

New Millennium Publishing

Editorial and Content Solutions

e-Publishing Systems: Build or Buy?

Productivity and Usability Issues in the e-Publishing Process

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Introduction: To Build or Buy?

Every company's second line of business is publishing – if you consider that all businesses produce sales and marketing collateral. For many companies, the objective is to publish technical documentation of their products, including repair and maintenance manuals, user guides, data sheets, and other product support documentation. Some companies undertake reference publishing, producing collections of financial, medical, scientific, legal, or other professional data- and text-bases. And then there are the multitude of businesses that need to provide publications, such as price and part listings and catalogs, while still other companies face the challenge of publishing their corporate policies and procedures. And, of course, there are companies that need to do all of the above.

The move to the electronic distribution of publications places high constraints on the individuals tasked with the production of technical documentation. Publishing departments have scrambled to put documentation on CD-ROM and, with the advent of the Web, are struggling to translate content into HTML. Often, these departments find themselves working with an “ad hoc” collection of tools to realize their goals. As a result, many e-publishing departments within today's enterprises have created proprietary, or “homegrown,” e-publishing systems.

Far too often, electronic publishers haven't taken the time to consider the tools they use to assemble their publications and disseminate them via the Web or intranet. This white paper focuses on the primary issues surrounding the effectiveness of the publishing process and consequently, the usability of the publications in the hands of the end-users. This in-depth study can help electronic publishers evaluate their current publishing tools, enabling them to make strategic decisions regarding how to create a more efficient and productive publishing process.

The Long and Short of It: Different Tools for Different Size Documents

The term “e-publishing” covers a lot of ground. For example, the challenges for publication departments charged with meeting the demand for new marketing materials, such as product description sheets, aren’t very similar to the requirements placed upon an airline manufacturer’s technical documentation group, which is tasked with producing multi-volume maintenance and operations manuals for every make and model.

In fact, publishing can be broken out into two groups — short document publishing and long document publishing.

Short Documents, Multiple Tools

Almost every business needs to produce some type of “short” documentation, that is, documents or document collections under 250 pages. Common examples include two-page data sheets, color catalogs, and marketing brochures targeted to specific events. Since these kinds of documents typically lack structural complexity and by the nature of their page-count are inherently navigable, there are many production tools that can be used to create functional electronic versions of them. It is important to note, however, that there are several key characteristics, beyond overall length, that differentiate short documents from longer documents:

- Information is often ephemeral, not part of the essential knowledge of the enterprise
- Emphasis is on getting this kind of document out quickly
- Focus is on graphic design and layout
- Image-rich content often predominates

Translating short print documents to electronic media can be as simple as a “Save As...” selection, such as converting a Word document to HTML for posting on your company’s Web site. Another easy and effective means is Adobe Acrobat, where everything from word processing documents to page layout and graphic design program output can be saved in Portable Document Format (PDF), a displayable electronic file version of any page printout.

Companies no longer need to work from a print-oriented process. Today, there are tools such as Microsoft’s FrontPage—and dozens of other software programs—that can effectively create graphically attractive Web pages.

Choosing an e-publishing tool for short documents, regardless of production volume, involves entirely different considerations than those used to choose a solution for publishing longer documents. Short document publishing systems should focus upon the following:

- Ability to manipulate graphics and images
- Sophisticated page layout
- Strong pre-press options and capabilities

Publications that contain many images may benefit from a digital assets management system for production, but will probably gain little from offering sophisticated Boolean search and retrieval options for the end-user. Typically, re-use of the content is not a high priority for the short document, nor is a highly structured and complex authoring process.

Publishing Long Documents Electronically: Challenges and Caveats

Unlike short documents, which are usually not meant for long-term use, larger document collections involve considerable time and resource investments for the companies that publish them to ensure their usability well into the future.

A wide variety of industries—from banking, chemicals, computer hardware and software, to insurance, medical, manufacturing, and utilities—create extensive internal and customer publications as part of their business process. These publications might include technical documentation, often in the form of operations, maintenance, and reference manuals that describe intricate products or processes. Long document collections might be comprised of regularly revised and expanding policies and procedures documentation, related, in many cases, to complex regulatory compliance information. In most instances, they are extensive collections of high-value information that represents business-critical resources to their users.

