



# Static generation

Tim Anderson investigates **publishing data without an online database** and **HTML insecurities**.

Judging by the email I receive there is still a fair amount of uncertainty about how to produce a website that displays content from a database. For example, David Wilson asks: 'Say I want to do a database on cars. I know how to use Microsoft Access, but not how to convert this into a workable site. The thing I would find really useful is searching: how would I do a multiple search where a registration date, number of doors, and price area was given?'

A lot of confusion stems from the fact that website authors generally use at least two computers. There is the computer on the desk in front of you,

might also mean a change of ISP. If you want to use Microsoft's tools, such as the database wizards in FrontPage 2000, then you need an ISP that runs Windows NT and supports Active Server Pages.

There is another option, which is to simulate an online database with static pages. To take the car example, you might design a website where the main search page has a row of buttons showing letters of the alphabet, or a drop-down list of car manufacturers, or both. Click a button and a page appears displaying all the matching vehicles. In this scenario, all the data is already on the site as HTML pages. Your search page has hyperlinks to the existing pages.

```
=Left$([Carmake],1)
```

where the 'carmake' field is the one on which you are searching. Specify a header for the group and close the dialog. Next, right-click the header in the report designer and choose Force new page. Finally, save the report, choose File, Export, and Save as Type HTML documents. You will be invited to select a template, but for now just click OK.

The trick here is that Access creates a separate HTML page for each page in the report, which in this case is at least one for each letter. By default, the pages have names like carspage2.html, carspage3.html and so on. Access creates a default first page for the report. By exploring the template option, you can also create your own design for the exported pages, including a link back to the search page.

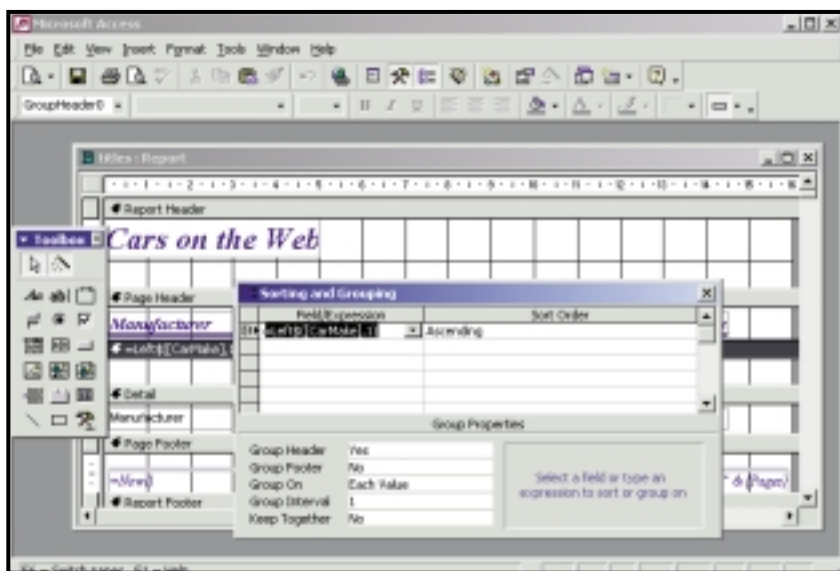
The only awkwardness is that you cannot know in advance what page number begins each new letter, assuming that some occupy more than one page. A way around this is to write some VB code for the Group\_Header\_Print event. In your code you can get the page number with Report\_name.Page, where 'Report\_name' is the name of your report. Using VB's file functions, you could generate an index page as the report prints. The advantage is that users will not have to page right through the report to find what they want.

Once this is set up, you can very quickly build an updated set of pages. With a simple macro, you could get the operation down to clicking a single shortcut on the desktop, or even automate the uploading process and run it as a scheduled job. If read-only data access will do, and if the database is not too huge, static pages are well worth investigating.

## Getting better listings

Michael Denton writes: 'I run an arts organisation. Any tips on how to be found by search engines or improve our listings would be much appreciated.'

Most websites are found eventually by search bots, web crawler programs that continually navigate the web indexing its



**Use Access 2000 reports to generate static HTML data a page at a time**

where you design the site, and there is the computer owned by your ISP, which is connected to the web. If you are querying a database, what works on your computer will not necessarily work when it is uploaded to your ISP, particularly if it is running a variety of Unix, whereas you have Windows.

What this means is that step one in web database publishing is to ask your ISP what is supported. In most cases, only the premium accounts allow dynamic database access, so it may well mean upgrading your subscription. It

The key to success here is automating the creation of the pages. Most recent database management software anticipates this need and has good support for generating static HTML from a database. For example, imagine you wanted to build the car site described above using letters of the alphabet on the search page and with data from Access 2000. One approach would be to create a report that includes the fields you want to display. In the report designer, choose View, Sorting and Grouping, and create a group like this:

pages, but you cannot rely on search bots. Bots will also fail to find some kinds of content, particularly on dynamic sites where it is generated on-the-fly. If you are willing to put the work in, here are three good ways to improve hit rates:

- Visit the key search engines yourself and submit your site manually. Then the details are submitted in the search engine's preferred form.
- Contact other sites in your field that are not direct competitors, and ask for a link.
- Make yourself helpful in relevant newsgroups and mailing lists, and include your website in your signature. 'Helpful' does not mean posting advertisements, but real engagement in discussion. People soon pick up that you know what you are talking about and will want to visit your site.

