

Content Management

Assessment & Planning Guide

Zanibal LLC

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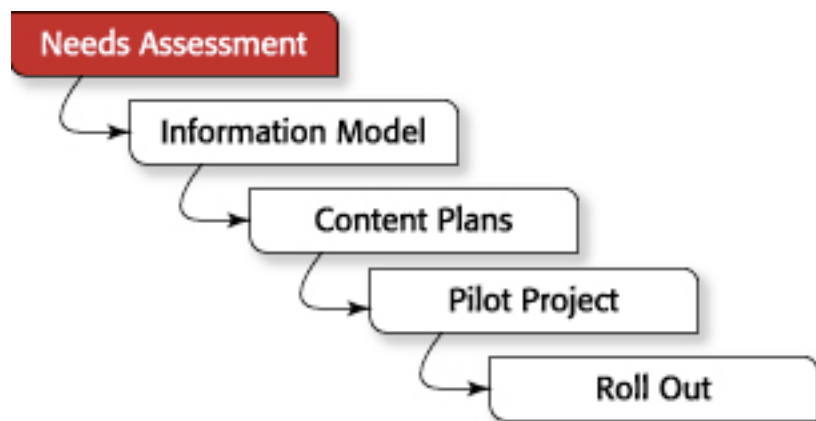
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Needs Assessment

Step 1: Create a vision of your users' experience

We create a vision of your users' experience with information, both inside and outside your organization. That means we gather information on the current user experience by understanding the successes and failures of that experience.



After information gathering comes analysis. If your users' experience is not optimal today, we define how it should change if your content-management solution is to succeed. The focus of our analysis is understanding the dimensions of your content-management solution—the point of view of each relevant group in the user community as well as that of the authors. We identify the many ways in which you might want to target information specifically to particular staff members, customers, and partners.

Step 2: Conduct an inventory your current information resources

We conduct a complete inventory of your current information resources. Not only must we catalog and categorize the information you now produce, but we must compare what you have today with what we have discovered is really needed by your users or might be needed in the future. Remember that just because information exists does not mean that someone, somewhere, finds it useful.

Step 3: Look at the processes your organization uses

We look closely at the processes that are used throughout your organization to produce, approve, and disseminate information resources. We find out who authors, who reuses information coming from other parts of the organization, and who reviews and approves information. We learn what tools are used to create your information resources and how well they are

used. We ask if authors use format styles in their documents. We identify how your information resources are currently disseminated or published at present—in print, in HTML, on CD-ROM, in help systems, and on the Web.

Step 4: Learn what technologies your organization uses

Finally, we learn what technologies your organizations uses to author, store, retrieve, and publish information. We investigate systems that are already in place in your organization, especially if they are home-grown or specialized proprietary solutions serving the needs of one department. We understand how your information is stored and accessed. We discuss with your Information Technology (IT) organization which database systems your company already owns and what their capacity might be. We find out if any other part of the organization is already investigating a content-management solution.

Deliverables

From our Phase 1 investigation, we prepare a report and recommendation. The report will include our analysis of the business problem at hand and how its solution will improve your company's profitability. Our business case for content management will show what it costs to continue handling content as it is done today, what the short-comings are of the current approach, and what efficiencies and cost savings might be realized with a new and better solution.

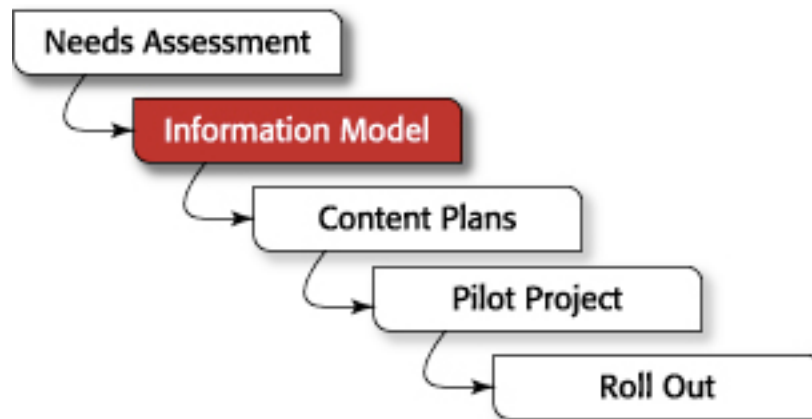
We propose a time line for a project to implement a content-management solution and recommend who should be involved in the project. We include your most experienced people, those knowledgeable about the process, as well as new people who bring a fresh perspective. We note if additional human resources are needed or how people might be trained in the process.