Obstacles in Long Document e-Publishing

What are the issues facing busy in-house publication groups that are responsible for producing large document collections? Here's a top-level look:

- Reducing costs and increasing the efficiency of the publishing process
- Publishing using multiple media, including CD-ROM, the Web, intranets, and online help
- Incorporating multiple data types, such as complex text, tables, graphics, and multimedia, including working with legacy systems
- Frequent revisions, including updating, localization, and internationalization, to keep publications current

- Improving the creation cycle for publications, including meeting faster “time-to-market” demands
- Expanding the usefulness of publications, including effective user interfaces, indexing, and search and retrieval functionality

A recent survey of some 500 corporate publishers working in Fortune 2000 companies revealed that the single biggest concern—at 30% among those interviewed—was productivity, with timeliness of the content second (19%), and quality of production third (16%). The time required for creating complex publications raises serious budget consequences, but the quality of content and its delivery remain extremely important, as well.

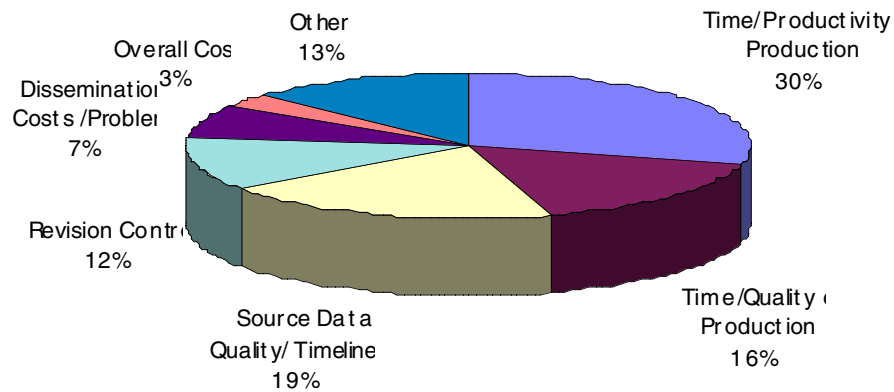


FIG. 1. THE MAJOR CONCERNS OF CORPORATE PUBLISHING DEPARTMENTS

Benefits of Long Document e-Publishing

e-Publishing brings very specific benefits to corporate publishers charged with producing and maintaining large document collections. In the same survey of Fortune 2000 corporate publishers cited earlier, the questions about the benefits of e-publishing revealed some surprising answers.

