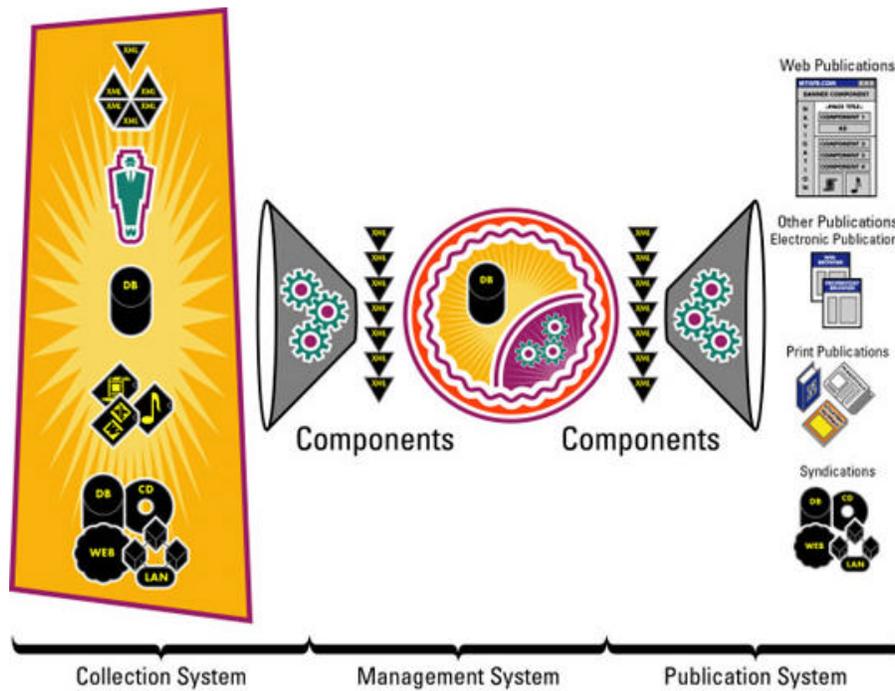


# Knowing When You Need a CMS

## A CM Domain White Paper

By Bob Boiko



This white paper is produced from the Content Management Domain which features the full text of the book "Content Management Bible," by Bob Boiko. Owners of the book may access the CM Domain at [www.metatorial.com](http://www.metatorial.com).

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Any organization that creates publications practices some form of content management. Even the sole proprietor organizes files on her hard drive and tries to keep track of her content and share it across publications. The sole proprietor, however, has little need for the formality and tight structure that I present here. But, if the sole proprietor grows to a small organization and then to a large organization, then file-system directories and informal content sharing begin to cost too much and take too long. A content management system (CMS) may then become necessary to help organize and automate the process.

You need a CMS if your collection, management, and publishing processes are too complex to manage informally.

You can gauge complexity by the following guidelines:

- ⚡ **The amount of content that you have.** This amount includes not only the number of items, but also the number of kinds of items that you're trying to manage.
- ⚡ **The amount of contribution.** Not only the number of contributors counts, but also their relationship to you, as well as the complexity of the existing content that you receive.
- ⚡ **The amount of change that you expect in your content.** Change can occur in the amount of content you add or remove from the system, or in the amount of design change that you intend to support.
- ⚡ **The number of publications that you intend to create.** Complexity in publication depends on the number of different publications that you intend to create, as well as on the degree of personalization that you intend to implement.

What you need to look for to determine whether you need a CMS is illustrated in Figure 1.

<u>Too much content</u> <ul style="list-style-type: none"> <li>• Content items</li> <li>• Content types</li> </ul>	<u>Too many contributors</u> <ul style="list-style-type: none"> <li>• Diverse authors</li> <li>• Complex sources</li> </ul>
<u>Too much change</u> <ul style="list-style-type: none"> <li>• Content throughput</li> <li>• Design revision</li> </ul>	<u>Too many publications</u> <ul style="list-style-type: none"> <li>• Content channels</li> <li>• Personalization</li> </ul>

**Figure 1:** I break the complexity of a content problem into four areas of concern.

## Gauging the Amount of Content

You need a CMS if you have too much content to process by hand. Although the concepts of content management can help you with even small projects, until you have a big system, you can't realize enough cost savings to justify the effort that constructing a solid CMS involves.

