workshop

Build your own website

It's now easier than ever to set up your own website. Jason Whittaker shows you how to use Macromedia Dreamweaver MX to create a great-looking, easily navigable and interactive site without needing to learn the underlying code

Unlike desktop publishing, where QuarkXPress is king, there is no single proprietary application for web production. The open nature of HTML (hypertext markup language, used to write websites) means choosing a web design package can complicated.

Microsoft has pushed FrontPage as part of the Office suite, but the company has been less successful than Adobe GoLive and Macromedia Dreamweaver in producing the software of choice for professionals.

Since its launch in 1997, Macromedia Dreamweaver has gained a large following due to its sophistication and ease of use.

But with the recent arrival of GoLive Macromedia's policy of dividing HTML design and online data publishing between two packages – Dreamweaver and UltraDev – appeared to be losing ground to Adobe's one-stop package.

With Dreamweaver MX, however, Macromedia is once again supreme. The application is capable of creating anything from the simplest home pages through to database-driven active server sites.

In this workshop, we'll cover both the essentials of web design with Dreamweaver and how to get up to speed with its more advanced features.
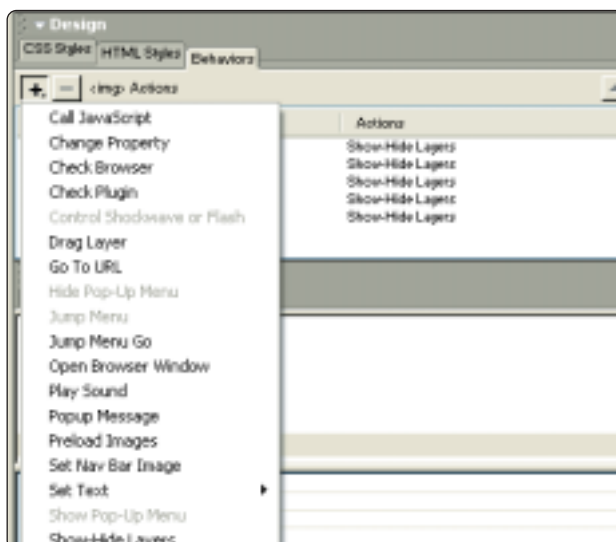
Adding content

1 Dreamweaver lets you work with your site in a variety of ways. Most people will use the visual Wysiwyg editor to lay out pages, but you can also work with HTML or a combination of the two. This is necessary if you're working with a scripting language such as JavaScript. To set up navigation between pages, click one of the three buttons beneath the Insert panel – Hyperlink, Email Link or Named Anchor. Alternatively, go to View and select Code, Design or Code and Design
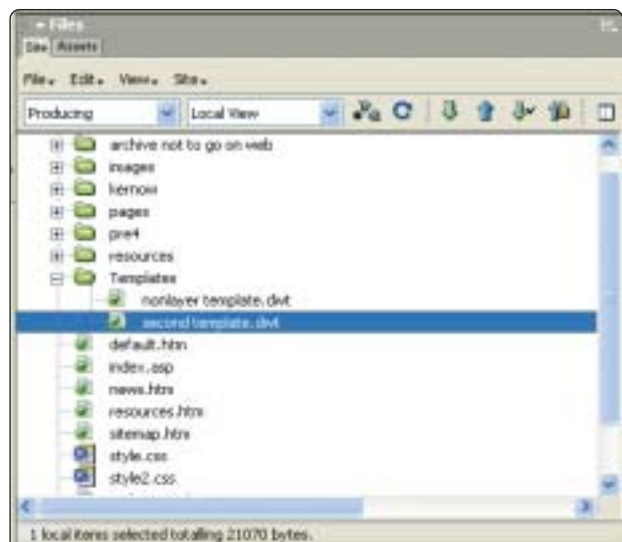

2 Many of the tools you will use to add elements to your pages are found in the Insert panel. This panel is arranged in a series of tabs for groups of items, such as the most common components, text tools, frame layouts or form elements. If you wish to add an image or table to your web page, for example, click on the Common tab and then on the appropriate button in the panel to include it in your design
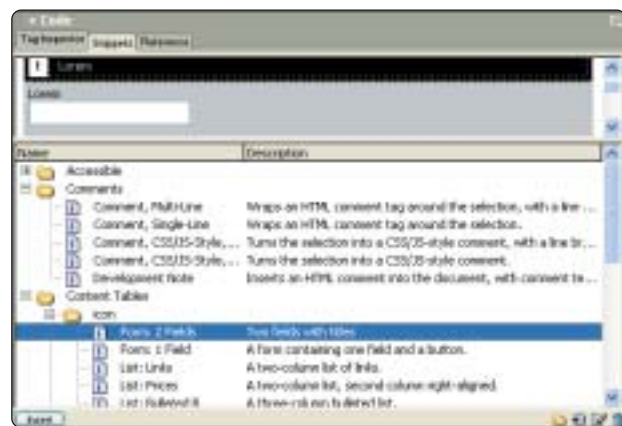
Using panels