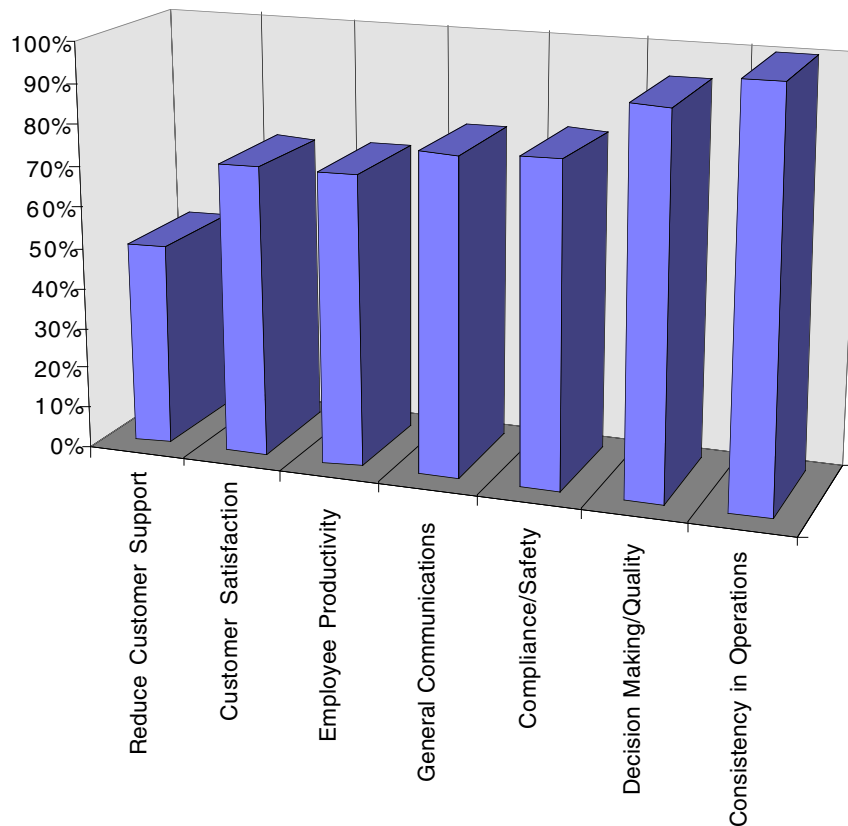


FIG. 2. THE BENEFITS DERIVED FROM E-PUBLISHING

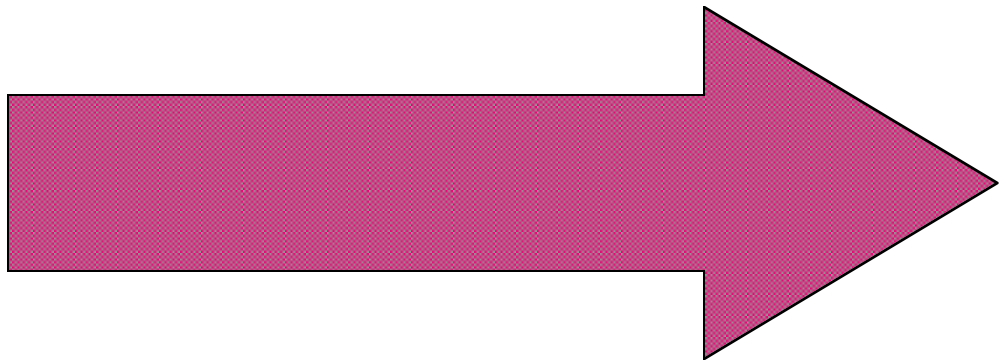
“Consistency in operations” was viewed by everyone surveyed as a tremendous advantage, with “decision making/quality” a close second (93%), and “compliance/safety” and “general communications” following (79% and 78%, respectively). The clear message: there is significant value to be found with e-publishing in making accurate, consistent information available widely across the enterprise and among the customer base.

Other benefits of e-publishing included increasing employee productivity and customer satisfaction, and reducing customer support budgets. While these commonly cited benefits are important, it is interesting to note that the value of high-quality enterprise information effectively delivered represents the biggest advantage of e-publishing.

Transitioning to Long Document e-Publishing

Given that e-publishing is viewed as an effective way to increase productivity while lowering costs, it is not surprising that companies face significant pressures to move in this direction.

But if large document collections are challenging in print—with high-end, complex pagination systems and cumbersome update strategies pressed into service (such as loose-leaf, change pages, etc.)—e-publishing of large document collections also has demanding requirements.



**Publish in print,
CD, Web, LAN** **Incorporate many
types of data** **Speed creation
cycle** **Make frequent
revisions** **Reduce costs,
increase efficiency** **Build effective
interfaces**

FIG. 3. E-PUBLISHING DEPARTMENTS FACE AN INCREASING NUMBER OF DEMANDS

Three basic strategies are available to companies moving to e-publishing:

- **Low-end**, or “manual” approach, which focuses on translating print publications to a particular electronic form
- **High-end I**, or “packaged application” approach, which uses a complete, off-the-shelf e-publishing solution
- **High-end II**, or “development” approach, which creates a custom in-house system of the entire process from authoring-to-media output

One of the central challenges for companies publishing large document collections electronically is determining which approach is most practical from the perspective of both the production department and the end-user. A vital component of implementing a successful e-publishing solution is choosing the right tools.

Choosing the Right Tools for e-Publishing?

As the delivery media for long document sets has expanded beyond print, many technical publication departments have put together a collection of in-house publishing tools. Often these collections are created tool by tool to address the latest requirement, such as publishing to CD-ROM, or adding intranet support to documents that were formerly print-only. With the Web becoming a major publishing platform, e-publishing departments now also need to master the preparation and presentation of HTML-formatted content.

You may be using different tools to address different parts of the publication process, but getting these tools to work together is oftentimes a manual and awkward process. The low-end approach suffers from its “print” orientation, whereas the move to e-publishing requires the seamless combination of multiple source documents into a functional and navigable electronic publication.

“A few years ago, a mandate came down from the highest levels of management that we should ship mostly online documentation,” says one publications manager of a leading database software and systems provider. “My group produces printed documents with FrameMaker + SGML, and creates PDF using FrameMaker’s built-in capabilities with Acrobat. We use Quadralay’s WebWorks to produce HTML from these books.”

