsupervisors.co.uk		
Association of SelfBuilders		communications@ice.org.uk	
British Cement Association, Centre for Concrete Information	www.bca.org.uk	library@bca.org.uk	
BIAT (British Institute of Architectural Technicians)	www.biat.org.uk	mail@l-i.org.uk	
British Interior Design Association	www.bida.org	mcrma@compuserve.com	
British Photovoltaics Association	www.pvuk.org.uk	info@nicfltd.org.uk	
British Stainless Steel Association	www.bssa.org.uk	info@nfrc.co.uk	
British Wind Energy Association	www.bwea.com	ONLINE FORM	
British Wood Preserving & Damp-proofing Association	www.bwpda.co.uk	info@inst.riba.org	
Builders Merchants Federation	www.bmf.org.uk	contactrics@rics.org	
CABE (Commission for Architecture and the Built Environment)	www.cabe.org.uk	webmaster@tabservices.co.uk	
Central Heating Information Council	www.chic-info.org.uk	enquiry@bssa.org.uk	
Centre for Alternative Technology	www.cat.org.uk	ONLINE FORM	
Clay Roof Tile Council	www.clayroof.co.uk	andrewm@ceramfed.co.uk	
Conservation Foundation	www.conservationfoundation.co.uk	info@conservationfoundation.co.uk	
Disability Rights Commission	www.openforall.org	UNRELATED	
Electrical Contractors Association	www.eca.co.uk	electricalcontractors@eca.co.uk	
English Heritage	www.english-heritage.org.uk	UNRELATED	
Federation of Master Builders	www.fmb.org.uk		
Flat Roofing Alliance	www.fra.org.uk	info@fra.org.uk	
Guild of Master Craftsmen	www.thegmcgroup.com	theguild@thegmcgroup.com	
Institute of Architectural Ironmongers	www.gai.org.uk	info@gai.org.uk	
Institute of Plumbing	www.registeredplumber.com	info@plumbers.org.uk	
Institute of Roofing	www.instituteofroofing.org.uk	info@instituteofroofing.org.uk	
Institute of Structural Engineers	www.istructe.org.uk		
Institution of Civil Engineers	www.ice.org.uk	communications@ice.org.uk	
Interpave	www.interpave.org.uk		
Landscape Institute	www.l-i.org.uk	mail@l-i.org.uk	
Metal Cladding & Roofing Manufacturers Association	www.mcrma.co.uk	mcrma@compuserve.com	
National Institute of Carpet & Floor Layers	www.nicfltd.org.uk	info@nicfltd.org.uk	
National Insulation Association	www.ncia-ltd.org.uk	info@nfrc.co.uk	
Painting and Decorating Association	www.paintingdecoratingassociation.co.uk	ONLINE FORM	
RIBA	www.architecture.com	info@inst.riba.org	
Royal Institute of Chartered Surveyors	www.rics.org	contactrics@rics.org	

Sports and Play Contractors Association	www.sapca.org.uk	webmaster@tabservices.co.uk	
Stainless Steel Advisory Service	www.bssa.org.uk	enquiry@bssa.org.uk	
Steel Building Source	www.steelbuildingsource.com/Steel-Buildings.html	ONLINE FORM	
Stone Federation of Great Britain	www.stone-federationgb.org.uk	jane.buxey@stone-federationgb.org.uk	
The Council for Registered Gas Installers	www.corgi-gas.com	webmaster@corgi-group.com	
Timber Decking Association	www.tda.org.uk	info@tda.org.uk	
TRADA - Timber Research & Development Association	www.trada.co.uk	information@trada.co.uk	
Trussed Rafter Association	www.tra.org.uk	info@tra.org.uk	
UK Timber Frame Association Ltd	www.timber-frame.org	office@timber-frame.org	
Underfloor Heating Manufacturers Association	www.uhma.org.uk	info@uhma.org.uk	Yes
ACR Today	www.aydee.com/acr.htm	info@aydee.com	
Architects Journal	www.ajplus.co.uk/	ajplusadmin@construct.emap.com	
The Architect	www.mcdermottpublishing.com/	sharonj@mcdermotpublishing.com	
Architects Data File	www.orpdirect.co.uk/	sreed@dsl.pipex.com	
Architectural Ironmongery Journal	www.gai.org.uk/	info@gai.org.uk	
Architectural Review	www.arplus.com/	julia.dawson@ebc.emap.com	
Architectural Technology	www.biat.org.uk/	manual	
Bathroom and Kitchen Update	www.datateam.co.uk/home/home.htm	info@datateam.co.uk	
Bathrooms and Kitchens Magazine	www.bathroomskitchens.co.uk/	kirstlyv@quantumbusinessmedia.com	
BSEE	www.bsee.co.uk/	trushtonthorpe@datateam.co.uk	
Building	/www.building.co.uk/index.asp?pubCode=43	asmith@cmpinformation.com	
Building Design	www.bdjobsonline.com/	lakram@cmpinformation.com	
Building Products	www.buildingproducts.co.uk/	buildingproductspr@quantumbusinessmedia.com	
Building Services Journal	www.bsjonline.co.uk/index.asp?pubCode=45	rchristie@cmpinformation.com	
Building Specification	www.buildingspecification.com	info@tspltd.co.uk	
Build It	www.buildit-online.co.uk/	bobmcnab@btconnect.com	
Contract Flooring Journal	www.contractflooringjournal.co.uk	sales@contractflooringjournal.co.uk	
Contract Journal	www.contractjournal.com	tim.wood@rbi.co.uk	
Conservatory Magazine	www.unity-media.com/	manual	
Construction Europe	www.khl.com/magazines/ce_magazine.asp	mail@khl.com	
Construction News	www.cnplus.co.uk/	manual	
Contract Floors	www.floordata.com/	comments@floordata.com	
ERT Weekly	www.ertweekly.com/	stephenblakebrough@uk.dmgworldmedia.com	
Exhibition Bulletin	www.tsnn.co.uk/	aali@tarsus.co.uk	
Faculty of Building Journal	www.faculty-of-building.co.uk/	mail@faculty-of-building.co.uk	
Master Builder	www.fmb.org.uk/	fmbon-line@fmb.org.uk	Yes
Northern Builder	www.northernbuilder.co.uk/	info@northernbuilder.co.uk.	
PHAM News	www.phamnews.co.uk/	info@phamnews.co.uk	
Plumbing	www.plumbers.org.uk/	info@plumbers.org.uk	
Salvo	www.salvoweb.com/	manual	Yes
Wet News	www.web4water.co.uk/	webmaster4water@turret-rai.co.uk	
Whats New in Building	www.wnibonline.com/	mpennington@cmpinformation.com	
Home Building & Renovating Show	www.homebuildingshow.co.uk	sarah.morgan@centaur.co.uk	Yes
National Construction Week	www.ncw.org.uk/	info@ncw.org.uk	
City and Guilds	www.cityandguilds.org/	enquiry@city-and-guilds.co.uk	

Appendix E: Web User Survey Results

Background					
	Rarely	**Monthly**	**Weekly**	**Daily**	**NR**
How often do you use the Building Centre web site?	20	22	3	1	4
	Yes	**No**	**NR**		
Do you access The Building Centre web site from home?	32	16	2		
Do you access The Building Centre web site from work?	31	19	0		

Navigation	**1**	**2**	**3**	**4**	**5**	**NR**			
Were the navigation buttons easy to…									
(easy 1-2-3-4-5 difficult)									
Locate?	31	9	5	3		2			
Use?	30	10	6	1		3			
Understand?	29	13	3	3	1	1			
Is the navigation bar easy to…									
(easy 1-2-3-4-5 difficult)									
Use?	31	10	4	2	1	2			
Understand?	32	9	4	2	1	2			
	Randomly	**Alphabetical**	**Importance**	**Other**	**NR**				
How are the navigation buttons ordered?	9	15	14	4	8				
	1	**2**	**3**	**4**	**5**	**Yes**	**No**	**NR**	
Are all navigation buttons clearly labelled?	1	7	9	10	18			5	
(unclearly 1-2-3-4-5 clearly)									
Did you ever get lost in the site?						13	34	3	
Did you need to you the 'back' button on your browser?						39	7	4	
(Yes/No)									
Did you encounter any broken links?						9	36	5	
(Yes/No)									

Search Methods	**1**	**2**	**3**	**4**	**5**	**Yes**	**No**	**NR**
Was the Product Information search engine easily found?	18	11	13	4	2			2
(easy 1-2-3-4-5 difficult)								
Did you use the Product Information search engine?						34	14	2
(Yes/No)								

Organisation	**1**	**2**	**3**	**4**	**5**	**Yes**	**No**	**NR**
Did you like the layout of the site?	5	5	13	18	5			4
(greatly disliked 1-2-3-4-5 greatly liked)								
Were you able to locate contact information for The Building Centre?						43	4	3
(Yes/No)								

Content	**1**	**2**	**3**	**4**	**5**	**Yes**	**No**	**NR**
Was the text easy to read?	27	12	5	2	1			3
(easy 1-2-3-4-5 difficult)								
Was the font appropriate size?	3	9	32	4				2
(too small 1-2-3-4-5 too large)								
Did the colours used facilitate reading?	11	13	20	4				2
(facilitated 1-2-3-4-5 hindered)								
Were graphics easy to view?	14	18	13	1	1			3
(easy 1-2-3-4-5 difficult)								
Were graphics useful?	11	20	10	5	1			3
(useful 1-2-3-4-5 not useful)								
Did the content appear accurate and truthful?						47		3
(Yes/No)								
Were there any obvious spelling errors on the site?						2	45	3
(Yes/No)								
Is content current and up to date?						45		5
(Yes/No)								

Overall	**1**	**2**	**3**	**4**	**5**	**NR**
Please give the web site an overall score.	4	1	9	25	9	2
(dislike 1-2-3-4-5 like a lot)						

NR indicates No Reponse.