What is a "big" system? A big system is one that's too big to fit in one person's head. Say, for example, that, in the past, you counted on your Webmaster to simply know what content's on your site and where it all goes. Maybe you recently started to notice that she can no longer keep up with the influx of information and can no longer quickly assess and place new information on your site. You may now need a system to help the Webmaster (or, at least, some other people to help). In particular, a big system has the following characteristics:

⚡ **A lot of content:** Based on my experience, by the time that a Web site reaches 1,000 pages, it's clearly too big for anyone to manage informally. This number, however, is far from standard. You must view the sheer size of the content base in the context of all the other factors that I list here to finally decide whether your situation warrants a CMS. And, although pages make up the usual unit of site size, the number of content components on your site is a better measure of the size of the content base than is the number of pages.

⚡ **A lot of content types:** A content base of 1,000 components, all of the same type, is obviously easier to manage than a base of 1,000 components of five different types. For each component type, you must invent, implement, and oversee a corresponding collection, management, and publishing process. The more types that you have, the harder this task becomes to accomplish without help.

You manage 1,000 items of content the way that you manage 1,000 items of anything: by arranging them into groups and storing them in a place where you can find them by type or by other key qualities (color, size, and the like). Content management systems provide the tools to divide content into like chunks (or components), arrange them into groups (in outlines and indexes), and store them in a place where you can get to them (in databases and XML files). By using a CMS to break 1,000 components into five types, you reduce the number of things that you need to know from 1,000 to five. Rather than needing to know what's in each of the 1,000 components, you need to know only what's in each of the five types. Reducing the complexity of a body of content so that you can again understand and master it is what content management is all about.

As you're measuring the amount of content you have, don't forget to include multiple languages or localities. If you have 100 items of content, for example, but you must deliver them in 10 languages, then you really have 1,000 items of content to deliver.

## ***Managing the Size of the Contribution Base***

If one person creates all the content that you provide, then you can usually count on her to create her own rules and follow them. As soon as you involve two people in the creation process, however, they need to agree on these rules and not change them without prior notice. If the system expands to dozens or hundreds of contributors, a much more complex system of automatically enforceable rules becomes necessary.

Suppose, for example, that you have 30 people throughout the organization whose task is to create Frequently Asked Question (FAQ) items. Without further instruction, they all go their merry ways, creating FAQs in any way that they choose. The result is 30 different types of FAQs that you must reconcile. If, on the other hand, you're using a CMS, you can define a FAQ content class as follows:

- ⚡⚡ FAQs have the following required elements: question, answer, date, submitter, and subject area.
- ⚡⚡ Questions may run no longer than 256 characters and may contain no formatting. They must start with a question word (who, what, where, when, why, or how).
- ⚡⚡ Answers can run no longer than 3,000 characters with an optional link to more information. They can contain only the formatting codes that you specify in a document.
- ⚡⚡ Dates must appear in the correct format (MM/DD/YYYY for example).
- ⚡⚡ Submitter name must match exactly one of the names on the list of submitters.
- ⚡⚡ Subject areas must come from your accepted list. A FAQ must appear in at least one subject area but can appear in others as well.

You can probably see that simply writing and publishing these rules goes a long way toward standardizing FAQs. With a CMS at your disposal, however, you can turn these rules into part of the fabric of submission, as the following steps describe:

1. First, you can specify in the CMS that you have a content class that you call FAQ. As an author submits a piece of content, that author must specify whether it's a FAQ or something else. No space is available for submitting content that's not of some recognized class
2. Second, you specify in the CMS that the FAQ class displays certain elements. If an author submits a FAQ, no discussion about what a FAQ consists of is possible. Either it displays the elements that the CMS knows about or it's not a FAQ.
3. Third, you specify in the CMS which values you allow for each of the elements of a FAQ so that the CMS can validate the content that an author submits. If an author types a date for a FAQ, the CMS can then validate it and decide whether it's an acceptable value for the date element. If it's not an appropriate value, then you can ask the author to correct it before submitting the item. For textual content, you have somewhat less control. Authors can, if they choose, type nonsense and you have virtually no way to validate whether the content has any meaning. You can, however, set limits as to the length of content in a text field.
4. Finally, the CMS can give you a convenient and easy-to-use way to present and facilitate the submission process. You can, for example, create a Web-based form for FAQs that neatly lists all the elements and requirements (shown in Figure 2).