Once the plan has been accepted, we help you ensure that you have the funding and staffing you need to move to Phase 2.

Information Model

Step 1: Define the dimensions of your Information Model

We begin by defining the dimensions to identify the categories in your Information Model. These categories become the metadata we will use to label the content and make it modular.



First, the dimensions must be based on business information requirements. For example, we may categorize different product types and models, market segments, or subject matter.

Second, the dimensions must be based on author requirements. For example, we may categorize information by author, title, ID, editor, approver, original date, revision dates, version number, source and so on.

Third, we base the dimensions on user requirements. For example, we may categorize information by user job, skill level, experience, language, country, and so on.

We find it useful to develop use cases or scenarios of use, narratives that describe how authors, business analysts, and users will interact with information in the future. The more use cases we are able to construct, the better your solutions are likely to be. Not only will use cases allow us to define author, user, and content requirements more precisely, but they will provide us with a valuable way to evaluate tools and technology.

Your Information Model provides the terminology (taxonomy) to identify all the elements in your repository. One of the unexpected benefits of the process is discovering additional opportunities to improve your content, workflow, and reuse. It is much easier and less expensive to discover these opportunities early rather than later in the process. Using our expertise is likely to result in significantly lower future costs.

Step 2: Identify your information types

Then, we move on to identifying your information types. Information types define the kind of content your authors create and how the details are organized. Each information type will be based on the needs of your user community. A typical set of information types for technical information includes concepts, procedures, and reference modules. More specific information types can be derived from these basic types. For example, your organization might need different information types for maintenance procedures and end-user procedures.

Step 3: Review your delivery requirements

Next, we review your delivery requirements. What can be automated? What can be personalized or customized? What media must be supported now and in the future?

Step 4: Identify the content units

Once we have identified a minimal set of information types, we go inside the types and identify the content units that authors will use to construct the types. The content units are the components of the subject matter that will guide the development of formal Document Type Definitions (style sheets in XML or SGML) if you plan to use structured authoring systems.

Step 5: Investigate technology solutions

At the same time that we are defining the three-tiered structure of your Information Model (dimensions, information types, content units), we may begin to investigate technology solutions. However, we strongly recommend waiting until after your Information Model is quite firm to define the technology you need. Until you know in some detail how you want to deliver information to your user community and we formulate your Information Model, you are not ready to make a sound technology decision.

Step 6: Write a functional requirements document

We use all of the information we have gathered thus far to write a functional requirements document. We detail how you want to support your authors with authoring and workflow capabilities, what the content-management system must include so that you can store, manage, and retrieve modules from the repository, and, most important, how you should

assemble and deliver information to your users.

We do not specify and design solutions. We stick to requirements alone. We identify and explain what you have to do. We let the vendors explain how they will accommodate your needs. We try not to place unnecessary limits on the technology solution. There will be new developments in the field that you have not anticipated.

Step 7: Develop a proof of concept

When we have identified the technology that best fits your needs, we develop scenarios that will be used to evaluate capabilities such as authoring, storing and retrieving, content assembly, and possibly publishing.

Deliverables

From our Phase 2 work, we prepare an Information Model (or several interrelated Information Models for your enterprise) that includes the metadata dimensions you will use to label modules in the repository, develop a minimal set of information types that your authors will use to create modules, and define the content units that will make up your information types.