1 In Dreamweaver 4.0 you could access important features within the main interface by using the various panels – something that has been extended in the MX incarnation. In the Default view, panels for design, coding, creating applications and file management will be found on the righthand side. To add Behaviors (dynamic HTML or JavaScript functions) to pages, for example, click on the Design panel and then the tab for Behaviors. Click the Plus button to choose your Behavior. Go to Show Events For to select Behaviors to certain browsers
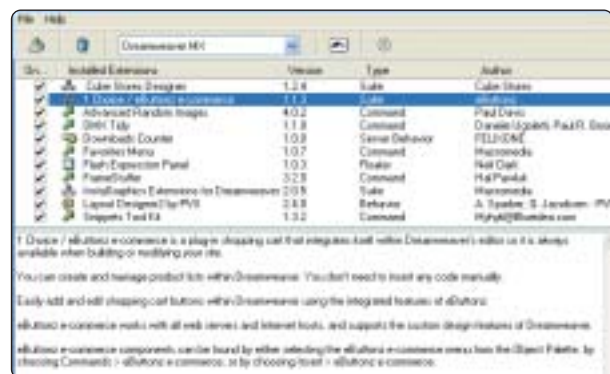

2 One of the most important panels in Dreamweaver is File management, which includes tools for organising your site. Click on the Site tab and go to Site, New Site to define a root folder; this will hold all the pages you create and is important if you wish to use templates or site-wide features such as search and replace. After clicking New Site, there is a series of dialog boxes that defines where the local folder will be stored, whether you require a remote host and the dynamic server technologies (if any) that will be used

Snippets, tags and extensions

1 Dreamweaver simplifies the process of HTML coding by providing a range of tools under the Code panel. The Tag Inspector lists relevant attributes for each tag on your page, allowing you to fine-tune it by hand. Snippets are pieces of code that can be added to your page; you can create new snippets by right-clicking code in Code view and then choosing Create New Snippet. Dreamweaver 4.0 introduced reference texts and MX has extended these to include detailed books on web technologies such as HTML, JavaScript and cascading stylesheets

2 You can use plug-ins or extensions to expand Dreamweaver's capabilities. Launch the Macromedia Extensions Manager and connect to Macromedia Exchange (www.macromedia.com/go/dreamweaver_exchange). From here you can download mini applets designed to perform a range of tasks such as creating menus or adding random images. Once you have downloaded the extension you require, import it into the Extensions Manager by selecting File, Import Extensions. Click on the name of your new extension to see how it is accessed from within Dreamweaver – for example, by adding a line to the Commands menu or by creating a new tab in the Insert panel

Word and image

At its simplest, web design consists of text documents that can be displayed in a browser. Indeed, the earliest web browsers largely consisted of text viewers. Added capability came with the use of the <img> element, as it allowed web pages to combine words and pictures. Early web designers were restricted in terms of how elements could be added to a page: the basic design flow was top to bottom, with text and image on the left, right or centre.

As with previous versions of Macromedia's program, Dreamweaver MX makes it easier to create complex layouts by using layers. While such layers cannot be displayed in older browsers, once a design has been set you can opt for backwards-compatibility by going to Modify, Convert, Layers to Table.

Before adding content to your pages, click on View in the menu. At the top of this you will see three options – Code, Design, and Code and Design. Click on the second option for Wysiwyg editing. Note, though, that HTML may be displayed in different browsers, so you might not get exactly what you expect.

Entering text can be as simple as clicking on the page and typing. However, it is unlikely that you will wish all your text to begin in the top lefthand side of the page. For more flexibility, you can add content to layers that can be sized and moved more precisely around the page. You will find the Layers button under the Common tab in the Insert panel.

Similarly, images can be added using Insert, Image. A dialog box appears and from here you can navigate to the image on your hard drive. Once you have added your image, either into its own layer or alongside text, use the Properties palette (usually near the bottom of the screen) to check its position. (This palette will prove useful for fine-tuning the status of whatever object you have on the page.)

Bear in mind that text that runs too close to an image looks ugly. You can enter a number for pixels (10 is usually a good number) to create an invisible border around the image.

Site-wide design

One of the important features of web pages is the ability to link them to other documents. Adding hyperlinks in Dreamweaver is easy: you can either click on the Hyperlink button in the Insert panel or select the text or image you wish to use as a link and enter a valid address in the Properties palette.

Hyperlinks work in two ways: absolute links include the entire address, such as http://www.pcadvisor.co.uk, while relative links define a file in relation to the current page – for example, …/images/topbar.jpg. In general, you should use relative links for pages on your site and absolute links for external addresses.