**Figure 2:** A hypothetical Web form for submitting FAQs

Where limitations exist, the form can state them. Where choices are constrained (for example, to lists and check marks), the form can make them simple to specify. Many commercial CMS products provide strong support for Web-based forms that seriously reduces the time necessary to create and maintain them.

In addition to authoring it, most organizations acquire information as well. Acquired content is originally created for some other purpose. To bend acquired content to your own purpose requires work. The amount of work depends on how different the content source is from what you want, as the following list describes:

- ⚡⚡ If you must convert the source from a format that's different from the one that you need for your system, that process requires work. Such conversion can prove quite difficult if, for example, your source is Microsoft Word format, and you must convert it to XML.
- ⚡⚡ If one unit of the source yields multiple content components, then acquisition will require more work. If, for example, you must split one source document into three articles, two reviews, and five editorials, then someone must decide exactly where to split it and do the work to split it.
- ⚡⚡ If the information that you want to find and extract in the source is poorly marked or isn't present, then finding and extracting that information requires work. If you need to find an author for each article in a source, for example, but the source doesn't always cite authors in the same way, then someone must do extra work to find and extract authors' names.

A CMS can't tell you what rules you need to keep authors consistent. Neither can it tell you how to convert, divide, or extract information from acquired sources. After *you* decide these rules, however, a CMS can help you keep the rules organized and can really help you enforce them.

In any case, the more complex that your acquisition sources are, and the bigger and more diverse is your author base, the bigger is your content management problem.

## ***Anticipating the Amount of Change***

Most people focus on the volume of content that they have. In fact, after the system is up and running, the amount of change, not the volume, is what determines the complexity of a system. A 1,000-component system is simple if it never changes. The following two sorts of changes most directly affect complexity:

⚡ **Component throughput:** This type of change refers to the number of content components that you modify in some way per unit of time. If, for example, you intend to create 100 new components per week, and believe that about 50 per week are sure to become outdated and need deleting or archiving, and that about 50 more need editing in the same period, then your total throughput is actually 200 components per week.

⚡ **Frequency of design change:** This type of change refers to the rate at which you plan to do major layout, look, or navigational redesigns on your publications. In the Web world, for some level of redesign to occur monthly isn't unusual. The more frequently that you change the design of your publications, the more you need a content management system that can separate the design of your publications from their content so that, as the design changes, you don't need to modify each page of the publication by hand.

The act of updating or deleting a content component can be fast, but the process of finding the components to change or delete can prove slow if you don't have an effective CMS. Suppose, for example, that I have 1,000 FAQ components and want to review any that were submitted more than a year ago. I must either update them or delete them if they're no longer relevant. If these FAQs are on HTML pages, then I may get stuck going through each page to decide which ones to work on. If the editor is even remotely like me, at the end of the process, she probably wonders whether she inadvertently messed something up on any of the 1,000 pages she touched.

If you store the FAQs as components in a CMS, however, then you can simply search for FAQ components with a date more than a year old and review only the ones of interest. As you save each changed component, the system validates it so that you can be confident that it's still constructed correctly. Even better, you can possibly use your CMS workflow module to send you an e-mail reminder message after a FAQ ages past a year. The message can even include the FAQ and a link to it in the CMS. If it's okay, then you just delete the message. If the FAQ needs changes, then you click the link in the e-mail message and go directly to the CMS Web form for that FAQ, where you can do your work.

Outside of a CMS, making design changes can become a nightmare. Simply moving a button from one position to another may require a Web editor to open and make the same change on all the pages of the site. In a CMS, design changes become quite easy. Suppose, for example, that you want to change the layout of your FAQ page from answers below questions to answers to the right of questions in a table. If your FAQs are in an HTML file, you need to perform an extensive edit of the page and undoubtedly mess something up. If, on the other hand, you store your FAQs in components in a CMS, the CMS builds the HTML FAQ page automatically from a page template (shown in Figure 3).