By using a collection of print-oriented e-publishing tools, “low-end” e-publishing can be quickly implemented. However, many limitations are faced, including the following:

- Different media output efforts require their own integration of source documents
- Automating processes such as link creation are largely lost from one medium to another
- Many tools are required to enhance the end-user utility of electronic versions

Developing an in-house, proprietary system, one of the approaches for high-end e-publishing, exacts a price for many electronic publishers, as well. Some of the most significant problems include:

- High development and maintenance costs
- Limited flexibility for incorporating new technologies
- Restricted integration capabilities
- Operating system compatibility issues
- Challenges in delivering customer requirements

A telecom network company that has spent years developing a highly functional internal e-publishing system faces a new challenge in the acquisition of another major company: the e-publishing department of the telecom network company has to incorporate the extensive e-publishing efforts of the newly purchased enterprise. Although its in-house e-publishing system had worked well in addressing its own publishing needs, the telecom now faces staggering data conversion costs to integrate into their own system the newly acquired company’s documents.

Asking the Right Questions

The question to consider isn't whether your publication department can create electronic documents using "ad hoc" tools or custom systems. The questions should address how well your solution helps you to achieve your goals. Ask yourself the following:

- How do your e-publishing tools impact the cost issues surrounding the publishing process?
- Do your e-publishing tools increase efficiency from the end-user's perspective?

Productivity and e-Publishing

Consider the complexities of the documents your department produces, with their demanding structure, mix of data types, diverse source files, and multiple media output. Then increase the frequency of revisions, updates, and editions, and add customization, access control and security. In addition to all of this, consider what your publication department needs to do to meet the user's requirements for finding the right information quickly and easily.

In this kind of situation, you will inevitably encounter difficulties if you are using a "grab-bag" of publication tools. The problem can be twofold: either the tools you've assembled aren't doing enough to help you reduce your publishing and support costs or those tools aren't significantly helping you to boost your output.

Going Electronic? PDF to the Rescue...Sort of

As more and more documents move to the Web and intranet, the LAN/WAN, and/or to CD-ROM and DVD, Adobe Acrobat's Portable Document Format (PDF) has become a *de facto* standard for electronic document distribution. PDF is popular for some very good reasons, including:

- Adobe Acrobat 4.0 software can convert any document to PDF
- PDF generally preserves all of the fonts, formatting, colors, and graphics of any source document
- PDF accepts virtually all document creation application and platforms
- PDF files are compact
- PDF files can be shared, viewed, navigated, and printed exactly as intended by anyone with a free Adobe Acrobat Reader

For any technical document publisher who has wrestled, for example, with complex tables in print and on screen, electronic page fidelity is welcome functionality.

Many publication departments still rely on word processors such as MS Word, while others use word processors in combination with page composition software like FrameMaker, Interleaf, Quark, and PageMaker. These tools are designed to deliver excellent results—on paper, that is. But for electronic distribution of these same documents, many publication groups turn to Acrobat and PDF.

Unfortunately, for the groups publishing more complex document collections while trying to meet growing production demands, using PDF proves to be less effective than it might first appear. PDF’s ubiquity, ease of use, and low cost are offset by its print-centric origins, which can negatively impact e-publishing in the following ways:

- PDF’s page-oriented layouts don’t translate well to screen, as the density and size of the pages may be overwhelming
- PDF and Acrobat Reader have limited search and retrieval capabilities
- PDF file format is inflexible in terms of revision, updating, and re-use

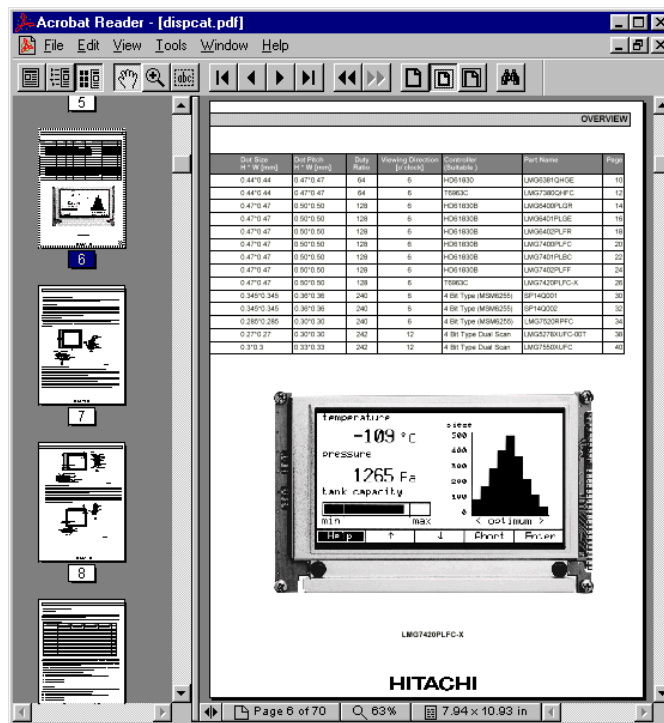


FIG. 4: ACRABAT READER’S PDF OFFERS EXCELLENT PAGE FIDELITY, A PLUS FOR DOCUMENTS CONTAINING COMPLEX TABLES AND GRAPHICS

For publishers who are tasked with bringing thousand-page technical publications, extensive catalogs of services, products, and policies, or extensive reference manuals to electronic form, PDF may offer an early step toward e-publishing. But this low-end approach simply doesn’t supply enough of the benefits of e-publishing for long-term implementation.

