hotel
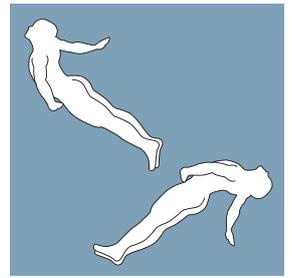## standards

highwire

Hotel-Standards

The advantages of database driven
specification management extranets

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The advantages of database driven specification management extranets

Database-driven dynamic extranet sites such as Hotel-Standards have significant advantages over traditional print-based design standards manuals and online collections of PDF documents:

■ **Speed**
Well programmed database driven sites deliver their content quickly.

■ **Searchability/Contextualisation**
As the content in a database driven site is very malleable, search results can be returned with great context sensitivity.

■ **Individualisation**
As the user management system controls what each individual user can see, the content seen on screen is tailored to meet the requirements of individual users.

■ **Interactivity**
Database driven sites can be turned in to useful working tools that help users perform their jobs more accurately and faster.

■ **Futureproof**
It is a relatively simple task to repurpose the content to be viewable on a PDA or cell phone.

■ **Updatability/Content control**
Through the content management system information can be kept current and updated immediately as required rather than having to wait for scheduled updates. Content changes become viewable as soon as they are made.

Introduction

Increasingly companies responsible for maintaining construction standards across a large portfolio of properties are using the internet to deliver standards information to their architects, contractors and staff. The internet offers significant advantages over traditional print based documents for delivering standards information. These advantages include distribution cost savings, greater control over standards delivery and the possibility of agglomerating individual project information across an entire estate

Online systems work in a variety of ways, the two leading ways being database driven sites and collections of linked PDF documents. Highwire has more experience than anyone at creating database driven specification management extranets for hotel groups and has evidence that shows these sites bring significant advantages over the PDF collection model. These advantages go way beyond using an extranet to simply replace a print based document, they turn the site in to a useful tool that helps increase productivity and improve communication between all the partners involved in building a hotel.

database driven specification management extranets bring significant advantages

Summary

■ The internet offers significant advantages over traditional print based documents.

■ Highwire has more experience than anyone at creating database driven specifications management extranets for hotel groups.

■ The site becomes a useful tool that helps increase productivity and improve communication between all the partners involved in building a hotel.

How a database driven site works

In a traditional website every page of information has to be built as an individual and separate HTML page. Because every page is unique and self contained if a change has to be made to an item that appears on several pages then that change must be made to every page. With a website using PDFs this means that every PDF needs to be remade when even a modest change is made.

Database driven websites use a single source of information, the database, which holds the information that appears on one, two or any number of pages.

When you want to view a particular web page, the page is put together by drawing information from different fields in the database. Since the page is generated every time the user clicks on the link to visit it such sites are called dynamic, as opposed to static, sites. If the information stored in the database changes, the web page connected to the database will also change automatically without the need for any further programming. Although each page is built on demand the process is very fast and transparent to the user. This means that huge amounts of information can be contained in a site with relatively little code required to deliver it.

The appearance of the page is kept separate from the information displayed. A few pages of computer code determine how information appears to the user.

One of the biggest advantages of a database driven site is that all it requires to view the information is a web browser like Internet Explorer or Firefox. The information is delivered to the user as a standards-compliant HTML web page. However, it is what happens to the page between being requested by the user and it being delivered that makes the system so versatile.

Summary

- Database driven websites use a single source of information, the database, which holds the information that can appear in multiple pages.

- Since the page is generated every time the user clicks on the link to visit it such sites are called dynamic, as opposed to static, sites.

- The information is delivered to the user as a standards-compliant HTML web page.

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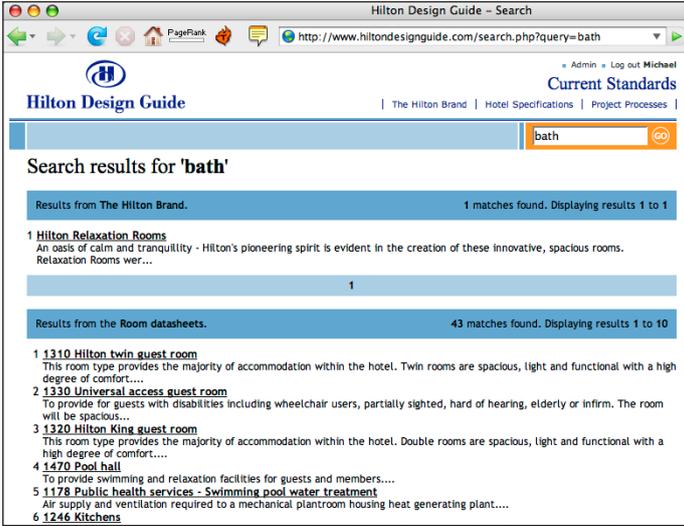
The advantages

Speed

Well programmed database driven sites deliver their content quickly. You can find information in a database driven site significantly faster than from a PDF. This is because only that information you're interested in needs to be displayed. Whereas in a collection of PDF documents you need to download an entire document before opening it and navigating to the information in which you are interested.

Searchability / Contextualisation

If you are unsure where to find the information you require, then looking up what you want from a database driven site becomes even faster. As databases are easy and quick to search users can find their chosen page from a single search. To carry out the same task using a collection of PDFs either requires very expensive server search software or requires a user to download every document and search each one individually on their own computer. (They can search entire collections of PDFs using commercially available software but are required to invest in that software first.)

Search results contextualised to help users to quickly find the information they want.

As the content in a database driven site is very malleable, search results can be returned with great context sensitivity allowing pages of related information to be collected in groups. Once found those pages that most closely meet a user's needs are close at hand. For example, the search can collect all CAD drawings together so a search for 'bath' not only shows every document about baths and bathrooms but shows all the drawings for bathrooms collected together so a user doesn't need to look through a list of 40 or 50 documents to find the, say, three drawings they require.