<pre> [Template] [Get FAQs] [For Each FAQ]   &lt;p&gt;   [Insert FAQ Question]   &lt;br&gt;   [Insert FAQ Answer] [Next FAQ] [Template] </pre>	<pre> [Template] [Get FAQs] [For Each FAQ]   &lt;tr&gt;   &lt;td&gt;     [Insert FAQ Question]   &lt;/td&gt;   &lt;td&gt;     [Insert FAQ Answer]   &lt;/td&gt;   &lt;tr&gt; [Next FAQ] [Template] </pre>
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**Figure 3:** This illustration shows two templates for the same content. A small change in a template can lead to a global change in design.

The templates that I provide in the figure show the small bit of code that inserts each question and answer. For each FAQ, the template on the left inserts an HTML paragraph break (<p>), following it with the question, an HTML line break (<br>), and an answer. The template on the right goes through every FAQ, too. Instead of separating the questions and answers with a line break, however, it embeds them in an HTML table.

In a minute or two of edits to the template on the left, you can change it to the template on the right, thus changing the layout for any number of pages. You don't touch any FAQs, so you can't possibly mess any up. In addition, you can try different table layouts and styles very quickly, simply by changing a few lines in the template. Of course, not all templates are this simple, and even the ones that I show here aren't actual code, but just short descriptions that stand in for code. Still, you can see that, with the help of templates, design changes needn't prove hard or scary.

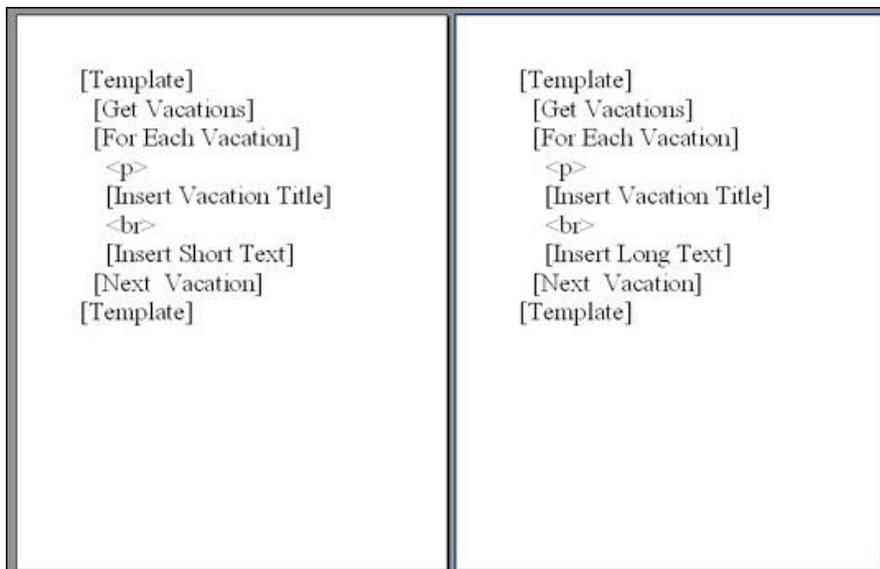
## ***Knowing the Number of Publications***

Even a small system can become complex if you need it to create a number of distinct publications. Compare, for example, two businesses that both sell the same 100 vacation packages. One company provides a single printed brochure for each package. The second business provides brochures, a Web site that lists all the packages, a printed magazine that features some of the packages, and a set of one-page, black-and-white, electronically faxable fact sheets. All other factors being equal, the second company clearly faces a much more complex task. In gauging how many publications you have, consider the following two factors:

- ⚡ ⚡ **How many publication types you have.** Above, the first company offers one type of publication (a brochure) and the second uses four.
- ⚡ ⚡ **How highly personalized your publications are.** A Web site that looks exactly the same regardless of who views it is, for example, obviously less complex than one that presents a very different page depending on the user. The same principle holds for nonelectronic publications. Complexity certainly rises for the company creating only brochures, if they decide that they want to publish five variations of the vacation package descriptions, depending on the family income level of the recipient.