In an effort to compensate for PDF's shortcomings, many publication departments find themselves doing custom programming to add necessary functionality.

PDF is Easy...Until You Factor In Custom Programming

Relying on Acrobat's searching functions not only exacts a price in user efficiency, but also negatively impacts overall costs, as well. For example, creating a graphical user interface (GUI) with a PDF output requires a prohibitive amount of custom programming. Creating a GUI that enables effective navigation by manually incorporating a table of contents and a full-text index that spans all the documents in the collection requires both custom programming when the publication is created, and then each time it is updated thereafter. And that doesn't even touch on the problem of incorporating a more functional search engine.

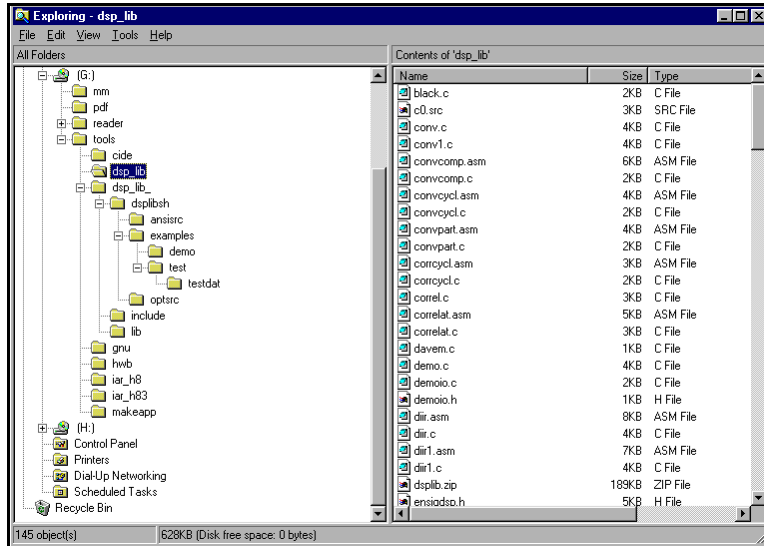


FIG. 5: THE FOLDER AND FILE SNAPSHOT OF AN ADOBE PDF-BASED CD-ROM TITLE THAT ADDRESSES PDF'S INHERENT WEAKNESSES IN USER INTERFACE AND SEARCH AND RETRIEVAL REVEALS ALL THE C PROGRAMMING AND LIBRARIES REQUIRED TO IMPROVE FUNCTIONALITY.

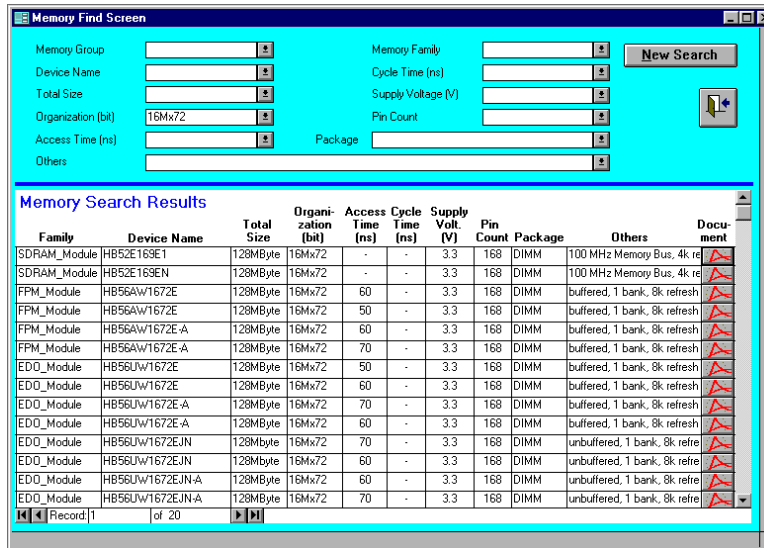


FIG 6: THE BUILD-IT-YOURSELF APPROACH TO SEARCH AND RETRIEVAL SHOWN IN FIGURE 5 WORKS, BUT HAS LIMITED FUNCTIONALITY, CONSIDERING THAT THE CAPABILITIES GAINED ARE NOT MUCH MORE THAN A SIMPLE LOOK-UP TABLE TO LOCATE DOCUMENTS. THIS APPROACH EXACTS HIGH DEVELOPMENT AND MAINTENANCE COSTS, WITH VERY RESTRICTED RESULTS.