There is software around that will automatically submit sites to search engines, but the manual approach gets better results.

## How to hide HTML

Rob Pattison asks: 'How would I go about stopping anyone from sourcing or copying the HTML on our site?'

One of the great things about the web is that if you see a smart design while surfing, you can view the source and discover how it is done. Choosing View Source does not always work, because of framesets, but with a little effort you can get to it. Internet Explorer 5.0 is particularly handy, since saving a web page to disk picks up all the graphics and sub-pages. Hackers can also investigate the contents of their web page cache to analyse the HTML.

This is not so great if you want to protect the content. In essence, any HTML that the browser can render can also be viewed as source. Code is easier to protect. By running scripts on the server, you ensure that browsers only see the output, not the script itself. Client-side Java can be obfuscated, which means you scramble the compiled code so that it is hard to reverse engineer.

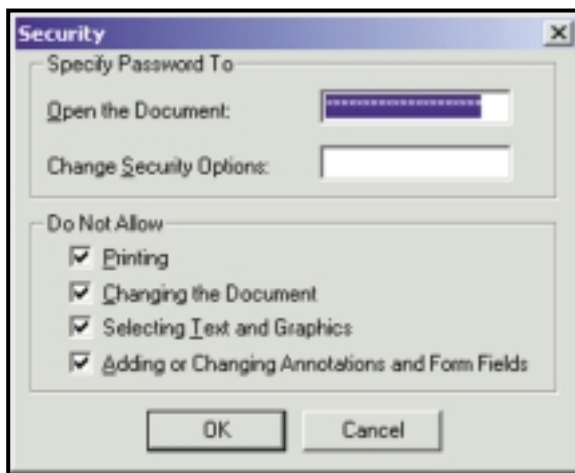
If you are serious about protecting

the content itself, the only real solution is not to use HTML. The obvious alternative is Adobe PDF. The latest Acrobat authoring tool has security options including password protection, embedded JavaScript, digital signatures to verify authorship, and the ability to prevent changes or disable printing and copying to the clipboard. For standard pages HTML is generally preferable to PDF, but if you want security, PDF is the answer.

## Instant ASP

Adobe has joined Macromedia Drumbeat in adopting ASP technology, with a free add-on to its GoLive web-authoring tool. Called the Dynamic Link, it allows you to bind HTML content to an online database.

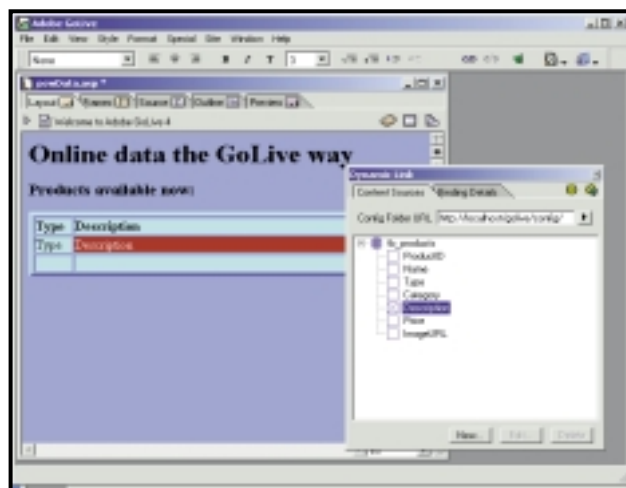
There are several things to like about this package. For one, it uses the Microsoft UDL (Universal Data Link) shortcuts to create database connections, which means proper support for ADO (ActiveX Data Objects) rather than just ODBC data sources. For another, it is visual and intuitive to use, at least at the basic level.



**Setting security options in Adobe Acrobat – one route to secure web content**

Once you have set up a database connection, by placing a UDL in the Dynamic Link configuration folder, you have a list of fields in a Content Source tab. To link it to a web page, you type some placeholder text, select it, and then check the required field. For a grid, you set up individual cells in the first row, then select the whole table and check the Replace Rows options. There are also built-in scripts for functions such as Next, Previous, New and Delete, and another set aimed specifically at supporting Microsoft Commerce Server, for creating ecommerce sites. Because the functionality is embedded into GoLive, there is a rich array of design tools available to create a good-looking front end.

Finally, there is nothing to stop you adding your own ASP scripts for more advanced functionality. For scalable websites with support for transactions and load balancing, the GoLive built-in



**Using GoLive Dynamic links, you can connect an HTML element to data by selecting it and clicking a field name**

features will soon run out of steam, but for quick intranet front ends, or simple web database publishing, it has a lot going for it.

To download the GoLive Dynamic Link add-on, you need to have at least GoLive 4.01. Then go to [www.adobe.com/products/golive](http://www.adobe.com/products/golive) to obtain the add-on.

## CONTACTS

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