If you want to create a number of publications from the same content without using a CMS, your only realistic option is to produce them in series and then make independent updates to each. The vacation company with four publications, for example, is likely to first create a set of brochures with all the right facts and pictures, as well as all the formatting and layout necessary, on a glossy brochure. They then pass the source files for the brochures on to three teams (or, as likely, one person wearing three hats). The Web team strips away all the formatting and layout and rearranges the brochures into Web pages. The magazine team reintroduces all the extra text that the brochure creator needed to delete for lack of space, and also dismantles and reassembles the brochure. Finally, the fax team does a similar reconstruction of the brochures, simplifying the layout and deleting most of the graphics that don't transmit well via fax. If all goes well, four publications may prove only twice the work of one. But all rarely goes well. Prices change, times change, and resorts send in better photos. Each publication must deal with these changes independently. You have no way to avoid each change becoming four times the effort. Across a large number of vacation packages, this extra effort can represent a huge cost (not to mention the cost of customer service and angry customers because of inevitably inconsistent information).

Using a CMS streamlines this process enormously. The CMS can contain a set of Vacation Package components. Each component contains enough elements to cover the needs of any of the publications. A Vacation Package component can, for example, contain both a Short Text and a Long Text element. Short Text is what you need for the fax version, while Long Text is for the Web site (see Figure 4).



**Figure 4:** Small differences in templates can make very different publications.

To create the two publications, the CMS simply uses two different templates. The one on the left in Figure 4 inserts the Short Text, and so you can use it to create the faxes (given that your system can fax HTML). The one on the right inserts the Long Text. You can use it to create Web pages from the same Vacation Package components. Of course, templates generally involve much more than I show here, but the idea is the same. The same content produces two very different publications depending on which template you use.

You do incur an up-front cost for developing these templates, but much of it's the same cost that you incur designing these publications in the first place. So, the cost of developing the four publications in a CMS is more than the cost of developing them separately — but not necessarily *that* much more. (Your mileage may vary.)

The real advantages to a CMS approach come after you start to produce publications. As content changes occur, they occur once in the component in the CMS repository. Then, you simply hit the button to rebuild your publications. Or, for dynamic publications, after each updated component is approved, it automatically appears for any Web visitor who requests that page. Any time that you create a new publication, it's guaranteed to contain the most up-to-date information. Your staff is less stressed, thereby, and your customers are more satisfied.

**Note**

You must wait a few years for a CMS that can update magazines and brochures that are already printed. It's hard to make ink on a page rearrange itself.

Personalization adds an entirely new dimension to publications. On the Web, you're not surprised anymore that a site knows your name and offers you content different from that for other users. Even in the print world, the custom printing of magazines or catalogs that offer a look and content specific to unique customer segments is becoming more common for many publishers.

The whole point of personalization is to locate and deliver content that's well-targeted to a particular audience. If you've ever tried to target an audience without the tagging, storage, and retrieval functions of a CMS, then you no doubt found that you must create the equivalent of a CMS yourself. By using a CMS, especially one offering strong personalization tools, the job becomes much easier.

The degree of personalization that you want to achieve matters. If you simply want to put someone's name at the top of a Web page, then you don't need a CMS. If, however, you want to restructure the look and feel of a page, and lay out targeted content depending on who's visiting, then you need a CMS.

***Estimating Complexity***

Content management isn't an exact science. It offers no real governing equations and laws. Still, for the purposes of level-setting and estimation, I propose the following formula to yield a rough guide to the complexity of a content system:

$$(Authors) \times (Sources) \times (Components) \times (Types) \times (Throughput) \times (Publications) \times (Personalization) \times (Redesigns)$$

Table 8-1 explains the various factors and values of this formula.

Table 8-1 The Factors of a Content System

Factor	Description	Value
Authors	The number of authors you intend to include.	For fewer than 20 authors and no complex information sources, the value is 1. For more than 20 authors, the value is the number of authors divided by 20.
Sources	The number of complex sources.	For one or zero complex sources, the value is 1. For two or more complex sources, the value is the number of sources divided by 2.