In addition to basics such as adding text and images, Dreamweaver offers a highly customisable environment, only part of which we can cover here. The various panels on the righthand side of the work area provide you with one-button access to many advanced features. In the Design section, for example, you can apply styles and Behaviors, such as JavaScript or DHTML (dynamic HTML) functions to your pages, while the Code panel allows you to change individual tags, add snippets of JavaScript or HTML code and browse Dreamweaver's extensive reference library.

In the Files panel you will see a tab for the Site manager. To define a site, go to Site, New Site and enter relevant details such as where local files are stored and your server address. Once you have defined a site, you can use other features

in Dreamweaver such as the ability to create templates or change links site-wide.

To make a template, create a normal page then go to File, Save as Template. Once a template is created, the basic components of a page are locked. To add new content you need to define certain areas as editable. With templates in place, if you wish to change the overall look and feel of a site, you only need to edit one file.

Stylesheets

Stylesheets are a huge bonus to working with text. While styles can be set *ad hoc* within an HTML document, if you create a stylesheet using Dreamweaver you can link to it from all your files. If you don't like the look of a particular heading – for example, you want it to be a different colour – simply change the stylesheet and your whole site will reflect those changes.

To create a stylesheet, go to File, New and, under the General tab, select CSS Style Sheets. CSS stands for cascading stylesheets, meaning that sheets can be placed one inside another, or 'cascaded'.

Dreamweaver offers a number of template designs and selecting one of these will show something like the following in the main code window:

```
body { background-color: blue;
        font-family: Arial,
        Helvetica, sans-serif;
        font-size: 12px;
        line-height: 24px;
        color: yellow;}
```

Stylesheets control such things as text and background colour, positions of paragraphs and font or line sizes and are usually saved with the CSS extension. To use a stylesheet you must link to it: create a web page then go to Text, CSS Styles, Attach Style Sheet. In the dialog box that appears navigate to the appropriate stylesheet on your hard drive and make sure that Link is selected in the Add As section. While you can import stylesheets into HTML documents, editing a single stylesheet will change the layout of an entire site if you link to a CSS file instead.

Dynamic features

Text and images still remain fundamental to web design, but Dreamweaver also supports a wide range of more dynamic features. JavaScript and DHTML components can be added with a few mouse clicks, while designers who work with applications such as Flash or Director can import Shockwave and Flash files quickly and easily.

The most commonly used dynamic features are rollover images and these are added by clicking on the Rollover Image button in the Insert panel under Dreamweaver's Common tab. In the dialog box that appears, select two images for your rollover, provide a link and name then click ok.
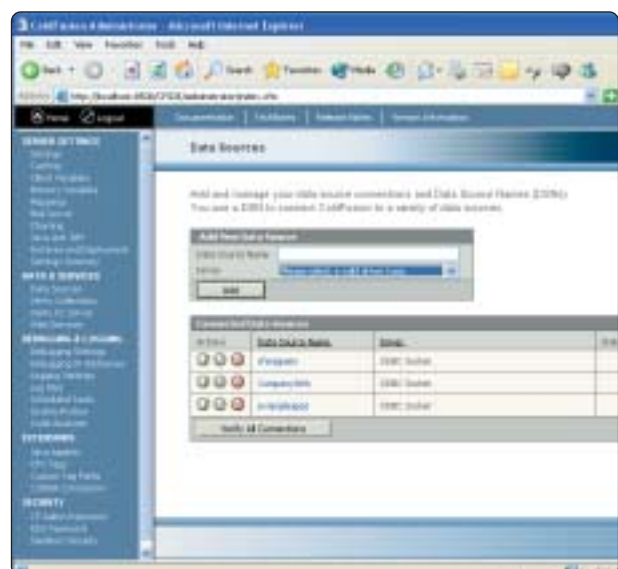
Other components can be found under other tabs on the Insert panel. The Media tab, for example, is where you will find buttons to add Java, Shockwave or Flash applets: click each button and navigate to the appropriate file on your system.