Appendix F: Web User Survey Comments

How did you encounter The Building Centre's web site?	A search via Google; a search for the Bookshop; Altavista search on Self Build site; from a friend; BuildIt Magazine; previous encounters with The Building Centre; magazine advertisement; browsing the web; through a colleague; searching web; a leaflet from Ideal Home Expo; from visiting Centre; through email; useful web site list in home office
Where did you become lost in the site?	Using Bookshop site; hit wrong navigational button; long lists within site
What changes, if any, would you like to see made to The Building Centre's web site layout?	No pop ups; to frequent use of '_NEW' for links; categorised information (i.e. commercial, residential and environmental.); less PDFs for special offers and a link to latest ones; no password reminders on sign-in pages; larger fonts on navigational buttons; design is bland and unimaginative; in need of more appealing colours
How often does it appear that the website is updated?	Once a month; weekly; daily; frequently
Which areas of the site, if any, were especially useful?	Professional literature and Bookshop; the whole site is informative; product information; specialist research; product selector; exhibitor information; events section
Which areas of the site, if any, were not useful?	Conference facility information; selecting specific product information; large scale construction issues; product search; large products are difficult to ship; certain areas give limited range of product information; Sanitary wares and fittings
Which areas of the site, if any, contained incomplete information?	Links to product information; facilities of Centre; some product information (i.e. complete catalogue of copper pipe fitting machine)

Are there any areas that you would have liked to see covered in the web site, which were NOT covered?	People with bad eye site may have trouble with text; timber frame housing; environmental and alternative building methods; building conversions; does not provide simple up-to-date Building Regulations; pricing tools to price jobs or products; quality building tools and equipment
Overall comments	Its free; could find everything I was looking for; easy to understand and navigate; informative; layout and text size is frustrating; information is easy to access; slightly confused presentation of information; useful but product brochures take time to load; very satisfactory; enjoyable experience; visually hard to comprehend; gave me specific information that I needed; text may be difficult for some to read; straightforward and not too cluttered good site; tailored to meet the needs of the customer; product catalogue is a plus; would like to see a tool giving comprehensive range of all products

Appendix G: Web Site Assessment Results

	Barbour	BetterBuild	BIW	Bricsnet
Pretest				
Identify the number of links on the page by visual inspection.	33.5	129	3.25	77
Number of links	34	137.3	3.5	75
Navigation				
Is the navigation placement consistent throughout the site? (Yes/No)	4Y	3Y, 1N	4Y	3Y, 1N
Is there a clearly marked link back to the home page? (Yes/No)	4Y	3Y, 1N	2Y, 2N	3Y, 1N
Does every page make it clear which web site you're in? (Yes/No)	4Y	4Y	4Y	4Y
How are the navigation buttons ordered? N/A Alphabetical Importance Random Other	 2 1 Logically	1 1 Category (2)	 2 2 	 1 3
Is a 'Back to Top' link used on longer pages? (Yes/No)	1Y, 3N	3N, 1N/A	1Y, 3N	4N
Did you ever need to use the back button on your browser? (Yes/No)	4N	2Y, 2N	4N	1Y, 3N
Did you encounter any broken links? (Yes/No)	4N	1Y, 3N	4N	4N
Can pages be bookmarked? (Yes/No)	4Y	4Y	3Y, 1N	4Y
If an external link is selected, does the page open in a new window? (Yes/No)	3Y, 1N/A	2Y, 2N/A	3Y, 1N/A	3Y, 1N/A
Are all navigation buttons clearly labelled? unclearly 1 - 2 - 3 - 4 - 5 clearly	4.25	4	4.25	3.5
Search Methods				
Is there a site map? (Yes/No)	4Y	1Y, 3N	1Y, 3N	4N
Is there a site index? (Yes/No)	4N	1Y, 3N	1Y, 3N	4N
Is there a site search engine? (Yes/No)	4N	4Y	3Y, 1N	3Y, 1N

	Barbour	BetterBuild	BIW	Bricsnet
Organisation				
Is there contact information for the organisation? (Yes/No)	4Y	2Y, 2N	1Y, 3N	4Y
Is the layout consistent between pages? (Yes/No)	4Y	3Y, 1N	4Y	3Y, 1N
Is the layout cluttered? (Yes/No)	1Y, 3N	1Y, 3N	1Y, 3N	4Y
Do you need to scroll horizontally? (Yes/No)	4N	4N	4N	4N
Do you need to scroll more than two pages vertically? (Yes/No)	2Y, 2N	4N	3Y, 1N	3Y, 1N
Content				
Which font(s) is/are used? N/A Times New Roman Arial Verdana Courier New Trebuchet	 1 3 	 1 3 	1 1 2 	1 1 2
What is the text size?	9.5	10	8.3	8.3
Are colours consistent? (Yes/No)	4Y	4Y	4Y	3Y, 1N
Did all graphics load properly? (Yes/No)	4Y	2Y, 2N	4Y	4Y
Do the pages include introductory text? (Yes/No)	4Y	4N	3Y, 1N	4N
Are there any obvious spelling/grammar errors in the site? (Yes/No)	4N	4N	4N	4N
Is there a site glossary? (Yes/No)	4N	4N	4N	1Y, 3N
Does the web site currently need to be updated? (Yes/No)	4N	1Y, 2N, 1N/A	4N	4N
Checklist				
Are page titles consistent with link names? (Yes/No)	4Y	3Y, 1N	4Y	3Y, 1N
Do all headers have consistent syntax, capitalisation, and punctuation? (Yes/No)	4Y	3Y, 1N	4Y	4Y
Are bullets the same style throughout the site? (Yes/No)	3Y, 1N/A	2Y, 2N/A	3Y, 1N/A	4Y
Are link colours consistent from page to page? (Yes/No)	4Y	4Y	4Y	3Y, 1N
Are link colours consistent with web conventions? (Yes/No)	4Y	4Y	4Y	2Y, 2N
Overall				
Give the web site an overall score dislike 1 - 2 - 3 - 4 - 5 like a lot	4.5	2.25	3	3

	British Gypsum	Building Design	BP Index	Building Centre
Pretest				
Identify the number of links on the page by visual inspection.	30.25	147.75	10.5	28
Number of links	24	189.3	17	35.75
Navigation				
Is the navigation placement consistent throughout the site? (Yes/No)	3Y, 1N	1Y, 3N	4Y	4Y
Is there a clearly marked link back to the home page? (Yes/No)	4Y	2Y, 2N	2Y, 2N	3Y, 1N
Does every page make it clear which web site you're in? (Yes/No)	4Y	3Y, 1N/A	4Y	4Y
How are the navigation buttons ordered? N/A Alphabetical Importance Random Other	 1 3	 1 2 1	 2 1 1	 2 2
Is a 'Back to Top' link used on longer pages? (Yes/No)	4N	3N, 1N/A	4N	3N, 1N/A
Did you ever need to use the back button on your browser? (Yes/No)	4N	2Y, 2N	4N	4N
Did you encounter any broken links? (Yes/No)	1Y, 3N	4N	4N	4N
Can pages be bookmarked? (Yes/No)	3Y, 1N	4Y	4Y	4Y
If an external link is selected, does the page open in a new window? (Yes/No)	1Y, 1N, 2N/A	2Y, 2N	4N	4Y
Are all navigation buttons clearly labelled? unclearly 1 - 2 - 3 - 4 - 5 clearly	3.75	2.75	3.75	4.5
Search Methods				
Is there a site map? (Yes/No)	4N	1Y, 3N	4N	4N
Is there a site index? (Yes/No)	4Y	1Y, 3N	4N	4N
Is there a site search engine? (Yes/No)	4Y	3Y, 1N	3Y, 1N	1Y, 3N

	British Gypsum	Building Design	BP Index	Building Centre
Organisation				
Is there contact information for the organisation? (Yes/No)	4Y	3Y, 1N	4Y	4Y
Is the layout consistent between pages? (Yes/No)	4Y	2Y, 2N	4Y	4Y
Is the layout cluttered? (Yes/No)	3Y, 1N	2Y, 2N	4N	3Y, 1N
Do you need to scroll horizontally? (Yes/No)	4N	4N	4N	4N
Do you need to scroll more than two pages vertically? (Yes/No)	4N	3Y, 1N	4N	2Y, 2N
Content				
Which font(s) is/are used? N/A	1		1	1
Times New Roman		1		
Arial	3	1	3	3
Verdana		2		
Courier New				
Trebuchet				
What is the text size?	8.8	10.1	10.7	8.7
Are colours consistent? (Yes/No)	4Y	3Y, 1N	4Y	4Y
Did all graphics load properly? (Yes/No)	3Y, 1N	3Y, 1N	4Y	4Y
Do the pages include introductory text? (Yes/No)	4Y	1Y, 3N	3Y, 1N	4Y
Are there any obvious spelling/grammar errors in the site? (Yes/No)	4N	4N	4N	4N
Is there a site glossary? (Yes/No)	4N	4N	4N	4N
Does the web site currently need to be updated? (Yes/No)	4N	3N, 1N/A	4N	1Y, 3N
Checklist				
Are page titles consistent with link names? (Yes/No)	4Y	2Y, 2N	3Y, 1N	3Y, 1N
Do all headers have consistent syntax, capitalisation, and punctuation? (Yes/No)	4Y	2Y, 2N	4Y	4Y
Are bullets the same style throughout the site? (Yes/No)	4Y	2Y, 1N, 1N/A	3Y, 1N	4Y
Are link colours consistent from page to page? (Yes/No)	4Y	3Y, 1N	3Y, 1N	4Y
Are link colours consistent with web conventions? (Yes/No)	1Y, 3N	4Y	3Y, 1N	1Y, 3N
Overall				
Give the web site an overall score dislike 1 - 2 - 3 - 4 - 5 like a lot	3.75	1.5	2.5	4

	Build Online	Construction Plus	Easy Material	ebuild
Pretest				
Identify the number of links on the page by visual inspection.	23.25	50	19	**
Number of links	29.5	50.7	15	**
Navigation				
Is the navigation placement consistent throughout the site? (Yes/No)	4Y	4Y	4Y	4N
Is there a clearly marked link back to the home page? (Yes/No)	4Y	4Y	4Y	4Y
Does every page make it clear which web site you're in? (Yes/No)	4Y	4Y	4Y	4Y
How are the navigation buttons ordered? N/A Alphabetical Importance Random Other	2 1 Logical	4	1 3	3 Service Index
Is a 'Back to Top' link used on longer pages? (Yes/No)	2N, 2N/A	2N, 2N/A	2Y, 2N	2N, 2N/A
Did you ever need to use the back button on your browser? (Yes/No)	4N	1Y, 3N	1Y, 3N	1Y, 3N
Did you encounter any broken links? (Yes/No)	4N	1Y, 3N	2Y, 2N	4N
Can pages be bookmarked? (Yes/No)	4Y	4Y	4Y	4Y
If an external link is selected, does the page open in a new window? (Yes/No)	3Y, 1N	3Y, 1N/A	3Y, 1N	3Y, 1N
Are all navigation buttons clearly labelled? unclearly 1 - 2 - 3 - 4 - 5 clearly	4.5	4.25	4	4
Search Methods				
Is there a site map? (Yes/No)	4N	4N	1Y, 3N	4N
Is there a site index? (Yes/No)	4N	3N, 1N/A	1Y, 3N	4Y
Is there a site search engine? (Yes/No)	4N	4N	4N	4N