Components	The number of components (or pages if you can't count components) in the system at its inception.	For 1 to 500 components, the value is 0.5. For 501 to 1,000 components, the value is 1. For more than 1,000 components, the value is the number of components divided by 1,000.
Types	The number of component types in the system, calculated as in column 3.	For one to three types, the value is 0.5. For four and five types, the value is 1. For more than five types, the value is the number of types divided by 5.
Throughput	The number of components created or modified per week plus the number of components archived or deleted per week.	For zero to 25 components, the value is 0.5. For 26 to 50 components, the value is 1. For more than 50 components, the value is the number of components divided by 50.
Publications	The total number of different publications the system must create.	The number of publications.
Personalization	The degree of personalization that you intend for your publications.	A value of 1 indicates no personalization; 2 indicates that you personalize for a small number of large user segments; 3 indicates that you personalize for a large number of small user segments; 4 indicates that you personalize for each user. In all cases, the personalization needs to be more simply putting someone's name at the top of a page.
Redesigns	The number of major layout, look, or navigational redesigns that you plan to perform per year.	For one to two redesigns, the value is 1. For more than two redesigns per year, the value is the number of redesigns divided by 2

The way that the equation works is to multiply all the factors that influence complexity, as follows:

⚡⚡ All the factors have some method for arriving at a quantity (components per week, redesigns per year, and so on).

Some factors also have a scaling value so that you can compare their quantities on a par with the rest. The number of components, for example, you divide by 1,000. If you don't divide by 1,000, the effect of one new component on the overall complexity of the system is the same as the effect of one new publication. From another angle, you can say that the effect of adding a single component to the system is one one-thousandth as great as the effect of adding a publication. (I created these scaling values based on intuition and experience.)

I've imposed values on the components, types, and throughput if they're below threshold values. I add these thresholds so that the factors don't gain undue influence over the others at small values. For example, for a system with 50 components, the components value is 0.5 because of the threshold I imposed. Without the threshold, the value would be 0.05, which would unduly bring down the overall value of the equation.

As you gain experience with your own system, you can tweak the scaling factors to best reflect the relative importance of the factors that you see. You can also add factors that you determine affect complexity in your situation.

I designed the equation so that a result of one is the break point for recommending a content management system. At this value and higher, a content management system is likely to prove a valuable asset in managing the complexity that you face. For results of less than one, the value of a content management system is questionable, and as the result increases from one, the necessity of a system increases.

#### Note

I did not impose caps on the values of the factors. Therefore, the overall value of the equation can get very high very quickly. Don't be surprised if your large systems score in the thousands.

In the following sections, I run through a few scenarios that illustrate the use of this formula.

### Vacation company "A"

I start by following the example of the brochure-only vacation company. In addition to what I've already stated, assume that the company also wants to do the following:

Produce or change two new brochures per week.

Redesign the brochures two times per year.

Have only one person do all the authoring.

Their data arrays as follows:

Complexity Variables

Authors	Sources	Components	Types	Throughput	Publications	Personalization	Redesigns
1	0	100	1	2	1	1	2

Complexity Values

Authors	Sources	Components	Types	Throughput	Publications	Personalization	Redesigns
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1      1      .5      .5      .5      1      1      1

The calculation is as follows:

$$[1] \times [1] \times [.5] \times [.5] \times [.5] \times [1] \times [1] \times [1] = .0125$$

At a complexity value of .0125 (1/8), this company's need for a CMS is small. It may benefit from getting more organized, but unless its employees plan to change what they're doing, I see no reason for them to invest the time or money necessary to put a CMS in place.

## Vacation company "B"

Now I'm looking at a second vacation company. Say that the company now acts as a broker for many vacation package companies, performing the following tasks:

- ☞ It handles 600 vacation packages of four basic types.
- ☞ Each week, 30-40 of these packages change in some way.
- ☞ The company's only publication is a Web site, which it wants to redesign two times per year.
- ☞ The company has two authors and one complex source (say, a set of printed materials) to digitize and tag.

The data on this company arrays as follows:

Complexity Variables

Authors	Sources	Components	Types	Throughput	Publications	Personalization	Redesigns
2	1	600	4	35	1	1	2

Complexity Values

Authors	Sources	Components	Types	Throughput	Publications	Personalization	Redesigns
1	1	1	1	1	1	1	1

The calculation is as follows:

$$[1] \times [1] = 1$$

At a complexity value of 1 (which I rigged, of course), this company could consider creating a CMS. A value of 1, however, doesn't indicate that the company's need is overwhelming. It would definitely benefit from the sort of thinking that a CMS requires, but, as likely as not, it can still get by with mostly manual processes.

The key question for this company is "Which way are we going?" If the numbers are steady, then a CMS is overkill. If the numbers are rising, then the company may want to start planning before the system starts to overwhelm its personnel.