PDF: Few Links to Better Productivity

Many “ad hoc” solutions do undoubtedly improve the lot of the publisher, but few things grow faster than the information in a company’s knowledge base. And few things in electronic publications grow faster and provide real usefulness than hyperlinks.

An international engineering company that produces hundreds of thousands of data sheets and reports each year uses a word processing solution and a high-end pagination and layout system to produce print versions. This company currently uses PDF to get some of the documents on the Web and CD-ROM, but they find the process to be problematic. For example, going to PDF from their print-oriented system “adds no value to the electronic publications,” notes an internal e-publishing consultant. “We have a lot of explicit links among a giant set of documents,” she continues, “and not being able to apply semantic intelligence to the electronic documents makes it hard to perform quality assurance on links and support re-use of the documents.”

This company is building most of its electronic links by hand, an operation that is overwhelming with 1500 CDs being published three times per year. Separate output preparation between CDs and HTML formats for the Web is also a big production hurdle. “We’d really like to see better use of PDF, especially in terms of capturing the meta-data of the documents,” says the document architect at this engineering company. With their current publication process, important links that exist in the print documentation as cross-references often cannot be translated automatically.

Create Once, Publish Many Times... Or Hire More Staff

One of the productivity issues with either the low-end e-publishing approach or the in-house development approach relates to staffing. With either method, staffing requirements can be overwhelming, because both approaches fail to capture many of the efficiencies that a comprehensive e-publishing solution can offer. Neither approach provides the following capabilities:

- Automatic electronic publication build, update, and distribution process through “wizards”
- Flexibility in the use and re-use of the source documents
- Automation of media deployment and installation options, for effective delivery and updating of the electronic documents

The e-Publishing “Build” Process

Whatever the document source and condition, the build process for effective e-publishing should be straightforward. Top-level steps in the electronic publication build process include the following:

1. Selecting source documents
2. Choosing search fields
3. Unifying disparate documents into one publication
4. Targeting output media (CD, Internet/intranet, and/or LAN)
5. Preparing and packaging for media
6. Creating end-user set-up (for individuals, Web server interface, and/or network users)
7. Periodically supplying users with updates without republishing

If your tool collections are simple, such as print-to-PDF, you face easy production, but will build very limited functionality into your electronic publications. Unless, of course, you allocate significantly more resources to support all of the manual work that is still required, including the creation and updating of the hyperlinks and the incorporation of effective search and retrieval capabilities.

If you’re using custom programming as part of your electronic publication process, such as with an in-house development approach, you will continue to spend considerable time and money to add the newest functional requirements. And the hiring of capable programmers is neither inexpensive nor easy to do. Choosing this avenue also adds a complex new stress to the publishing process by placing the in-house publisher squarely in the software development and maintenance businesses.

Dealing with Diverse Source Documents

Both the low-end production tools approach and the high-end custom development strategy can raise significant staffing issues. If your electronic production system can handle only a small number of document sources or is unable to integrate different types of data into a unified publication, you face one or both of the following results:

- Limited functionality
- Costly data translation

For example, video is increasingly being incorporated into electronic documents, but without an integrated publishing solution, you may need to work with a multimedia software development kit.

Highly structured documents, such as those created using through structured authoring languages like SGML and XML, can add significant value to electronic documents, far beyond the limited benefits derived from applying consistent style libraries of word processors and page-layout applications. Unfortunately, the reality is that few enterprises can afford to make the investment to convert all source documents to highly structured formats.

Even companies that do implement structured authoring standards may encounter difficulties. Although their in-house publishing system may handle SGML or XML data flawlessly, it might not be able to accommodate other data sources, including legacy data. As a consequence, the company will have to employ other tools to handle these less-structured source documents, or time and effort must be spent to manually add structure to the documents.