	Build Online	Construction Plus	Easy Material	ebuild
Organisation				
Is there contact information for the organisation? (Yes/No)	4Y	4Y	4Y	3Y, 1N
Is the layout consistent between pages? (Yes/No)	4Y	4Y	3Y, 1N	2Y, 1N, 1N/A
Is the layout cluttered? (Yes/No)	4N	1Y, 2N, 1N/A	3N, 1N/A	3Y, 1N
Do you need to scroll horizontally? (Yes/No)	4N	4N	4N	4N
Do you need to scroll more than two pages vertically? (Yes/No)	2Y, 2N	4N	3Y, 1N	2Y, 2N
Content				
Which font(s) is/are used? N/A			1	1
Times New Roman	1	1		
Arial	1	1	1	1
Verdana		2	2	2
Courier New				
Trebuchet	2			
What is the text size?	10	8.6	10	8.8
Are colours consistent? (Yes/No)	4Y	4Y	4Y	4Y
Did all graphics load properly? (Yes/No)	4Y	4Y	3Y, 1N	4Y
Do the pages include introductory text? (Yes/No)	4Y	3Y, 1N	3Y, 1N	2Y, 2N
Are there any obvious spelling/grammar errors in the site? (Yes/No)	4N	4N	4N	4N
Is there a site glossary? (Yes/No)	4N	4N	4N	4N
Does the web site currently need to be updated? (Yes/No)	4N	4N	4N	4N
Checklist				
Are page titles consistent with link names? (Yes/No)	4Y	4Y	4Y	4Y
Do all headers have consistent syntax, capitalisation, and punctuation? (Yes/No)	4Y	3Y, 1N	3Y, 1N	4Y
Are bullets the same style throughout the site? (Yes/No)	4Y	4Y	3Y, 1N	4Y
Are link colours consistent from page to page? (Yes/No)	4Y	4Y	4Y	4Y
Are link colours consistent with web conventions? (Yes/No)	1Y, 3N	1Y, 3N	1Y, 3N	1Y, 3N
Overall				
Give the web site an overall score dislike 1 - 2 - 3 - 4 - 5 like a lot	4	4	2.75	3.5

	Eternit	Grundfos	Home-building	NBS
Pretest				
Identify the number of links on the page by visual inspection.	5	10.25	44.7	37.5
Number of links	5.75	13	43	35.5
Navigation				
Is the navigation placement consistent throughout the site? (Yes/No)	3Y, 1N	4Y	4Y	4Y
Is there a clearly marked link back to the home page? (Yes/No)	4Y	2Y, 2N	4Y	4Y
Does every page make it clear which web site you're in? (Yes/No)	3Y, 1N	4Y	4Y	4Y
How are the navigation buttons ordered? N/A Alphabetical Importance Random Other	1 3	2 2	2 2	4
Is a 'Back to Top' link used on longer pages? (Yes/No)	3N, 1N/A	4N	3Y, 1N	3N, 1N/A
Did you ever need to use the back button on your browser? (Yes/No)	4N	1Y, 3N	4N	4N
Did you encounter any broken links? (Yes/No)	1Y, 3N	1Y, 3N	4N	4N
Can pages be bookmarked? (Yes/No)	4Y	4Y	4Y	4Y
If an external link is selected, does the page open in a new window? (Yes/No)	3Y, 1N/A	1Y, 3N/A	2Y, 2N	2N, 2N/A
Are all navigation buttons clearly labelled? unclearly 1 - 2 - 3 - 4 - 5 clearly	3.75	3.5	4.3	4.25
Search Methods				
Is there a site map? (Yes/No)	4N	4N	4N	2Y, 2N
Is there a site index? (Yes/No)	4N	4N	2Y, 2N	1Y, 3N
Is there a site search engine? (Yes/No)	2Y, 2N	1Y, 3N	4Y	4Y

	Eternit	Grundfos	Home-building	NBS
Organisation				
Is there contact information for the organisation? (Yes/No)	4Y	4Y	4Y	4Y
Is the layout consistent between pages? (Yes/No)	3Y, 1N	4Y	4Y	4Y
Is the layout cluttered? (Yes/No)	4N	3N, 1N/A	3Y, 1N	4N
Do you need to scroll horizontally? (Yes/No)	4N	4N	4Y	4N
Do you need to scroll more than two pages vertically? (Yes/No)	4N	4N	3Y, 1N	2Y, 2N
Content				
Which font(s) is/are used? N/A	1	1	1	1
Times New Roman				
Arial	1		2	3
Verdana	1	2		
Courier New	1	1	1	
Trebuchet				
What is the text size?	10	8.7	9	9
Are colours consistent? (Yes/No)	3Y, 1N	4Y	4Y	4Y
Did all graphics load properly? (Yes/No)	4Y	4Y	4Y	4Y
Do the pages include introductory text? (Yes/No)	1Y, 3N	2Y, 2N	3Y, 1N	4Y
Are there any obvious spelling/grammar errors in the site? (Yes/No)	4N	4N	4N	4N
Is there a site glossary? (Yes/No)	4N	4N	4N	4N
Does the web site currently need to be updated? (Yes/No)	4N	4N	4N	4N
Checklist				
Are page titles consistent with link names? (Yes/No)	4Y	4Y	4Y	4Y
Do all headers have consistent syntax, capitalisation, and punctuation? (Yes/No)	3Y, 1N	4Y	4Y	4Y
Are bullets the same style throughout the site? (Yes/No)	3Y, 1N/A	3Y, 1N/A	3Y, 1N/A	4Y
Are link colours consistent from page to page? (Yes/No)	3Y, 1N	4Y	4Y	4Y
Are link colours consistent with web conventions? (Yes/No)	1Y, 3N	1Y, 3N	1Y, 3N	1Y, 3N
Overall				
Give the web site an overall score dislike 1 - 2 - 3 - 4 - 5 like a lot	3.5	3.5	4.25	3.5

	RIBA	Specify It	Specnet	UK Con-struction
Pretest				
Identify the number of links on the page by visual inspection.	25.75	6.5	9	**
Number of links	28.5	8	7.5	**
Navigation				
Is the navigation placement consistent throughout the site? (Yes/No)	2Y, 2N	4Y	2Y, 2N	3Y, 1N
Is there a clearly marked link back to the home page? (Yes/No)	4Y	4Y	2Y, 2N	3Y, 1N
Does every page make it clear which web site you're in? (Yes/No)	4Y	4Y	4Y	4Y
How are the navigation buttons ordered? N/A Alphabetical Importance Random Other	2 2	1 1 2	1 2 1	1 3
Is a 'Back to Top' link used on longer pages? (Yes/No)	3N, 1N/A	1Y, 2N, 1N/A	3N, 1N/A	1Y, 3N
Did you ever need to use the back button on your browser? (Yes/No)	1Y, 3N	1Y, 3N	1Y, 3N	2Y, 2N
Did you encounter any broken links? (Yes/No)	4N	1Y, 3N	4N	1Y, 3N
Can pages be bookmarked? (Yes/No)	2Y, 2N	4Y	4Y	4Y
If an external link is selected, does the page open in a new window? (Yes/No)	3Y, 1N/A	2Y, 1N, 1N/A	1Y, 1N, 2N/A	3Y, 1N/A
Are all navigation buttons clearly labelled? unclearly 1 - 2 - 3 - 4 - 5 clearly	4.25	3.5	3	3
Search Methods				
Is there a site map? (Yes/No)	1Y, 3N	4N	4N	4N
Is there a site index? (Yes/No)	1Y, 3N	1Y, 3N	1Y, 3N	1Y, 3N
Is there a site search engine? (Yes/No)	4Y	4Y	4N	4Y

	RIBA	Specify It	Specnet	UK Con-struction
Organisation				
Is there contact information for the organisation? (Yes/No)	2Y, 2N	1Y, 3N	3Y, 1N	3Y, 1N
Is the layout consistent between pages? (Yes/No)	3Y, 1N	3Y, 1N	3Y, 1N	2Y, 2N
Is the layout cluttered? (Yes/No)	3N, 1N/A	4N	4N	3Y, 1N/A
Do you need to scroll horizontally? (Yes/No)	4N	4N	4N	4N
Do you need to scroll more than two pages vertically? (Yes/No)	1Y, 3N	1Y, 3N	2Y, 2N	3Y, 1N
Content				
Which font(s) is/are used? N/A	1	1	1	1
Times New Roman				
Arial	1	3	3	1
Verdana	2			2
Courier New				
Trebuchet				
What is the text size?	9.3	10.6	10	8.3
Are colours consistent? (Yes/No)	4Y	3Y, 1N	2Y, 1N, 1N/A	2Y, 2N
Did all graphics load properly? (Yes/No)	4Y	4Y	4Y	3Y, 1N
Do the pages include introductory text? (Yes/No)	2Y, 2N	4N	1Y, 3N	1Y, 3N
Are there any obvious spelling/grammar errors in the site? (Yes/No)	4N	4N	4N	4N
Is there a site glossary? (Yes/No)	4N	4N	4N	4N
Does the web site currently need to be updated? (Yes/No)	4N	4N	4N	1Y, 2N, 1N/A
Checklist				
Are page titles consistent with link names? (Yes/No)	1Y, 3N	3Y, 1N	4Y	3Y, 1N
Do all headers have consistent syntax, capitalisation, and punctuation? (Yes/No)	3Y, 1N	4Y	4Y	4Y
Are bullets the same style throughout the site? (Yes/No)	3Y, 1N/A	4Y	4Y	2Y, 2N
Are link colours consistent from page to page? (Yes/No)	4Y	3Y, 1N	4Y	3Y, 1N
Are link colours consistent with web conventions? (Yes/No)	1Y, 3N	1Y, 3N	1Y, 3N	1Y, 3N
Overall				
Give the web site an overall score dislike 1 - 2 - 3 - 4 - 5 like a lot	3	3	3.75	1.75

Appendix H: Web Site Assessment Comments

Barbour
- Easy to navigate, lots of PDFs, good layout, text a little small, GREAT contact us section, lots of info, well-organised.
- Could use more graphical elements to the web site. Yet it is nicely designed.
- Good site overall. Home page cluttered. White background is distracting and hurts your eyes after a while, in combination with red toolbar.
- Overall organisation and navigation is good, no search engine.