## Vacation company "C"

Finally, I look at a vacation company with a big need. Say that it wants to dominate the vacation package industry by performing the following tasks:

- ✂✂ It plans to handle 1,600 vacation packages of 10 types.
- ✂✂ Each week, 100 of these packages change in some way.
- ✂✂ In addition to its Web site, which it wants to redesign two times per year, the company plans to produce a printed catalog and a set of data sheets that it can send out via fax.
- ✂✂ The company wants to personalize to at least the level of broad user segments by promoting the packages and extras that they believe each of these four audiences will be interested in.
- ✂✂ It has five authors and four complex sources of information (and, as luck has it, each vacation-package supplier has its own hard-to-convert format).

This company's data arrays as follows:

### Complexity Variables

Authors	Sources	Components	Types	Throughput	Publications	Personalization	Redesigns
5	4	1600	10	100	3	2	2

### Complexity Values

Authors	Sources	Components	Types	Throughput	Publications	Personalization	Redesigns
1	2 (4/2)	1.6 (1600/1000)	2	2 (100/50)	3	2	1

The calculation is as follows:

$$[1] \times [2] \times [1.6] \times [2] \times [2] \times [3] \times [2] \times [1] = 76.8$$

At a complexity value of 76.8, this company should definitely consider creating a CMS. I suspect that the five authors are straining to keep up with the workload, the redesigns are late, two of the three publications are out of date, and unless its employees are very organized, the company's lack of a system shows in the quality of its publications.

If it's like most of the aspiring companies I've seen, this situation is only the start. Management wants to see more publications, faster redesigns, and a higher throughput of information. If so, the managers are in just the right frame of mind to pay for a CMS.

## Evaluating your results

Table 8-2 summarizes these examples into a general framework for evaluating your own situation.

Table 8-2 Evaluating Your Need for a CMS

Complexity	Your Need for a Content Management System
Below 0.25	Little need for a system.
0.25 to 0.05	Could begin thinking about a system if you believe that your need may grow.
0.5 to 0.075	Should begin thinking about a system if you believe that your need is likely to grow.
0.75 to 1.0	This range is the beginning of the gray zone between a need and no need. In this range, go with your intuition about what you need. Take into account whether your complexity may grow. If yes, this point is a good time to begin a content management analysis in preparation. If your need isn't likely to grow, a system may well prove more effort than it's worth.
1.0 to 1.5	This range is still in the gray zone. A system, however, is more likely a need than not in this region. Even if your complexity doesn't expect to grow, a small system may save more than it costs.
1.5 to 10.0	A system is recommended. You can, perhaps, start slowly or cover the factors that have the highest values, but eventually you want to implement a system.
Above 10.0	A system is necessary. You're likely experiencing content management problems now. If your complexity is much more than 10 and is still growing, you may need to act quickly to either control complexity growth or implement the parts of a system that relieve the highest pressures. As your complexity becomes much greater than 10 (say 1000) your need may become acute.

I want to emphasize again that I've designed this method to help you estimate, not pin-down, your need. At its core is the assertion that a set of factors affect complexity and, therefore, the need for a CMS. Whether the factors that I present are the complete set for your situation, and whether the scaling that I provide adequately reflects the relative importance of these factors in your organization and content base, is really up to you to decide.

In addition to giving you a ballpark estimate of your need for content management, this formula also helps you focus on the capabilities that you need to find in whatever system you choose. If your need for level 4 personalization is what's driving your complexity number so high, for example, you can immediately assume that your solution must be very apt at personalization. And, you can begin to apply whatever sort of near-term solution that you can find to personalization to buy you time to implement a full system.

## **Summary**

If you ask most people why they may need a system to measure their content, they're likely to say, "Because we have too much." That point, however, is just the beginning of the story, as the following list indicates:

- ⚡ Too much content can mean too many items or too many types of items.
- ⚡ Too many contributors or too much hard-to-process information spurs the need for a CMS.
- ⚡ Too much change in the content, or its design in publications, is also a reason to use a CMS.
- ⚡ Finally, too many different publications, or a high need for personalization in your publications can prove reason enough to pursue a CMS.

Using the rough calculation that I provide in this white paper you can begin to assess your own need for a CMS and decide whether — or when — you need to make the leap.