We prepare a guideline for authors for implementing the Information Model. The guideline will include descriptions of the model's components and instructions for their use. Typically, you will need instructions for using the metadata tags correctly, instructions for selecting the appropriate information type for a topic, and instructions for writing in an XML or SGML editor. Writing in an editor usually includes creating links and adding graphics or other media. A well-designed system should include guided editing features that encourage authors to implement the model.

With your Information Model completed and your technology selected, we work with you to define exactly how the output from your content-management system will be delivered to your user communities. In all but the simplest solutions, the help of our expert team will save you time and money.

Content Plans

The most difficult aspect of content planning is the assembly of modular components into compound documents. If the content is assembled appropriately,

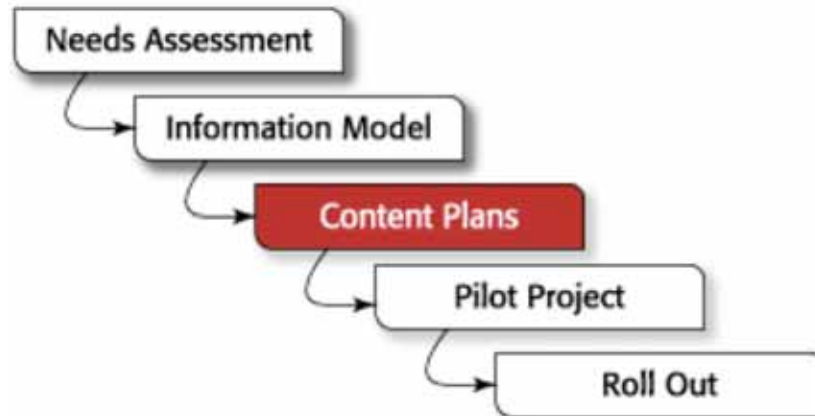
whether for static or dynamic delivery, it can be automatically rendered (through attached style sheets) in any form.

In Phase 3, we link your Information Model to your assembly and delivery method. Because the intent of content management is to improve the user's experience, we ensure that the way in which you organize the output of your content-management solution, especially on the Web, is governed by the Information Model.

Too often, we note problems with Web navigation that are the direct result of a flawed Information Model or a disconnect between the Information Model and its rendering on the Web. A complete Information Model includes not only the design of XML/SGML authoring, but also the assembly and delivery of content. Like the choice of a content-management system, your requirements for assembly, presentation, and delivery will have a significant impact on your Information Model. It is extremely important that your output requirements drive the model.

If your only deliverables are static books, Phase 3 can be quite straightforward, although you may find it frustrating and time-consuming to reach agreement on standard formats for delivery. Content plans for static books are tables of contents enhanced with annotations that explain how the sequence of chapters and sections serves the needs of the users. The same content plan applies whether the book is printed or delivered in PDF or HTML.

If you are authoring in XML or SGML, we will have to create a presentation style for print production. In well-constructed XML or SGML, you do not have information about the typography or the page layout



included in the tags. The presentation style for print is created as an output formatting specification, which defines how the SGML-tagged text will appear in print. Defining print output with a detailed output specification can be difficult and time-consuming, so we plan early for this task.

A content plan, including assembly and presentation, for static Web delivery is more complex than a content plan for a book. Similarly, a content plan or information architecture for dynamic Web delivery is more complex than one for static Web delivery. In both cases, the content plan describes how the Web pages will be structured and how the navigation will work. The structure and navigation are guided by the Information Model.

When we look at Web sites that are guided by the Information Model, we find a firmly established structural and relational logic. Because the Information Model identifies the dimensions of the users' experience, the Web design enables the users to make decisions easily, from the home page, about how to find the information they need.

When we look at Web sites in which the Information Model either does not exist or does not inform the design, we see a site that is awkward and frustrating to navigate. The user is often confused about how to move through the links and has difficulty following links to a successful conclusion.

