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Content control

In Part 2 of our series on content management systems, David Peterson demonstrates how FrontPage 2002 has the power to keep your Web site functioning smoothly

MAYBE YOU'VE REALISED that the guy from IT with an HTML editor isn't going to scale very well when your Web site doubles in size next year. Perhaps your team spends more time fixing mistakes than producing Web site content. Or maybe you just feel that your Web site is spinning out of control.

In any event, you've decided that you need a content management system (CMS). Now what?

If you're very lucky, you'll have several months and several hundred thousand dollars to spend to implement a top-of-the-line content management system, such as Vignette. Alternatively, you may have been given a couple of months and a couple of hundred thousand dollars to implement a mid-line system like Microsoft Content Management Server. In the current environment, though, you're more likely to have been given two weeks and told to 'work with existing resources' – meaning that all you've got to work with is a junior developer who's between projects and whatever you can scavenge from the furniture budget.

The bottom end of the CMS market is not a particularly attractive place to be. There are certainly plenty of options available, but, with only a handful of exceptions, they tend to smell an awful lot like something a hobbyist threw together over the holidays. They can be fine if your requirements aren't too sophisticated. But let's face it, if you only had simple requirements you probably wouldn't be looking for a content management system in the first place.

Your first reaction may be to grab a copy of Microsoft Access and write your own content management system – but as someone who has been down that road, I wouldn't recommend it. Creating

something that will take content stored in a database and serve it up to HTML templates is easy enough. But when you start to work on the best way of getting the content into the database in the first place and ensuring its ongoing integrity, you'll find yourself running into a brick wall. The most likely outcome will be yet another half-baked content management system like those that already litter the market.

The key shortcoming of many of these systems (and even some of the pricier ones) is that, despite the content management badging, their actual function is only that of content delivery management – dealing with content that has already been prepared and is ready for presentation. A genuine content management solution recognises the need to create content and provides an environment that will help a team author, edit, review and collaborate to prepare new Web site content. Any system that can't support this is unlikely to provide a satisfactory solution to your problem.

So where does that leave you if you need to

For those who came in late ...

If you are a new *Communiqué* member (or if someone in the office pinched last month's issue), here is a quick recap of the features of a content management system discussed in the first instalment of this series in the June issue:

- Content creation and editing
- Templates
- Workflow
- Metadata tagging
- Versioning
- Collaboration
- Personalisation
- Security
- Scheduling and archiving
- Multiple delivery channels
- Syndication

CMS vs DMS

So is a content management system (CMS) the same as a document management system (DMS)? Not quite. Although both have workflow and version control features, they are intended to fulfil rather different purposes.

Historically, document management systems have had an internal focus, being chiefly concerned with the life cycle of electronic files within an organisation – expense claims, ISO 9000 documentation and so on. The content of these files – whether spreadsheets, Word documents or PowerPoint presentations – is of secondary importance to the management of the file itself.

A content management system, on the other hand, is interested in the information, rather than the container, and how best to present it to external consumers. By not tying the content to documents, a content management system is able to achieve complete flexibility in the presentation of information – even going so far as assembling content components on the fly, depending on user preferences and requirements.

Although it is possible to have a content management system based around documents, or a document management system based around content, such hybridised systems will always involve a degree of compromise in functionality.

do content management on a budget? The solution may be closer than you think – Microsoft FrontPage 2002.

FrontPage: a content management system?

FrontPage 2002 has come a long way from its humble origins. As well as being a fully-featured HTML development environment and site management tool, it also now provides the workflow and collaboration features essential for successful content creation and management.

If you do a quick comparison between the list of features that define a content management system from the first part of this series on CMS (see June issue, page 22) and the back of the FrontPage box, it would appear that FrontPage doesn't even come close to being a genuine content

management system. But appearances can be deceiving.

True, it has limited support for XML and won't handle content syndication or multiple delivery channels. But if you have only a few thousand pages to manage and don't require some of the more specialised content management system features, you may find it to be a more than adequate tool for your needs.

Scenario

Consider this: Let's look at BigCo. An imaginary Australian company with, let's say, 24 offices nationwide and a head office in Sydney, we can use it as an illustrative example of how FrontPage 2002 can successfully be used as a CMS.

The company structure is based around product lines rather than geography, meaning that employees from each product division are distributed between each of the regional offices. Shared services, such as marketing and IT, are centralised at head office. BigCo's marketing department manages the corporate Web site, with technical support from IT at head office, but the content producers themselves are scattered between the many regional offices.

The BigCo Web site reflects the corporate structure, with a section for each of the four product divisions. There is a common look and feel to the site, with minor variations between each division in order to balance product branding with the overall corporate identity.

These look-and-feel and branding elements are maintained by marketing, leaving the content teams from each of the divisions to concern themselves exclusively with Web site content, rather than the details of its presentation.