A good way to add interactivity to a site is to include a form to collect information
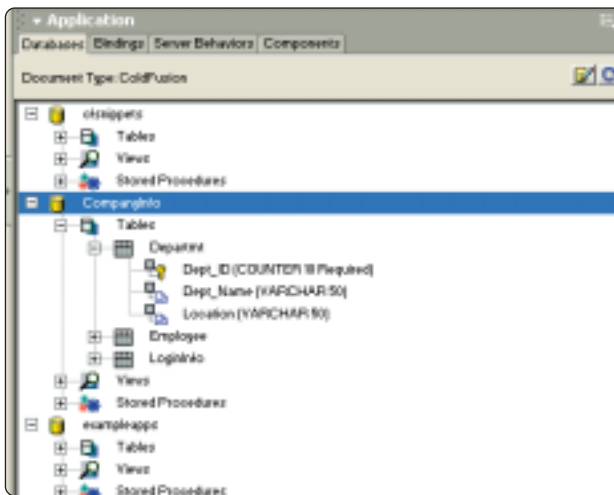
Creating dynamic sites

1 If you have the Studio version of MX, you will also have a copy of ColdFusion Personal Edition, a powerful server that allows you to create dynamic websites. To create a database-driven site, first of all you must register a data source using Microsoft's ODBC Data Source Administrator. You will find this in the Control Panel – open the Administrator and click on the DSN tab. Installing ColdFusion adds a couple of sample DSN sources, but you can include more by clicking the Add button and selecting a data source and type
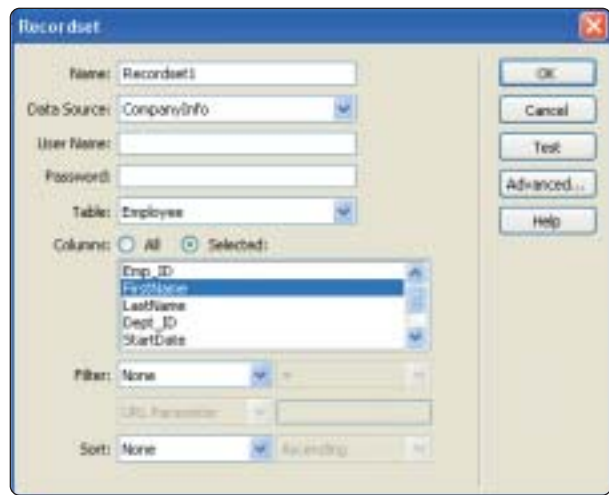
2 Once you have registered a data source, you need to make sure that it is available to ColdFusion. Open ColdFusion, enter your administrator password and click on the menu entry for Data Sources under Data and Services. This lists databases that will be available to your site. If your database is not listed, enter the name of the data source you created in the ODBC Administrator, select the appropriate data type and click Add. You will now be able to use that database to create a dynamic site

Add data to a page

1 Once your database is registered and a site with dynamic server technology has been set up in Dreamweaver, you are ready to begin adding data sources to your page. The structure of a page is laid out as normal, but its content is drawn from the data source. To do this, click on the Application panel and, under the Databases tab, select the database that you wish to use by clicking on the '+' button. This will display sample ColdFusion databases as well as any others that you have added

2 Select the database you wish to use then add a Recordset. From the Bindings tab in the Applications panel, click on the '+' button and select Recordset. In the dialog box that appears, select a database, a table from that database and the relevant columns that you wish to use, as well as any filters or passwords. Once your Recordset is defined, add fields to your web page from the Application tab in the Insert panel. Begin with a Master/Detail Page Set that will output the results of your records. For more information, look under the Developing Applications Rapidly section of Dreamweaver's online help

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from visitors. Not surprisingly, commonly used form elements are found under the Forms tab. To define which part of a page will collect information from users, click the Form button and then add elements such as text fields, menus and different styles of buttons (radio, checkbox, submit or reset) to your form.

For more advanced features you can take advantage of Dreamweaver's built-in JavaScript and DHTML functions or Behaviors. In the Design panel, click on the Behaviors tab, then click the '+' button to add scripts and advanced features. Behaviors can be displayed according to whether they work with different browsers and some functions are only available with certain HTML tags – for example, images or forms. If you no longer require a Behavior, click on the '-' button to remove it.

Active pages

So far most of the elements of Dreamweaver we have considered have been available in previous versions of the application, although they are modified in the latest release. What has revolutionised Dreamweaver MX is the integration of active data features that were previously part of UltraDev, such as the ability to create a database-driven website.

The boxes in this article cover the basics of setting up a dynamic site, but a web server is fundamental to the process – pages cannot simply be stored in a folder on a hard drive as with static sites. Instead, requests from the browser must be interpreted by server software and HTML output accordingly. Windows NT, 2000 and XP Professional users will have Microsoft's IIS (Internet Information Server), but alternatives include the

popular Apache app while Macromedia's MX Studio package also includes a test version of its powerful ColdFusion server.

Once your server is installed, you need to define a site that uses an active server technology, such as Microsoft's ASP (active server pages) or ColdFusion and register a database using Microsoft's ODBC Administrator. The location of this varies under different versions of Windows: in XP, it is found in the Control Panel under Administrative Tools.

As you'll see in the walkthrough, the final step once your page is laid out is to bind your registered data source to the page. While this is more complex than creating static pages, Dreamweaver does most of the important work for you, creating database or SQL queries that can search and organise your information from dynamic sources. ■