Good Deployment Capabilities Solve Problems

The e-publishing manager of a power plant manufacturer is looking to SGML to add more intelligence to the documents. He reports that they are in the midst of a long-term transition from paper to electronic documents. Unfortunately, he says, publishing to different media and revision updating are still manual processes, requiring a lot of his staff's time and attention. One particular set of documents—operations manuals—go through four major revisions per year. But with no integrated update mechanism within the publishing process, revisions still rely primarily on substituting a new edition for the old one.

e-Publishing Process					Media
Page Layout	Index/TOC Generation	Post Script Output	Pre-press		Print
Page Layout	Acrobat PDF Converter	UI/retrieval	CD-ROM Authoring	CD-ROM Formatter	CD-ROM
Redo Source	Document Import	CD-ROM authoring s	CD-ROM Formatter		CD-ROM
Page Layout	HTML Converter	HTML Formatter	Web Content Management		Web/Internet
Redo Source	Document Import	Web Authoring	Web Content Management		Web/Internet
Page Layout	Online Help Converter	Online Formatter	Help Content Management		Online Help

FIG. 7: WITHOUT AN INTEGRATED E-PUBLISHING SYSTEM, PUBLISHING TO DIFFERENT OUTPUT MEDIA CAN MEAN DEVELOPING DIFFERENT PUBLISHING PROCESSES

This can lead to significant problems on the receiving end. In order to reduce the number of new editions of operation manuals, the e-publishing manager provides the customers with a number of partial updates. “The incorporation of minor changes are problematic for the customer, since all we can do is send new files that are then substituted for old ones,” he notes. Their own in-house system has no automatic management of the folder/file hierarchies. As a result, he explains, “We get a lot of late night support calls.” For companies that publish many CD-ROM and DVD-ROM titles per year, the same problem with a manual deployment process occurs, but is multiplied many fold. With more CD-ROM in its publishing schedule or frequent updates, a company could very quickly realize the advantages of built-in output handling for CD and Web within the right e-publishing application.

Key Issues in Productivity

Here are some of the specific questions you should ask yourself to determine whether or not your e-publishing tools work well together:

- Can I take page-layout document files and automate PDF generation with fielded search fields and full text?
- Can I automate the build process by taking content from a number of locations, including a document management system (DMS)?
- Can I perform scheduled (lights-out) indexing and TOC generation of the content?
- Can I create a customizable user interface without a lot of customized programming?
- Can I generate a complete, bullet-proof, deliverable intranet or CD publication, including user interface, CD end-user installation, Web server CGI (that connects to any http server), and installation on the Web server?
- Can I distribute updates that are seamlessly integrated into the already delivered publication?

The End-user Perspective: Searching for Good Use

e-Publishing productivity issues affect end users of the publications, as well as the e-publishing group. In addition to reducing print costs, expanding distribution options, improving time-to-market publishing schedules, and increasing output capability without increasing staff, effective e-publishing should provide the end-user with a highly functional product.

Good Search and Retrieval is Good Use

“Unfortunately, Acrobat’s PDF suffers in two important ways: search and security,” says the document architect at the engineering company cited earlier. “Searching capabilities within PDF are clumsy, and the query reports are weak.” Simply put, this makes it difficult for the user to find the right information within the electronic documents.

“What our field engineers need,” says the engineering company’s in-house e-publishing consultant, “is keyword and category searching, along with the other basic features like thesaurus and “sounds-like” capabilities.”

Full-text retrieval	Topic-specific/ Structure-specific search fields	Table of Contents navigation	Hyperlinking
Cross-documents indices	Drop-down term lists	Hierarchical tables of content	Hyperlinks within documents
Boolean searching	Numeric fields	Expandable tables of content	Hyperlinks among documents in collection
Proximity	Date fields		Hyperlinks between static collection of documents to updating content
Stoplist	Full-text fields		
Soundex	Parts-of-document fields		
Wildcards	SGML/XML tag searching		
Thesaurus			