It's important to BigCo that its Web site be seen to 'move with the times', so the look and feel of the site has to be able to change every 12–18 months without the need to manually edit each page of content.

Each of the content teams has four to seven members, all of whom have a good working knowledge of their division's products, but little technical skill in Web site design and development. When new content is created, it may require the knowledge of more than one team

member, but due to the geographic dispersal of the teams, such collaboration can seldom occur in person and needs to be supported electronically. Naturally, with multiple team members working on a file at any given time, it's imperative that there be some mechanism to ensure that no-one saves over or accidentally deletes anyone else's work.

It's company policy that no content is to be published on the corporate Web site without a team leader first approving it. A senior manager must also approve certain types of content. Most content remains on the site indefinitely and may be periodically updated as required; news items, however, must be removed after seven days.

In summary, BigCo needs a system to support the following areas:

- content creation and editing;
- multiple readily modifiable templates;
- collaboration and teamwork;
- content approval and workflow; and
- content archiving.

Most readers would already be familiar with FrontPage's capabilities in content creation and editing (which need not concern us here), but how can it meet BigCo's other requirements?

Templates and branding

Because FrontPage's management of content is based primarily around HTML documents, it's not able to achieve true separation of content and its presentation (see the sidebar CMS vs DMS). However, a degree of flexibility is provided through the use of Themes, Stylesheets and Shared Borders, which allow the look and feel of the entire site to be managed from a single point without affecting the content itself.

BigCo's requirement for a differing look and feel between divisions can be supported with the use of subwebs, each of which may have its own Theme, Stylesheets and Shared Borders. Any changes to these can be cascaded to thousands of pages within minutes.

Collaboration and teamwork

The problem of different users saving over each other's work can be easily avoided with FrontPage's Document

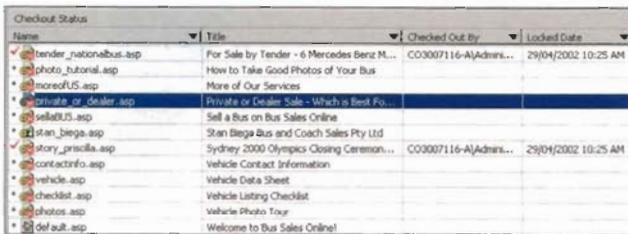
'If you have only a few thousand pages to manage, you'll find FrontPage 2002 a more than adequate tool'

Check-In/Check-Out feature:

- 1 Select 'Web Settings' from the Tools menu.
- 2 Check the 'Use document check-in and check-out' box.

Now all documents in the Web site will have a little red-tick marker next to them when a user has them checked out for editing.

A list of which documents have been checked out, when and to whom is achieved by running a 'Checkout Status' Workflow Report (see Figure 1).



Name	Title	Checked Out By	Locked Date
tender_nationalbus.asp	For Sale by Tender - 6 Mercedes Benz M...	CO3007116-A\Admini...	29/04/2002 10:25 AM
photo_tutorial.asp	How to Take Good Photos of Your Bus		
moreofUS.asp	More of Our Services		
private_or_dealer.asp	Private or Dealer Sale - Which is Best Fo...		
sellabus.asp	Sell a Bus on Bus Sales Online		
stan_bega.asp	Stan Bega Bus and Coach Sales Pty Ltd		
sydney_2000_olympic_closing_ceremon...	Sydney 2000 Olympic Closing Ceremon...	CO3007116-A\Admini...	29/04/2002 10:25 AM
vehicle.asp	Vehicle Contact Information		
vehicle_data_sheet.asp	Vehicle Data Sheet		
vehicle_listing_checklist.asp	Vehicle Listing Checklist		
vehicle_photos.asp	Vehicle Photo Tour		
welcome_to_bus_sales_online.asp	Welcome to Bus Sales Online!		

Figure 1: Reviewing checkout status

Additional collaboration features that FrontPage provides include Tasks for assigning work between team members, and Web Document Discussions to allow users to comment on each other's work (if SharePoint Team Services is installed on the web server).

Workflow

Workflow in FrontPage is based around document properties. To modify these properties, follow these steps:

- 1 Select one or more documents, right-click and select 'Properties...' from the pop-up menu.
- 2 Select the 'Workgroup' tab from the Document Properties dialog box.

From here a user can set the review status of a document, determine who is assigned to work on it and whether or not it's ready to be published (see Figure 2). For example, when a BigCo content producer has finished creating a new document, they would set the status to 'Pending Review', assign it to their team leader for approval and check the 'Exclude this file when publishing the rest of the web' box.