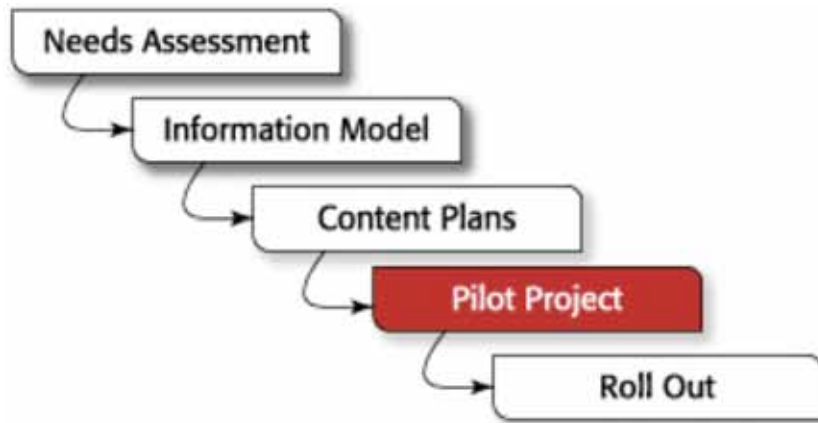
Deliverables

From Phase 3, we prepare content plans for each type of deliverable you intend to produce. Content plans for books can follow a standard table of contents arrangement, or they can be dynamically generated to meet specific user needs and preferences (custom documents), or an instantaneous system of operations needs. Content plans for static or dynamic Web sites are much more complex and should be developed using your Information Model as a base and employing techniques of User-Centered Design (UCD). For more information on UCD, see J. Hackos and J. Redish, [User and Task Analysis for Interface Design](#).

After your Information Model and content plans are complete and your technology is at the early stages of implementation, it is time to begin your first pilot project.

Pilot Project

In a content-management project, we think about planning big and implementing small. It is



important that your system design address the entire problem domain, but initial activities should be kept small. That will allow us to minimize complexity and give users and support staff time to adjust to new ways of doing things. A good pilot can either be narrow and deep, exercising all aspects of structured authoring, or it can be broad and shallow, running a single, simple document though the entire process.

A pilot project provides us with an opportunity to roll out some functionality of the project quickly and get immediate results. We can use the pilot to train staff, work out the details of your Information Model and content plans, and test the technology solution.

A pilot project allows us to ensure that we have adequate processes in place to implement the content-management solution. The pilot project should be selected to test your organization's technology but also to identify process improvement opportunities and enhancements to your Information Model. What we learn from the pilot will help us hone your content-management solution to ensure its success. It's a critical phase that must not be skipped.

The responsibility of the project manager is to establish the project goals, deliverables, and schedule as quickly as possible. It is especially important to include sufficient time for training the staff in the new processes and technologies. Usually, staff members will have to learn to write in a style suitable for modules that will be repurposed, think about creating topics that are suitable for multiple deliverables with multiple contexts, become comfortable with a new authoring tool, and learn to work collaboratively so that output will be consistent, well-structured, and reusable.

We will help you select a project manager who is an excellent communicator and who has a strong, clear vision of what the final result should be. Many groups will be curious about the progress of the pilot project, even if they are not directly involved. Some of those groups or individuals will hope that the project will fail, justifying their objection to changing the way information development has always been done.

During the course of the pilot project, we will help you use your project-management tools to track every activity. We will need this information to calculate cost savings and predict how long it will take to conduct subsequent projects. We will help you maintain comprehensive progress reports that will provide a record of project activities to be used to guide the complete rollout.