BetterBuild
- Site was overly boring although the navigation wasn't bad.
- Decent site, using a simple directory approach. Page titles and headers need improvement. Some graphics would be nice.
- Links did not work, no mission statement & no recent news, etc.
- Could be a useful resource, but layout/org/nav is terrible! No nav bar, no graphics, just text.

BIW
- Navigates well and is informative.
- A very well designed and executed website with a lot of content. Text is too small though.
- Lacked pictures & info too. Confined to table of contents (index).
- Very hard to navigate, cluttered, teeny-weeny text, no explanation.

Bricsnet
- Info overload; way too cluttered, nav bar needs a lot of help, small text, boring.
- Too cluttered & not enough detailed information.
- A good site, that suffers a little from having too much info on some pages and using a font size that's too small.
- Boring, underlined text appear to be links, poor navigation.

British Gypsum
- Site is very sexy, however the navigation bar is in a different location on the front page. Overall a good web site.
- A good site overall. A bit too bland, however, and external links open in same window, which is a minor annoyance.
- Very professional, however cluttered at times like the BC's website.
- Layout was a little confusing; small text; two nav bars!

Building Design

- Very interesting; terrible to navigate; poor layout/org; links are unreliable; really useful info.
- It was too plain. Not visually stimulating.
- Very poor site. Navigation and organisation are disorganised and inconsistent. A lot of unnecessary empty white space. Looks very unprofessional.
- This site is not put together well; layout and navigation are terrible.

BP Index

- Site is OK; navigation isn't bad; isn't very sexy.
- A blank site that could use a brighter color scheme and some graphics. Also, the home page link is not clearly marked.
- Lacked good graphics or professional design.
- Not much info; unclear nav & org; inconsistent page design.

Building Centre

- Lots of info; logical org; good nav; pages a little cluttered; text too small.
- One of the best, however lacks simplicity need if someone were to find product info. Plus lacks separate nav keys for contact & about us.
- A very good site overall. Needs bigger text, a more colorful scheme, and generally larger pages.
- Navigates well, but some pages are cluttered. Not many search methods and text is very small.

Build Online

- Good site, well organised, lack of some navigational aids, but overall good navigation.
- A very well designed page. Only weakness is slow loading time.
- It was good, yet if a site map or glossary was included, it would be better.
- Info is very organised, font is different but still readable (could be bigger), useful info, very professional.

Construction Plus

- Overall organisation of site wasn't intuitive; "about us" section is very unclear; text is too small!; navigation could be better (drop down menus).
- It had a clear look, yet it still lacked information about the company like a mission statement or an "about" link.
- Overall, a very good site. However, the home page is a bit cluttered, and the internal linking system takes a little while to get used to. Text too small.
- Site is organised well, although there is no contacts page, site map, search engines, navigation is good.

Easy Material

- Informative, OK overall.
- Generally a good site. Needs more graphics and a better color scheme.
- Too plain and simple & lacked functionality. Noticed: Endorsing a potential competitor??
- Pop-ups; lots of broken links; well-organised, easy to navigate, good info.

ebuild

- Confusing & cluttered; text too small; poor navigation.
- Based on Index Search engines for quick information into a prodcut, yet lacked upfront company info or mission statement.
- Good site. Text size a bit too small and home page is a bit too cluttered.
- Navigation is OK, a lot of information ont heis site home page is cluttered.

Eternit

- Very different layout, but inconsistent; poor nav/org; fun, bright website
- The flash media makes it interesting, yet extremely confusing.
- A strangely organised webpage that loads slowly because it is flash-based.
- Site is simple, yet informative and there is more than what appears to the naked eye.

Grundfos

- Navigates well, informative, and sexy.
- A decent website. However, a thorough evaluation is not possible as many features require membership.
- Seemed to lack info detail, plus layout lacked photos. Too much text.
- Interesting design; very, very different; pretty good org/nav.

Homebuilding

- Seems to have good info; info overload - very cluttered & disorganised; small text; lots of ads.
- Looks professional, however, looks cluttered.
- A very well designed website that is vibrant and informative, if a little bit cluttered.
- Good site all around, but not perfect.

NBS

- Navigated well, very boring and most of site requires login name and password.
- Good website. Blue text and white background are not the best combination, though. Also, could use some graphics.
- While well designed, it lacked photographs & seemed sterile looking. Plus, everything must be paid before. Good idea: "Bookmark" link, "Tell a friend".
- Org/nav is good; not much you can do if you're not a member.

RIBA

- Not much to it; nav is OK but not great; no explanation; smallish text.
- Based entirely on search engines. However, lacked graphics & in-depth knowledge of the company & its goals.
- Average-looking site. Very few graphics. Needs more polish.
- Navigation is average; good search engine for products/companies; at one point links stopped working.

Specify It

- More of a product search site.
- Good website overall. Well done search engine with a lot of information. Could use better color scheme and more graphics.
- This website is entirely search engine based. That is bad!!! And it's slow to search for things.
- Useful; specific; somewhat confusing to navigate; no clear explanation.

Specnet

- Very useful, but very specific; very different layout/nav; simple, but exciting.
- Seemed boring and lacked any real design concept. Also, page layouts were not consistent.
- A good website with a clear organisational structure. Could use better navigation labeling and more graphics.
- Informative, not cluttered, and easy to navigate.

UK Construction

- Homepage is cramped, list of links not bulleted, hard to separate. Unprofessional.
- This site is cluttered, under construction, and needs to be updated.
- Messy color scheme & poor design. Doesn't offer much.
- So disorganised & cluttered, you can't find any info; looks like one big ad.

Appendix I: Web Site Assessment Scores & Rankings

Web Site	Score	Ranking
National Building Specification	16	1
Barbour Index	15	2
BuildOnline	14	3
Building Centre	12	4
British Gypsum	12	4
Homebuilding & Renovating Online	11	6
Construction Plus	9	7
Ebuild	9	7
BIW Technologies	8	9
Building Products Index	8	9
Grundfos Pump Exhibition	7	11
Specnet.net Product Selector	6	12
Easy Material	5	13
RIBA Product Selector	5	13
Specify It	5	13
Eternit Building Materials	4	16
BetterBuild	3	17
Bricsnet Product Center	2	18
Building Design	-5	19
UK Construction	-6	20

Appendix J: Page Readability Tool

Welcome Visitor. Last login was on 2004/04/13. You have used 2 tools this week.

Visitor Account is allowed 1 URL's, each with up to 10 keywords.

Account is valid until 2004/05/13 at 25 tool uses per week.

Please Subscribe to the SEOToolSet

Check Server Page

Company: The Building Centre

URL: http://www.buildingcentre.co.uk

Help Files

Original URL	Http://www.buildingcentre.co.uk
Domain	Buildingcentre.co.uk
File	/
DNS IP	62.169.138.226
PING	Successful
No robots.txt file	
Check IP BlockList	

Warning - Cloaked or Virtual IP site detected

Some search engines will penalise Cloaked or Virtual IP sites

Page results mis-match at line 2

Site Status Header (from your server)

200 OK

Server: Microsoft-IIS/5.0

Date: Tue, 13 Apr 2004 12:28:48 GMT

Connection: Keep-Alive

Content-Length: 1270

Content-Type: text/html

Set-Cookie: ASPSESSIONIDASSDTSSB=LGKKHNAAHHECLBAOELKGHHBI;

path=/

Cache-control: private

Contents from Spider Page Read

Spider Input 1:

Spider Input 2: <!--

Spider Input 3: WARNING!

Spider Input 4: Please do not alter this file. It may be replaced if you upgrade your web server

Spider Input 5: If you want to use it as a template, we recommend renaming it, and modifying the new file.

Spider Input 6: Thanks.

Spider Input 7: -->

Spider Input 8:

Spider Input 9:

Spider Input 10: <HTML>

Spider Input 11:

Spider Input 12: <HEAD>

Spider Input 13: <META HTTP-EQUIV="Content-Type" Content="text-html; charset=Windows-1252">

Spider Input 14:

Contents from Request Page Read of http://www.buildingcentre.co.uk

Request Input 1:

Request Input 2: <HTML>

Request Input 3: <HEAD>

Request Input 4: <TITLE>The Building Centre > Homepage</TITLE>

Request Input 5: <link href="css/css.css" rel="stylesheet" type="text/css">

Request Input 6:

Request Input 7:

Request Input 8: <body onUnload="window.open('surveypopup.asp', 'newWindow',

Request Input 9: 'scrollbars=0,resizable=0,height=250,width=400')">

Request Input 10: <body onLoad="window.open('confoffer.htm', 'newWindow',

Request Input 11: 'scrollbars=0,resizable=0,height=350,width=400')">

Request Input 12:

Request Input 13: <META NAME="DESCRIPTION" CONTENT="The Building Centre - the worlds largest permanent exhibition and single source of information covering all aspects of architecture and design, construction and planning, home improvement, DIY, and self build.">

Request Input 14: <META NAME="KEYWORDS" CONTENT="building products, building product information, building product brochures, building books, construction books, diy books, interior design books, architecture books, house building, home improvement, construction reports, building products, conference venue building">

Contents from Browser Page Get of http://www.buildingcentre.co.uk

Browser Input 1:

Browser Input 2: <HTML>

Browser Input 3: <HEAD>

Browser Input 4: <TITLE>The Building Centre > Homepage</TITLE>

Browser Input 5: <link href="css/css.css" rel="stylesheet" type="text/css">

Browser Input 6:

Browser Input 7:

Browser Input 8: <body onUnload="window.open('surveypopup.asp', 'newWindow',

Browser Input 9: 'scrollbars=0,resizable=0,height=250,width=400')">

Browser Input 10: <body onLoad="window.open('confoffer.htm', 'newWindow',

Browser Input 11: 'scrollbars=0,resizable=0,height=350,width=400')">

Browser Input 12:

Browser Input 13: <META NAME="DESCRIPTION" CONTENT="The Building Centre - the worlds largest permanent exhibition and single source of information covering all aspects of architecture and design, construction and planning, home improvement, DIY, and self build.">

Browser Input 14: <META NAME="KEYWORDS" CONTENT="building products, building product information, building product brochures, building books, construction books, diy books, interior design books, architecture books, house building, home improvement, construction reports, building products, conference venue building">

Page results mis-match at line 2

Remedy

We issue a socket get (low-level TCP/IP request like the search engines) and check the error code returned in the header. In your case the header states that there was NO error (200 OK). We then perform a browser get and compare the top few lines of source code. In your case they are different, indicating a potentially severe error.

Without researching this further, it is likely that you are running on a virtual server where the first web site in the list at that root DNS IP address points to a valid web directory/site (but not yours), or you have several nested servers and are performing redirects between them.