Any team member can review the documents that have been assigned to them

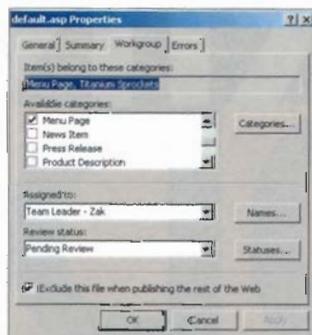


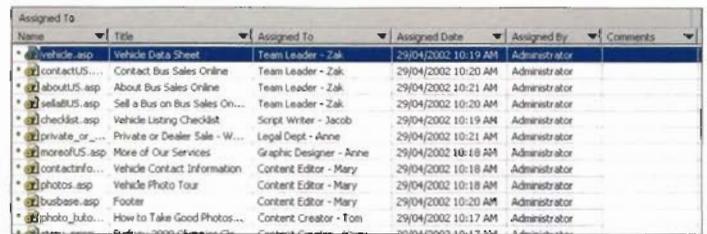
Figure 2: Workgroup properties

by running an 'Assigned To' Workflow Report (see Figure 3), which shows who has been assigned what documents, when and by whom.

A team leader can keep track of the status of the documents in the Web site using the 'Review Status' Workflow Report and the 'Publish Status' Workflow Report.

Content archiving

To find content that is due to be archived, a BigCo team leader would open up the



Name	Title	Assigned To	Assigned Date	Assigned By	Comments
vehicle.asp	Vehicle Data Sheet	Team Leader - Zak	29/04/2002 10:19 AM	Administrator	
contactus.asp	Contact Bus Sales Online	Team Leader - Zak	29/04/2002 10:20 AM	Administrator	
aboutus.asp	About Bus Sales Online	Team Leader - Zak	29/04/2002 10:21 AM	Administrator	
sellabus.asp	Sell a Bus on Bus Sales On...	Team Leader - Zak	29/04/2002 10:20 AM	Administrator	
checklist.asp	Vehicle Listing Checklist	Script Writer - Jacob	29/04/2002 10:19 AM	Administrator	
private_or_dealer.asp	Private or Dealer Sale - W...	Legal Dept - Anne	29/04/2002 10:21 AM	Administrator	
moreofUS.asp	More of Our Services	Graphic Designer - Anne	29/04/2002 10:18 AM	Administrator	
vehicle_data_sheet.asp	Vehicle Contact Information	Content Editor - Mary	29/04/2002 10:18 AM	Administrator	
photos.asp	Vehicle Photo Tour	Content Editor - Mary	29/04/2002 10:18 AM	Administrator	
footer.asp	Footer	Content Editor - Mary	29/04/2002 10:20 AM	Administrator	
photo_tutorial.asp	How to Take Good Photos...	Content Creator - Tom	29/04/2002 10:17 AM	Administrator	

Figure 3: Reviewing document assignment

'Older Files' Files Report and select '7 days' as the time frame to show a list of all documents more than a week old. They would then filter the report to only show relevant documents (for example, those in the news folder or those that contain 'news' in the title). The resulting list of files could then be deleted or moved to an archive folder as appropriate.

You want more?

Although FrontPage 2002 meets all of the requirements outlined in this scenario, there will certainly be situations where companies will require more. Even then FrontPage is able to rise to the occasion by 'plugging in' the functionality of other products. For example, FrontPage's metadata tagging through content categorisation is only really for internal use – for site reporting and automatic table of contents creation.

To create and maintain standard content and keyword metatags of the type that Internet search engines employ, you can use a product such as TagGen from HiSoftware.

Some sites will require comprehensive versioning of documents, allowing a detailed review of exactly what changes have been made between updates and allowing changes to be rolled back to any previous version.

Although FrontPage does not natively support these features, they can be introduced by integrating Microsoft's Visual SourceSafe product.

Other features can be enhanced from within FrontPage itself. Workflow based on document properties and reports has the advantage of being extremely flexible and being available out of the box with no more customisation required than the creation of a suitable list of team members and review status types.

However, it does lack a degree of control. For example, a content creator who makes a mistake setting document attributes may inadvertently shortcut the review and approval process and find their content published prematurely.

Fortunately, being part of the Office XP suite of products, FrontPage 2002 is fully scriptable, allowing a site's workflow rules to be enforced through Visual Basic for Applications code.

Alternatively, SharePoint Team Services can be installed on the FrontPage web server, providing FrontPage content developers with an even more sophisticated workflow and collaboration environment.

Conclusion

Microsoft FrontPage 2002 can be used to form the basis of a content management solution appropriate for the needs of many companies – particularly those working under a constrained budget and implementation schedule. However, those who require features such as true separation of form and content, multiple delivery channels and XML support will require a true content management system such as Microsoft Content Management Server. We'll review Microsoft Content Management Server in detail in Part 3 of our CMS series in a future issue. ©

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