Individualisation

Contextualisation is only the first step in tailoring information to a user's needs. When a user registers for access to a site they can

be placed in a category that determines how they can access the information on the site. If for example a person is registered as a 'supplier' then perhaps they would be allowed to see FFE information but they would not be shown costs whereas another user registered as 'staff' would see the same information with the costs made visible. That same supplier might be able to see a lo-res GIF of a CAD drawing whereas a 'consultant' would be able to download the CAD drawing itself for inclusion in their work. This means that documentation only needs to be created once and it is the user management system that controls what information each individual sees rather than multiple instances of the content itself.

The top image shows a user registered as 'staff' with administrator rights. The bottom image shows the same page of information as seem by a user registered as a 'supplier'.

It is possible to go even further to individualise content; retaining information about which pages a user visits and using this to build a list of most commonly viewed pages; notifying users when pages they have viewed are updated. The potential is limitless.

Interactivity

It is through individualisation, contextualisation and other forms of interactivity that database driven sites can be turned into useful working tools that help users perform their jobs more accurately and faster.

No special software or location requirements

Because all the information is held in databases and the information is delivered as a standards-compliant HTML web page all that is required to view or update the site is a modern web browser such as Internet Explorer or Firefox. No other software is required. Although the Adobe Viewer software for viewing PDF documents is readily available and free (and in fact comes preinstalled on many computers) its use is still restricted within some organisations and is limited in its abilities unless you upgrade to the full, paid for, version.

This means that users can access the information on a database driven site wherever they are with the minimum of hardware and software.

Futureproof

The lack of software or hardware requirements has other advantages. Because the site is designed using modern design standards it can quickly adapt, change and grow as requirements change. PDF documents have the upper hand when it comes to formatting information; their precise controls allow for very accurate and visually stunning pages. However modern web browsers and modern standards allow database driven sites to present well laid out with attractive pages. As the content is separate from the markup of information hierarchy, and this is separate from the styles that govern presentation, the appearance of the entire site can be changed quickly. New sections and functions can also be added speedily and easily. These changes are reflected in the site design immediately and mean that any branding or image changes within an organisation are reflected as soon as practicable. Because users access live content when required there will never be legacy documents that fail to meet the latest requirements.

Another advantage of separating content from how it is displayed is that as technological changes happen a database driven site can respond quickly to users' needs. It is far simpler to repurpose the site to be viewable on a PDA or cellphone than it is to modify a collection of PDFs to enable them to be useful, or even viewable, on a very small screen. Thus as the use of new technologies grows the design and construction site can grow to allow for them.

Updatability / Content control

Perhaps the greatest advantage of a database driven site is the control the site owner has over its own content. Content is accessed through a content management system that is simple and helpful

as the use of new technologies grows the site can grow to allow for them

Updating information on the site is easy and uses the skills most web users already have. Each page gives context sensitive help to ensure data is entered correctly.

and allows those people with the appropriate access rights to add, update or delete information without the need to learn new skills. Training is generally unnecessary. Any user who has filled in an online form such as those required when making an online purchase has the required skills. This means that updating information need not be restricted to a small number of users with specific skills. Those users with the most appropriate skills can be given control over specific aspects of information and can become responsible for maintaining that information. This means that information can be kept current and updated immediately as required rather than having to wait for scheduled updates.

Updating also becomes a far faster process. Because information is kept in its constituent chunks, with multiple chunks being combined to create a page, like items of information can be shared. For example information about a 30 minute fire door need only be entered in to the database once and then linked to all the rooms that use it.

If policy changes and all those doors are updated to 45 minutes, then this information need only be updated once, a matter of a few minutes, unlike print or PDF based information where it needs to be updated in every document in which it appears.

As all the information is contained in a single place users always access the latest information. The company is not relying on project partners replacing outdated information with later versions. You can be secure in the knowledge that hotels are going to be built to the correct and current standards and requirements.

centrally stored information reduces the chance of using outdated standards

Summary

- Well programmed database driven sites deliver their content quickly.

- As the content in a database driven site is very malleable, search results can be returned with great context sensitivity.

- The user management system controls what information a user can view so that they see only what is necessary for their job.

- Database driven sites can be turned in to useful working tools that help users perform their jobs faster and more accurately.

- It is a relatively simple task to repurpose the site to be viewable on a PDA or cell phone.

- Through the content management system information can be kept current and updated immediately as required rather than having to wait for scheduled updates.

Conclusion

One of the most significant barriers to the adoption of online specifications management systems is their usability. If the system goes some way to making an architect's or contractor's work easier they are more likely to use the system. And if the content is simple to manage staff are much more likely to maintain the standards, specifications and brand values much more effectively.

The advantages inherent to database driven standards management extranets means they rapidly become a valuable working tool helping staff, architects and contractors to carry out their work more efficiently with less chance of error. The additional tools available on such sites means that information can be easily tailored to suit each user and every user will benefit from better communication.

> **staff are more likely to maintain standards, specifications and brand values**

	Database driven extranet	Online collection of PDFs	Print based standards
Simple distribution	✔	✔	✘
Content-wide updates	✔	✘	✘
Easy to update	✔	✘	✘
Updatable without special software	✔	✘	✔
Changes are effective instantly	✔	✘	✘
Easily made project specific	✔	✘	✘
Can form part of a contract	✔	✔	✔
Can be accessed from PDAs and phones	✔	✘	✘
Printed in set format	✔	✔	✔
Easily searchable	✔	✘	✘
Easily individualised	✔	✘	✘
Easy to maintain current standards	✔	✘	✘