AltaVista states "If being found via search engines is important to your business, be very careful about where you have your pages hosted. If the hosting service also hosts spammers and pornographers, you could wind up being penalised or excluded simply

because the underlying IP address for that service is the same for all the virtual domains it includes."

One BlockList meta-search can be found at DNSstuff. Run this from their site and scan their list. If there are any BlockList entries, then complain to your ISP, and get yourself moved to a clean server. There are other lists available, and your ISP should have access to them all. There is no excuse for an ISP operating BlockListed IP ranges.

As a general rule, if a search engine spider does the same thing and receives the 200 message (indicating there was no error) then some search engines will index that source rather than yours.

We recommend that you obtain a dedicated IP address for your URL (contact your hosting company), or that your ISP makes your site the default page loaded at the DNS IP address 62.169.138.226.

"Basically, Google's position is that we prefer no hidden links, no hidden text, no automatic tools used for positioning, and no cloaking. We prefer that Googlebot get the exact same page that users see. In general, you can assume that we're as conservative as possible. We don't like hidden links/text in divs/layers/iframes/css, or links that are inconspicuous or punctuation, for example. Similarly, we don't like cloaking or sneaky redirects in any form, whether it be user agent/ip-based, or redirects through javascript, meta refreshes, 301/302's, or 100% frames. More details are available from our webmaster section at http://www.google.com/webmasters/".
[Also see the Google Do's and Don't page]. Sites that are not in "compliance" have already started to be filtered from the search engine indexes, and many more are sure to follow.
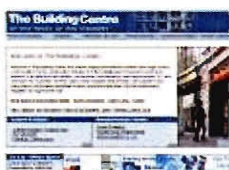
Appendix K: Keyword Density Analyser

URL: http://www.buildingcentre.co.uk

<u>Help Files: Multi-page Keyword Density Analyzer</u>
<u>Help Files: Single-page Keyword Density Analyzer</u>

This report analyzes top few used words from your URL

Subscribers get the top 100 words plus additional report content. <u>Click here</u> to Subscribe

Processing http://www.buildingcentre.co.uk

File Size: 18553 bytes

Report Date: Monday, April 26, 2004 at 04:54:31

Page is NOT PathMaps enabled

Page is NOT Dynamic Site Mapping enabled

Page http://www.buildingcentre.co.uk has 3 BODY commands - spam violation

CSS commands are ignored

TITLE Tag

Page title text is:

The Building Centre > Homepage

Page Title statistics: Total Words: 4 - Length: 30 characters.

Page Title statistics: Stop Words: 1 - Used Words: 3 .

Page Title statistics: Word Utilization: 25.0% [Optimal space 12 words].

Page title is **TOO SHORT** (3 words). Should be between 6 and 12 words.

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Meta Description Tag

Page description text is:

The Building Centre - the worlds largest permanent exhibition and single source of information covering all aspects of architecture and design, construction and planning, home improvement, DIY, and self build.

Page Description statistics: Total Words: 29 - Length: 209 characters.

Page Description statistics: Stop Words: 8 - Used Words: 21.

Page Description statistics: Space Utilization: 104.5% [Maximum space 200 characters].

Page Description statistics: Word Utilization: 87.5% [Optimal space 24 words].

Page description is an **ACCEPTABLE** length (21 words). Should be between 12 and 24 words.

Meta KEYWORDS Tag

Page keyword string is:

building products, building product information, building product brochures, building books, construction books, diy books, interior design books, architecture books, house building, home improvement, construction reports, building products, conference venue building

Page Keyword statistics: Total Words: 30 - Length: 267 characters.

Page Keyword statistics: Stop Words: 0 - Used Words: 30.

Page Keyword statistics: Space Utilization: 26.7% [Maximum space 1000 characters].

Page Keyword statistics: Word Utilization: 62.5% [Optimal space 48 words].

META Keywords is **MISSING** a word that is in either the TITLE or META Description.

Page keyword count is an **ACCEPTABLE** length (30 words). Should be between 0 and 48 words.
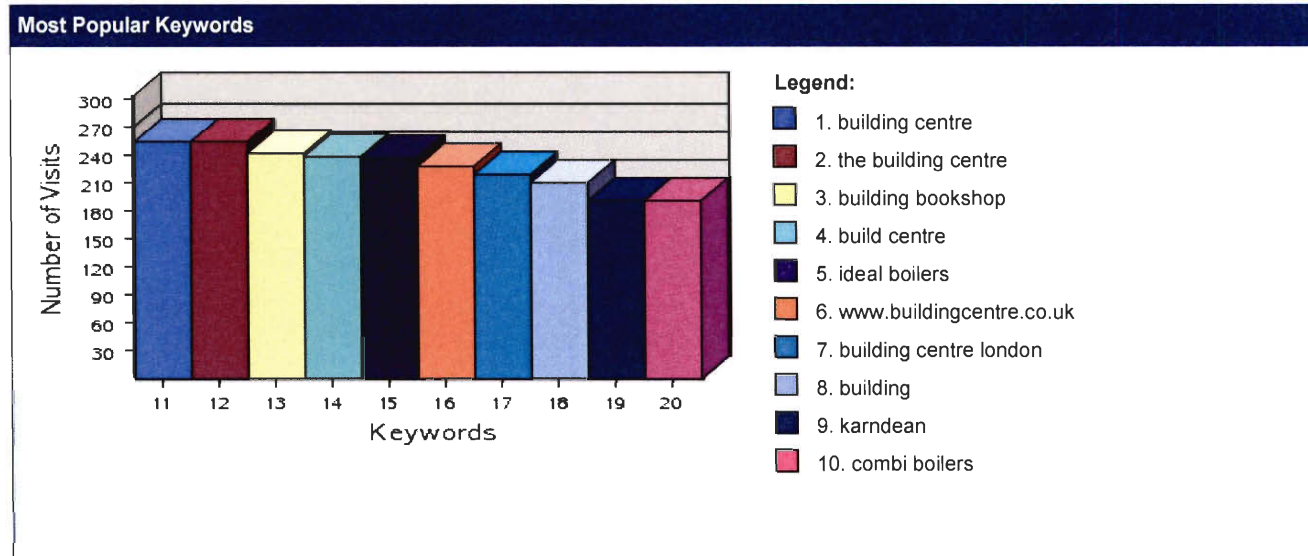

Keywords Page Keywords Site Keywords	META Title 3	META Descr 21	META Keywords 30	Heads 0	<!-- 11	ALT Codes 49	Hyper Links 76	First Words 108	All Body Words 108	ALL Words 298
building	33.3% (1)	4.8% (1)	23.3% (7)	-	-	20.4% (10)	-	5.6% (6)	5.6% (6)	8.4% (25)
centre	33.3% (1)	4.8% (1)	0.0% (0)	-	-	20.4% (10)	-	4.6% (5)	4.6% (5)	5.7% (17)
index	-	-	-	-	-	-	17.1% (13)	-	-	4.4% (13)
exhibit	-	-	-	-	-	-	11.8% (9)	-	-	3.0% (9)
product	-	-	6.7% (2)	-	-	6.1% (3)	2.6% (2)	0.0% (0)	0.0% (0)	2.3% (7)
more	-	-	-	-	-	-	1.3% (1)	4.6% (5)	4.6% (5)	2.0% (6)
news	-	-	-	-	-	2.0% (1)	6.6% (5)	-	-	2.0% (6)
construction	-	4.8% (1)	6.7% (2)	-	-	-	-	2.8% (3)	2.8% (3)	2.0% (6)
Min Max Avg	6 12 6.5	12 24 7	0 48 16	1 51 6.5	15 63 21.5	0 40 12	12 162 37	75 201 -	200 20000 215	75 298 221.5
Individual Max	2	2	5	5	5	5	5	-	-	-

Keywords Page Keywords Site Keywords	META Title 3	META Descr 21	META Keywords 30	Heads 0	<!-- 11	ALT Codes 49	Hyper Links 76	First Words 108	All Body Words 108	ALL Words 298
building centre	66.7% (1)	9.5% (1)	-	-	-	40.8% (10)	-	9.3% (5)	9.3% (5)	11.4% (17)
index building	-	-	-	-	-	-	-	-	-	0.0% (0)
news story	-	-	-	-	-	-	7.9% (3)	-	-	2.0% (3)

Keywords Page Keywords Site Keywords	META Title 3	META Descr 21	META Keywords 30	Heads 0	<!-- 11	ALT Codes 49	Hyper Links 76	First Words 108	All Body Words 108	ALL Words 298
index building centre	-	-	-	-	-	-	-	-	-	0.0% (0)
building centre product	-	-	-	-	-	12.2% (2)	-	-	-	2.0% (2)
exhibit detail exhibitid	-	-	-	-	-	-	11.8% (3)	-	-	3.0% (3)

TITLE: Total Words: 4 Stop Words: 1 Used Words: 3 Length: 30	The Building Centre > Homepage
DESCRIPTION: Total Words: 29 Stop Words: 8 Used Words: 21 Length: 209	The Building Centre - the worlds largest permanent exhibition and single source of information covering all aspects of architecture and design, construction and planning, home improvement, DIY, and self build.
KEYWORDS: Total Words: 30 Stop Words: 0 Used Words: 30 Length: 267	Building products, building product information, building product brochures, building books, construction books, diy books, interior design books, architecture books, house building, home improvement, construction reports, building products, conference venue building

Appendix L: Keyword Summary

buildingcentre: Keyword Summary   August 31, 2003 - April 26, 2004

Most Popular Keywords

Legend:
- 1. building centre
- 2. the building centre
- 3. building bookshop
- 4. build centre
- 5. ideal boilers
- 6. www.buildingcentre.co.uk
- 7. building centre london
- 8. building
- 9. karndean
- 10. combi boilers