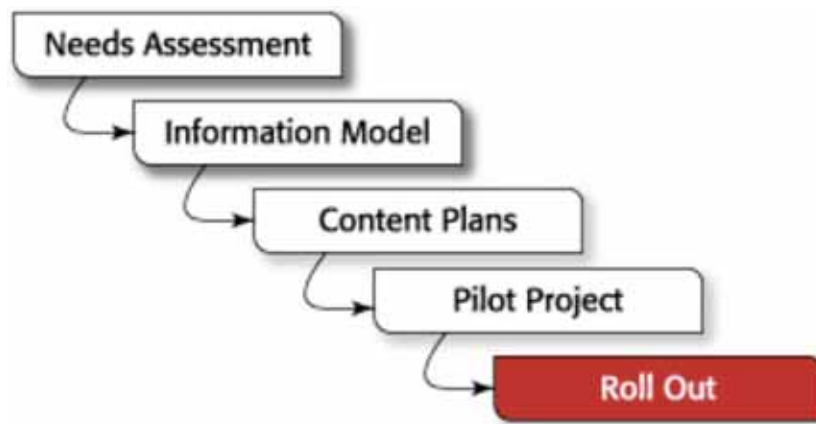
Deliverables

The outcome of Phase 4 includes the pilot project deliverables and the project-management records. In addition, we will provide an updated version of the guidelines for authoring in your content-management solution. A training framework for authors, the support team, and managers should be an outcome of your pilot.

Once the pilot project is completed, we will write a project wrap-up report and hold a wrap-up meeting. At the wrap-up meeting, we will review with all team members and stakeholders what was successful, what challenges were encountered and solved, and what challenges remain.

Roll Out

Planning for a large-scale rollout of a content-management system should begin with



the pilot project itself. Schedules, time estimates, process, and training should all be part of the pilot. We will also have completed our analysis of the risks, successes, and challenges of the pilot project and considered how we intend to improve the process in the next round.

We may decide, for example, to conduct another pilot project or decide on two or three next projects, rather than an enterprise-wide rollout. We strongly recommend conducting a series of phased rollouts so that we don't go beyond the capacity of your project managers and support staff members to assist with the new projects and help ensure their success. Additionally, your Information Model, processes, and outputs will evolve as authors discover what the new approach is capable of delivering.

We consider how the next projects will affect the existing infrastructure of information development in your organization. Will people need to be reassigned? Will current information have to be thoroughly revised if it is to be integrated into a single solution? How will new information be integrated into the growing implementation of content management?

We consider assigning members of the pilot project to serve as project managers for the next phase. If we have selected team members well for the pilot, they should be capable of taking over as project leads with some additional training and support.

We complete the wrap-up report and conduct a wrap-up meeting to assess the success and challenges of the pilot project. Use our assessment to decide if you want a partial or a full rollout to occur. Once the new projects are proposed, we develop a communication plan. As with any change-management effort, communication is key to success. We meet with all teams that will have to adopt content-management solutions

and openly discuss the positives and negatives that we have already discovered. We listen to their concerns and answer questions as fully as possible. Such efforts will help dispel doubts. We are prepared for concerns about stifling creativity and eliminating staff. We are prepared to explain the benefits that will result for customers and for staff members who have an opportunity to work with the latest processes and technologies.

We help you assign project managers to the new projects who have had experience in the pilot project. We provide them with training and assistance to ensure their success. We help you continue to assign as many enthusiastic staff members as you can find to the new projects.

Deliverables

The Phase 5 deliverables are the completed projects. In addition, we will have new metrics as part of the project-management wrap-up reports to use to recalculate the Return on Investment (ROI). Although the pilot project gives us some indication of gains in efficiency and cost reductions, the full projects will be even more significant because we should be overcoming the problems inherent in pilots.

At this point, we are also probably considering technology upgrades and improvements or even moves to newer technologies. Attend conferences and seminars to keep abreast of changes in the field. Consider taking part in a benchmark study with other organizations that are at similar stages of implementation to judge whether your results are in line with others in your industry or those who are pursuing content management in general. The [Center for Information-Development Management](#) regularly performs benchmark studies of content-development organizations.

Remember that no content-management solution is ever complete. As user characteristics, business needs, and authoring and delivery technologies change, you will have to update your Information Model as well as your processes. Mergers and acquisitions of existing businesses mean that you will continue to work on integrating additional departments into the process. We can continue to work together on your organization's content-management solution.