	Keywords	Last Visit	Visits
1.	building centre	April 26, 2004 at 11:16 a.m.	2,884 (2.7%)
2.	the building centre	April 26, 2004 at 11:04 a.m.	1,482 (1.4%)
3.	building bookshop	April 25, 2004 at 8:10 a.m.	806 (0.8%)
4.	build centre	April 26, 2004 at 11:31 a.m.	503 (0.5%)
5.	ideal boilers	April 26, 2004 at 11:44 a.m.	451 (0.4%)
6.	www.buildingcentre.co.uk	April 26, 2004 at 9:37 a.m.	389 (0.4%)
7.	building centre london	April 26, 2004 at 11:35 a.m.	302 (0.3%)
8.	Building	April 25, 2004 at 9:58 p.m.	291 (0.3%)
9.	karndean	April 26, 2004 at 11:06 a.m.	286 (0.3%)
10.	combi boilers	April 24, 2004 at 5:15 p.m.	279 (0.3%)
11.	fermacell	April 25, 2004 at 12:04 p.m.	254 (0.2%)
12.	heritage bathrooms	April 25, 2004 at 4:52 p.m.	253 (0.2%)
13.	worcester bosch	April 25, 2004 at 6:24 p.m.	241 (0.2%)
14.	timber frame construction	April 26, 2004 at 12:56 a.m.	238 (0.2%)
15.	timber frame houses	April 23, 2004 at 8:42 p.m.	236 (0.2%)
16.	building products	April 24, 2004 at 5:22 p.m.	226 (0.2%)
17.	dimplex	April 26, 2004 at 10:30 a.m.	218 (0.2%)
18.	saniflo	April 24, 2004 at 7:05 p.m.	209 (0.2%)
19.	building center	April 25, 2004 at 3:47 p.m.	190 (0.2%)
20.	buildingcentre	April 23, 2004 at 12:20 p.m.	189 (0.2%)
21.	the building bookshop	April 21, 2004 at 4:14 p.m.	177 (0.2%)
22.	combination boilers	April 25, 2004 at 10:50 a.m.	161 (0.2%)

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23.	timber frame homes	April 22, 2004 at 10:34 p.m.	158 (0.1%)
24.	pilkington tiles	April 25, 2004 at 10:32 p.m.	152 (0.1%)
25.	building centre bookshop	April 23, 2004 at 5:06 p.m.	149 (0.1%)
26.	building centre store street	April 22, 2004 at 4:46 p.m.	143 (0.1%)
27.	custom homes	April 21, 2004 at 2:30 p.m.	142 (0.1%)
28.	combi boiler	April 26, 2004 at 9:35 a.m.	141 (0.1%)
29.	building centre uk	April 25, 2004 at 9:06 p.m.	141 (0.1%)
30.	plumb centres	April 24, 2004 at 11:00 p.m.	136 (0.1%)
31.	building foundations	April 20, 2004 at 1:34 p.m.	129 (0.1%)
32.	shower cubicles	April 25, 2004 at 8:08 p.m.	122 (0.1%)
33.	timber frame	April 25, 2004 at 7:17 p.m.	118 (0.1%)
34.	abbotshall homes	April 22, 2004 at 9:17 p.m.	118 (0.1%)
35.	the building centre london	April 25, 2004 at 7:09 p.m.	113 (0.1%)
36.	condensing boilers	April 23, 2004 at 9:10 p.m.	112 (0.1%)
37.	sound insulation	April 23, 2004 at 8:51 p.m.	103 (0.1%)
38.	boyack homes	April 25, 2004 at 8:25 p.m.	101 (0.1%)
39.	wolseley centres	April 26, 2004 at 11:36 a.m.	100 (0.1%)
40.	barber wilson	April 24, 2004 at 6:38 p.m.	97 (0.1%)
41.	solid wood flooring	April 7, 2004 at 2:32 p.m.	87 (0.1%)
42.	buildingcentre.co.uk	April 23, 2004 at 2:34 p.m.	84 (0.1%)
43.	traditional construction	April 19, 2004 at 12:59 a.m.	83 (0.1%)
44.	trianco	April 23, 2004 at 1:17 p.m.	81 (0.1%)
45.	arnold laver	April 25, 2004 at 5:46 p.m.	76 (0.1%)
46.	rehau	April 22, 2004 at 8:49 p.m.	76 (0.1%)
47.	perrin & rowe	April 21, 2004 at 2:54 p.m.	76 (0.1%)
48.	building book shop	April 22, 2004 at 2:30 p.m.	75 (0.1%)
49.	underfloor heating	April 20, 2004 at 8:06 p.m.	74 (0.1%)
50.	loft stairs	April 24, 2004 at 8:20 p.m.	73 (0.1%)

Keywords represented: 100 out of 14,529 (0.7%)   **Visits represented: 15,990 out of 106,402 (15.0%)**

Page Help

This report presents the keywords and phrases that visitors used in a search engine in order to find your Web site. Use this report to improve search engine placement for your site, select keywords for paid banner advertising, and learn more about what content interests your visitors.

Keywords - A keyword or phrase that a visitor used in a search engine in order to find your Web site.

Last Visit - The date and time of the most recent visit to your Web site that resulted from a search using this keyword or phrase.
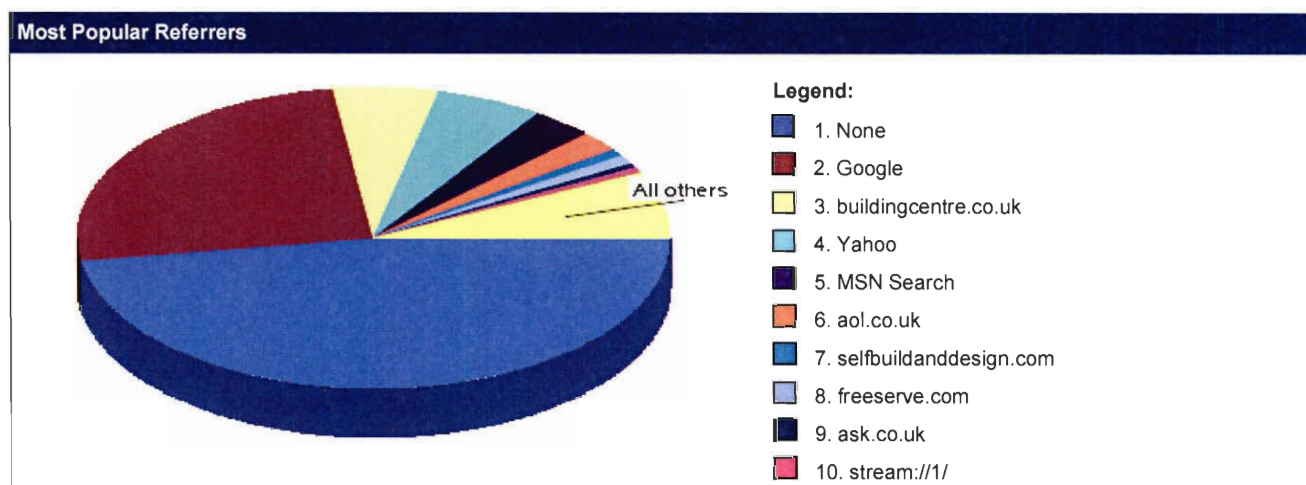
Visits - The number of visits that have resulted from a search using this keyword or phrase.

Appendix M: Referrer Summary

buildingcentre: Referrer Summary

Most Popular Referrers

Legend:
1. None
2. Google
3. buildingcentre.co.uk
4. Yahoo
5. MSN Search
6. aol.co.uk
7. selfbuildanddesign.com
8. freeserve.com
9. ask.co.uk
10. stream://1/

	Referrer	Last Referral	Average Visit Duration	Referrals	View/Visit Ratio
1.	None	April 26, 2004 at 11:43 a.m.	3 minutes, 11 seconds	50,412 (47.4%)	5:1
2.	Google	April 26, 2004 at 11:44 a.m.	1 minute, 33 seconds	26,685 (25.1%)	3:1
3.	buildingcentre.co.uk	April 26, 2004 at 9:38 a.m.	3 minutes, 11 seconds	5,957 (5.6%)	4:1
4.	Yahoo	April 26, 2004 at 9:25 a.m.	1 minute, 25 seconds	5,915 (5.6%)	3:1
5.	MSN Search	April 26, 2004 at 11:36 a.m.	2 minutes, 20 seconds	3,408 (3.2%)	5:1
6.	aol.co.uk	April 26, 2004 at 9:08 a.m.	54 seconds	2,204 (2.1%)	1:1
7.	selfbuildanddesign.com	April 26, 2004 at 11:24 a.m.	2 minutes, 4 seconds	729 (0.7%)	4:1
8.	freeserve.com	April 26, 2004 at 10:23 a.m.	2 minutes, 17 seconds	647 (0.6%)	4:1
9.	ask.co.uk	April 24, 2004 at 12:41 a.m.	2 minutes, 35 seconds	574 (0.5%)	6:1
10.	stream://1/	April 22, 2004 at 4:09 p.m.	3 seconds	389 (0.4%)	1:1
11.	62.173.95.220	April 25, 2004 at 7:45 p.m.	3 minutes, 11 seconds	351 (0.3%)	5:1
12.	ntlworld.com	April 23, 2004 at 7:21 p.m.	1 minute, 20 seconds	328 (0.3%)	4:1
13.	barbour-index.co.uk	April 24, 2004 at 4:25 p.m.	2 minutes, 46 seconds	285 (0.3%)	6:1
14.	AltaVista	April 25, 2004 at 11:15 p.m.	1 minute, 31 seconds	273 (0.3%)	4:1
15.	bbc.co.uk	April 26, 2004 at 11:46 a.m.	2 minutes, 26 seconds	218 (0.2%)	5:1
16.	msn.com	April 26, 2004 at 11:29 a.m.	1 minute, 10 seconds	213 (0.2%)	2:1
17.	odpm.gov.uk	April 20, 2004 at 12:09 p.m.	2 minutes, 36 seconds	186 (0.2%)	8:1
18.	thebuildingcentre.co.uk	April 26, 2004 at 8:38 a.m.	4 minutes, 27 seconds	177 (0.2%)	8:1

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19.	blueyonder.co.uk	April 24, 2004 at 8:49 p.m.	1 minute, 55 seconds	173 (0.2%)	7:1
20.	AOL Search	April 25, 2004 at 10:57 p.m.	25 seconds	157 (0.1%)	1:1
21.	interbuild.com	April 26, 2004 at 11:41 a.m.	3 minutes, 28 seconds	155 (0.1%)	6:1
22.	myway.com	April 22, 2004 at 6:09 p.m.	1 minute, 42 seconds	129 (0.1%)	3:1
23.	buildingcentretrust.org	April 26, 2004 at 10:16 a.m.	4 minutes, 18 seconds	122 (0.1%)	6:1
24.	tiscali.co.uk	April 21, 2004 at 7:36 p.m.	1 minute, 45 seconds	121 (0.1%)	4:1
25.	Netscape Search	April 21, 2004 at 10:56 p.m.	1 minute, 34 seconds	115 (0.1%)	4:1
26.	33max.co.uk	April 19, 2004 at 6:40 p.m.	49 seconds	111 (0.1%)	4:1
27.	selfbuildit.co.uk	April 24, 2004 at 7:32 p.m.	2 minutes, 52 seconds	106 (0.1%)	8:1
28.	mywebsearch.com	April 25, 2004 at 4:42 p.m.	1 minute, 43 seconds	105 (0.1%)	4:1
29.	riba.org	April 22, 2004 at 3:19 p.m.	1 minute, 48 seconds	103 (0.1%)	2:1
30.	self-builder.org.uk	April 21, 2004 at 3:56 p.m.	2 minutes, 9 seconds	103 (0.1%)	5:1
31.	Lycos	April 22, 2004 at 7:23 p.m.	2 minutes, 11 seconds	100 (0.1%)	4:1
32.	homepro.com	April 23, 2004 at 6:48 p.m.	1 minute, 18 seconds	91 (0.1%)	2:1
33.	roofinfo.co.uk	April 24, 2004 at 8:31 a.m.	2 minutes, 2 seconds	88 (0.1%)	5:1
34.	Ask Jeeves	April 23, 2004 at 5:11 p.m.	5 minutes, 4 seconds	87 (0.1%)	7:1
35.	off-design.com	April 22, 2004 at 11:16 a.m.	1 minute, 45 seconds	86 (0.1%)	4:1
36.	centaurshows.co.uk	April 26, 2004 at 11:36 a.m.	3 minutes, 27 seconds	84 (0.1%)	9:1
37.	XXXX:	April 22, 2004 at 3:23 p.m.	1 minute, 23 seconds	81 (0.1%)	4:1
38.	segalselfbuild.co.uk	April 21, 2004 at 12:24 p.m.	1 minute, 5 seconds	80 (0.1%)	4:1
39.	timesonline.co.uk	March 11, 2004 at 3:42 p.m.	4 minutes, 4 seconds	74 (0.1%)	8:1
40.	kellysearch.com	April 16, 2004 at 9:48 a.m.	1 minute, 12 seconds	72 (0.1%)	4:1
41.	specifinder.com	April 22, 2004 at 5:14 p.m.	4 minutes, 23 seconds	68 (0.1%)	6:1
42.	waterfrontexpo.com	Jan. 22, 2004 at 12:40 p.m.	3 minutes, 38 seconds	68 (0.1%)	5:1
43.	globaleffect.net	Sept. 14, 2003 at 4:07 p.m.	2 minutes, 8 seconds	68 (0.1%)	6:1
44.	knaufinsulation.co.uk	April 21, 2004 at 1:24 p.m.	4 minutes, 3 seconds	67 (0.1%)	9:1
45.	cic.org.uk	April 23, 2004 at 5:33 p.m.	3 minutes, 33 seconds	63 (0.1%)	5:1
46.	uel.ac.uk	April 26, 2004 at 11:15 a.m.	28 seconds	59 (0.1%)	1:1
47.	archinet.co.uk	April 14, 2004 at 7:29 p.m.	2 minutes, 47 seconds	58 (0.1%)	6:1
48.	builders-surplus.co.uk	March 30, 2004 at 10:55 p.m.	4 minutes, 47 seconds	58 (0.1%)	8:1
49.	architectureforall.com	Dec. 18, 2003 at 4:54 p.m.	2 minutes, 57 seconds	56 (0.1%)	5:1
50.	construction-on-line.co.uk	April 20, 2004 at 9:43 a.m.	3 minutes, 8 seconds	55 (0.1%)	5:1

Referrers represented: 100 out of 852 (11.7%)   Referrals represented: 103,597 out of 106,402 (97.4%)

Page Help

This report reveals which Web sites are sending the most visitors to your site. Use this report to evaluate the reach of online advertising and search engine placement efforts and plan new strategies to increase your visitor acquisition rate.

Referrer - A Web site that sent visitors to your site.

Last Referral - The date and time of the most recent visit that resulted from this referrer.

Average Visit Duration - The average length of visits resulting from this referrer.

Referrals - The number of visitors sent from this referrer.

View/Visit Ratio - The average number of page views per visit for visitors sent from this referrer.

Appendix N: Keyword Rankings

Current META Keywords	Alltheweb	AltaVista (UK)	Google	Google (UK)	HotBot	HotBot (UK)	Lycos (UK)
building products	495	241	415	92	>500	54	51
building product information	4	1	32	6	22	1	1
building product brochures	2	1	32	10	6	1	1
building books	7	13	>826	>835	45	1	1
construction books	30	142	>828	>776	148	7	7
diy books	48	349	>803	>650	137	26	26
interior design books	>1000	416	>795	>584	>500	224	217
architecture books	716	434	>766	>710	>500	105	99
house building	566	146	>891	301	>500	100	96
home improvement	>1000	>500	>814	>830	>500	>500	>500
construction reports	336	105	538	64	>500	21	19
conference venue building	420	203	364	155	>500	146	140
Possible Keywords							
building product exhibition	2	2	26	7	9	2	2
building information	142	86	211	55	>500	12	12
construction product information	195	49	94	33	>500	15	15
construction products	>1000	>500	>819	274	>500	432	416
construction information	338	>500	>871	75	>500	42	39

Current META Keywords	MSN	MSN (UK)	Yahoo	Yahoo (UK)
building products	>500	58	>1000	191
building product information	22	1	3	1
building product brochures	6	1	1	1
building books	42	1	>1000	8
construction books	149	7	980	127
diy books	141	37	527	304
interior design books	>500	272	>999	329
architecture books	>500	325	>999	338
house building	>500	115	683	142
home improvement	>500	>500	680	>1000
construction reports	>500	24	>1000	104
conference venue building	>500	181	419	157
Possible Keywords				
building product exhibition	8	2	1	2
building information	>500	13	118	90
construction product information	>500	21	435	46
construction products	>500	>500	>1000	681
construction information	>500	46	>1000	>1000

Appendix O: Home Page

Appendix O-1: Home Page - Original

Appendix O-2: Home Page – Sample

The Building Centre

AT THE HEART OF THE INDUSTRY

| Product Information | Bookshop | Information Services | Market Research | Conference Facilities | Product Exhibitions | For Manufacturers |

KEYWORD:

SEARCH

NEWS
New Galleries
Exhibits
EVENTS
Event 1
Event 2
MAILING LIST
OFFICE SPACE
SURVEY

ABOUT US
EVENTS
THE B.C. TRUST
USEFUL LINKS
CONTACT US

Welcome to the Building Centre

Welcome to The Building Centre, the worlds largest permanent exhibition and single source of information for the construction industry. It is the established focal point covering all aspects of architecture and design, construction and planning. home improvement, DIY and self build. For more than seventy years it has remained at the heart of the industry and today plays host to many important events, receiving more than 100,000 visitors and delegates throughout the year.

The Building Centre Trust

education | design | construction

Latest Exhibits	**Manufacturers News**
- Autron Products - Coming Soon - CCS Wood Industries - EGY-MAR INT	- Corus Building Systems - Hamilton Litestat - Knauf Insulation
..more	..more

Join Our Mailing Lists

inter build

Interbuild
25-29 April 2004
NEC
Birmingham

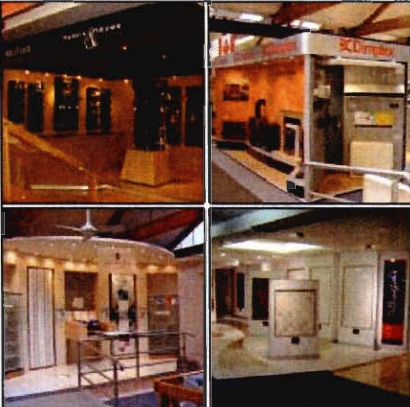The Building Centre, 26 Store Street, London WC1E 7BT

Appendix P: Product Exhibitions Page

Appendix P-1: Product Exhibitions Page - Original

The Building Centre
AT THE HEART OF THE INDUSTRY

| Product Information | Bookshop | Information Services | Market Research | Conference Facilities | Product Exhibitions | For Manufacturers |

Introduction

The Building Centre Exhibition comprises some 2,500 square metres of space situated in central London and is the UK's largest permanent showcase of construction products featuring over 140 companies from both home and overseas. Nearly all sectors of construction are displayed from external structural materials including bricks, rain screen systems and drainage through to internal finishes and fittings including bathrooms, kitchens, flooring, lighting and heating.

We also have the unique facility of providing for the professional specifier an extensive product information facility where literature can be sourced from over 3,500 different catalogues which is combined with our Exhibition all in one building.

Search   A-Z of Exhibitors   How to Exhibit   Latest Exhibits   Tenants

| Search | I | Tenants | I | Latest Exhibits | I | A-Z of Exhibitors |

The Building Centre, 26 Store Street, London WC1E 7BT

Appendix P-2: Product Exhibitions Page – Sample

The Building Centre
AT THE HEART OF THE INDUSTRY

| Product Information | Bookshop | Information Services | Market Research | Conference Facilities | Product Exhibitions | For Manufacturers |

KEYWORD:

SEARCH

**SEARCH
TENANTS
LATEST
EXHIBITS
A-Z SEARCH**

**ABOUT US
EVENTS
THE B.C. TRUST
USEFUL LINKS
CONTACT US**

Introduction

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The Building Centre, 26 Store Street, London WC1E 7BT

Appendix Q: Published Reports Page

Appendix Q-1: Published Reports Page – Original

The Building Centre
AT THE HEART OF THE INDUSTRY

| Product Information | Bookshop | Information Services | Market Research | Conference Facilities | Product Exhibitions | For Manufacturers |

Published Reports

The Building Centre produce a series of reports throughout the year, to help you gain business, which are updated on a regular basis.

Reports include **Senior Architects & Design Managers in Housebuilders** which lists key personnel involved in the specification of products for this important sector. The **Senior Buyers in Housebuilders** report lists the individuals responsible for purchasing building products. In a similar vein the **Senior Buyers in Builders Merchants & DIY Centres** report lists over 2400 contacts responsible for purchasing materials and products for the supply sector.

Winning contracts and specifications in the housing market is vital for most building product manufacturers and suppliers. Successful companies supplying the sector depend on accurate and up to the minute data relating to developers active in housebuilding and the location of planned projects. The Building Centre in collaboration with BDS Marketing & Research has produced a new report entitled **Housing Schemes 2004 – 2010** providing important data to assist all companies wising to target the lucrative UK housebuilding market.

Identifying projects is essential for suppliers of building products and services and the report **Office Construction in Central London** lists the details for over 300 office projects in London including the developer and architect contact details.

The housing market is an essential source of orders to many suppliers and the three **UK Housebuilders lists** provide a means of targeting products and services to builders completing a 50 or more, 20 – 49 or 10 –19 units a year. Those companies wishing to look at non-GB markets can access data on the Irish construction market in the report **Contruction Forecasts Ireland** which lists over 5000 companies involved in forthcoming 2004 projects. The report covers both the Republic and Northern Ireland.

Government expenditure on health and education in the next few years is expected to fuel a construction boom in these priority sectors. **Building for Health and Education** provides essential information on 417 projects, 195 health related and 222 education related which are in the planning 'pipeline'. The report gives details of project location, size, planning and contract stage and telephone numbers of the client and consultants involved in the project.

To view details of the reports or look at sample pages please click on the highlighted text.

For further information please contact Neil Martin on 020 7692 6205

| Published Reports | Research Commissions | Subscription Service | Non-UK Client Services | Mailing Services |

The Building Centre, 26 Store Street, London WC1E 7BT

Appendix Q-2: Published Reports Page – Sample

The Building Centre
AT THE HEART OF THE INDUSTRY

| Product Information | Bookshop | Information Services | Market Research | Conference Facilities | Product Exhibitions | For Manufacturers |

KEYWORD:

SEARCH

PUBLISHED REPORTS

RESEARCH COMMISSION

SUBSCRIPTION SERVICES

NON-UK CLIENTS

MAILING SERVICES

ABOUT US
EVENTS
THE B.C. TRUST
USEFUL LINKS
CONTACT US

Published Reports

The Building Centre produce a series of reports throughout the year, to help you gain business, which are updated on a regular basis.
Reports include Senior Architects & Design Managers in Housebuilders which lists key personnel involved in the specification of products for this important sector. The Senior Buyers in Housebuilders report lists the individuals responsible for purchasing building products.
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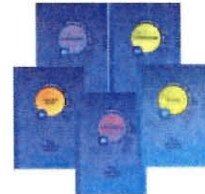
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To view details of the reports or look at sample pages please click on the highlighted text.

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The Building Centre, 26 Store Street, London WC1E 7BT

8. Glossary

The glossary includes definitions of technical terms used in this report. These definitions are taken from http://www.webopedia.com.

Banner
Also referred to as a banner ad, a banner is a typically rectangular advertisement placed on a Web site either above, below or on the sides of the Web site's main content and is linked to the advertiser's own Web site. In the early days of the Internet, banners were ads with text and graphic images. Today, with technologies such as Flash, banners have gotten much more complex and can be ads with text, animated graphics and sound. Most commerce-related Web sites use banner ads.

Hit
Also called a page hit. The retrieval of any item, like a page or a graphic, from a Web server. For example, when a visitor calls up a Web page with four graphics, that's five hits, one for the page and four for the graphics. For this reason, hits often aren't a good indication of Web traffic.

Home Page
The main page of a Web site. Typically, the home page serves as an index or table of contents to other documents stored at the site.

HTML
Short for HyperText Markup Language, the authoring language used to create documents on the World Wide Web. HTML is similar to SGML, although it is not a strict subset. HTML defines the structure and layout of a Web document by using a variety of tags and attributes. The correct structure for an HTML document starts with <HTML><HEAD>(enter here what document is about)</HEAD><BODY> and ends with </BODY></HTML>. All the information you'd like to include in your Web page fits in between the <BODY> and </BODY> tags.

There are hundreds of other tags used to format and layout the information in a Web page. Tags are also used to specify hypertext links. These allow Web developers to direct users to other Web pages with only a click of the mouse on either an image or word(s). For a more complete list of tags, check out some of the URLs below.

Keyword

A word used by a search engine in its search for relevant Web pages.

Link

In hypertext systems, such as the World Wide Web, a link is a reference to another document. Such links are sometimes called hot links because they take you to other document when you click on them.

Menu Bar

A horizontal menu that appears on top of a window. Usually, each option in a menu bar is associated with a pull-down menu.

META

In computer science, a common prefix that means 'about'. So, for example, metadata is data that describes other data (data about data). A metalanguage is a language used to describe other languages. A metafile is a file that contains other files. The HTML META tag is used to describe the contents of a Web page.

Page Hit (see Hit)

Page View

A Web page that has been viewed by one visitor. Page views are often used in online advertising, where advertisers use the number of page views a site receives to determine where and how to advertise.

Pop-up Ad

A type of window that appears on top of (over) the browser window of a Web site that a user has visited. In contrast to a pop-under ad, which appears behind (in back of) the browser window, a pop-up is more obtrusive as it covers other windows, particularly the window that the user is trying to read. Pop-ups ads are used extensively in advertising on the Web, though advertising is not the only application for pop-up windows. A pop-up ad is also referred to as a pop-up.

Search Engine

A programme that searches documents for specified keywords and returns a list of the documents where the keywords were found. Although search engine is really a general class of programmes, the term is often used to specifically describe systems like Alta Vista and Excite that enable users to search for documents on the World Wide Web and USENET newsgroups.

Typically, a search engine works by sending out a spider to fetch as many documents as possible. Another programme, called an indexer, then reads these documents and creates an index based on the words contained in each document. Each search engine uses a proprietary algorithm to create its indices such that, ideally, only meaningful results are returned for each query.

Spider

A program that automatically fetches web pages. Spiders are used to feed pages to search engines. It's called a spider because it *crawls* over the web. Another term for these programs is *web-crawler*.

Because most Web pages contain links to other pages, a spider can start almost anywhere. As soon as it sees a link to another page, it goes off and fetches it. Large search engines, like Alta Vista, have many spiders working in parallel.

Tag

A command inserted in a document that specifies how the document, or a portion of the document, should be formatted. Tags are used by all format specifications that store documents as text files. This includes SGML and HTML.

URL

Abbreviation of Uniform Resource Locator, the global address of documents and other resources on the World Wide Web.

Web-Crawler

See *Spider*.

9. References

Alexa Web Search (2004). *Alexa Internet, Inc.* Retrieved March 24, 2004 from
http://www.alexa.com

Allen, C. (2001). *One-to-One Web Marketing*, Second Edition. New York: John Wiley &
Sons, Inc.

Brinck, T. (2002). *Websites that work: usability for the web.* San Francisco: Morgan
Kaufmann Publishers, Inc.

Brinck, T., Gergle, D., and Wood, S. (2002) *Usability for the Web: Designing Web Sites
That Work.* San Francisco: Morgan Kaufmann Publishers, Inc.

Chaffey, D., Mayer, R., Johnston, K., and Ellis-Chadwick, K. (2000) *Internet Marketing:
Strategy, Implementation and Practice.* Harlow, UK: Pearson Education.

Danna, A., Souza, D., Hancock, C., Weiner, B. (2003). *Website reconstruction and public
relations enhancement.* Worcester: Worcester Polytechnic Institute.

Henderson, C. and James, M. (personal communication, January 30, 2004). Conference
call to gain information about The Building Centre.

Hoffman, D. and Novak, T. (2000) *How to acquire customers on the web. Harvard
Business Review*, May-June, pp. 179-188.

Holmes, M. (2002). *Web Site Usability and Navigation.* Berkeley: McGraw-Hill
Companies.

Howard Dean for America (2004). *Howard Dean* Retrieved February 15, 2004, from
http://www.deanforamerica.com

Jamsa, K. (2002). *HTML & Web Design Tips & Techniques.* Berkeley: McGraw-Hill
Companies.

Janal, D. (1998). *Online Marketing Handbook.* New York: John Wiley & Sons, Inc.

Lazar, J. (2001). *User-Centered Web Development.* Sudbury: Jones and Bartlett
Publishers.

Meetup Inc. (2004). *Meetup* Retrieved February 29, 2004, from http://www.meetup.com

Miller, R. (January 2003). *Email: The Other Content Management.* EContent, 26, 1, pp.
21-25. Retrieved February 9, 2004, from ABI/INFORM Global database.

Netracker 6.0 Enterprise (2002). *Sane Solutions, LLC* Retrieved March 24, 2004, from
http://stats.streamingwizard.com

Nielsen, J. (2000). *Designing Web Usability.* Indianapolis: New Riders Publishing.

Nobles, R. and Grady, K. (2001). *Web Site Analysis and Reporting.* Roseville, CA: Prima
    Publishing.

Powell, T. (2000). *Website design: the complete reference.* Berkeley: McGraw-Hill
    Companies.

Rados, D. (1996). *Marketing for Non-Profit Organizations.* London: Auburn House.

Schwartz, E. (1997). *Webonomics: Nine Essential Principles for Growing your Business
    on the World Wide Web.* New York: Broadway Books.

Scott, M. (2003). *Paying your way to the top. EContent*, 26, 5, pp 33-38. Retrieved
    February 9, 2004, from ABI/INFORM Global database.

Search Engine Optimization, Ranking, Web Site Promotion, Free Advice, and Placement
    (2003). *Bruce Clay, LLC* Retrieved March 24, 2004, from
    http://www.bruceclay.com/web_rank.htm

Search Engine Submission, Registration & Optimization Service for your Web Site
    (2004). *Submit It!* Retrieved March 24, 2004, from http://www.submit-it.com

Singleton, R. and Straits, B. (1999). *Approaches to Social Research.* New York &
    Oxford: Oxford University Press.

Spool, J. (1999). *Web Site Usability: A Designer's Guide.* San Francisco: Morgan
    Kaufmann Publishers, Inc.

Sterne, J. (2002). *Web Metrics: Proven Methods for Measuring Web Site Success.* New
    York, NY: Wiley Publishing, Inc.

Sullivan, D. (2001-2003) *Search Engine Submission Tips.* Retrieved March 24, 2004
    from http://searchenginewatch.com/webmasters/index.php.

The Building Centre (2004). *The Building Centre* Retrieved January 24, 2004, from
    http://www.buildingcentre.co.uk

The Building Centre Trust (2004). *The Building Centre Trust* Retrieved February 7,
    2004, from http://www.buildingcentretrust.org

Website Design International (2004). *OysterWeb* Retrieved February 20, 2004, from
    http://www.oyster-web.co.uk/

Vibert, C. (2000). *Web-Based Analysis for Competitive Intelligence.* Westport: Quorum
    Books.

Viral Marketing Techniques the Typical Business Website Can Deploy Now (2004).
Wilson Internet Services Retrieved February 20, 2004, from
http://www.wilsonweb.com/wmt5/viral-deploy.htm

Webopedia: Online Computer Dictionary for Computer and Internet Terms and
Definitions (2004). *Webopedia* Retrieved April 23, 2004, from
http://www.webopedia.com