FIG. 8. DESIRABLE SEARCH AND NAVIGATION FEATURES FOR E-PUBLICATIONS

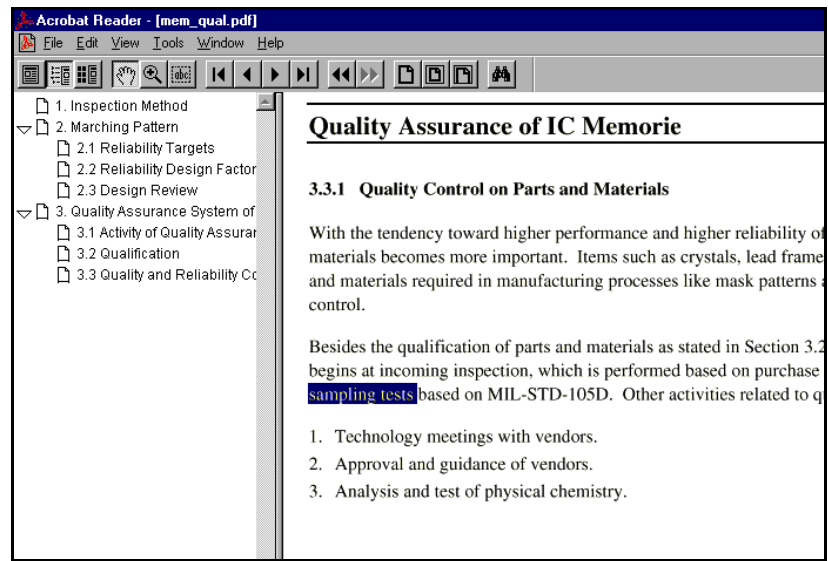
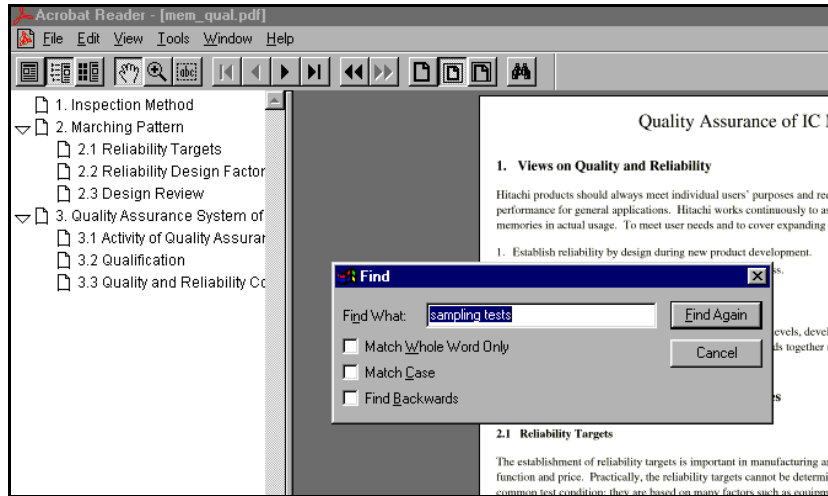


FIG. 9. ACRABAT'S SEARCH FUNCTIONALITY IS EXTREMELY LIMITED, WHICH MAKES IT A POOR CHOICE FOR COMPLEX DOCUMENTS. THE TOP SCREEN SHOWS THE PLAIN FULL-TEXT OPTIONS, WHILE THE BOTTOM SCREEN REVEALS THAT NO CONTEXT IS GIVEN FOR EVEN THESE SIMPLE TYPES OF TEXT SEARCHES.

Building Usefulness into Electronic Documents

Electronic publications should be navigable, interactive, and personalized, and a number of conventions have sprung up that help the user be more effective. Among them are annotations or “sticky notes” that let the user add more value to the electronic document by incorporating individual notes. Annotations allow a user to keep knowledge that is particular to his or her practice or use of the content in an easily accessed, collaborative way.

“Bookmarks allow a user to note preferences for and use particular documents within an electronic publication collection. Entire searches or query screens can also be bookmarked so that the user does not need to re-enter the search criteria.

Today, bookmarks or favorites have become ubiquitous in our use of Web browsers. With the emergence of the Web browser as a common viewer environment, there's less room for specialized, proprietary viewers, unless these viewers can offer the user valuable and unique functionality.

One industry consultant who has worked for both large commercial electronic publishers and the leading document industry vendors comments, "Acrobat is starting to feel the heat from Web browsers, since PDF doesn't have a particularly strong search or UI capability, especially as a Web-based application. One good strategy for tech doc groups is to gain the benefits from using a powerful publishing system for good searching, but have the ability in that system to create HTML on the fly for delivery to intranet and the Web."

Annotations	Bookmarks	History lists	Custom views	Custom designs
Private "sticky notes"	Searches	Search results	Resize windows	Search forms
Shared "sticky notes"	Documents	Recently browsed documents	Highlighting/minimizing search form	Splash screens
			Multiple Table of Contents views	"About" screens
			Toolbox flexibility	Main screens
			Zoom capabilities	Home pages
				Menus, toolbars, buttons, icons
				Headers and footers

FIG. 10. PRODUCTIVITY FROM THE END-USER'S PERSPECTIVE IMPROVES WHEN THE USER CAN CUSTOMIZE THE USER INTERFACE. THIS IS ALSO IMPORTANT FOR PUBLISHERS WHO SEEK TO IMPROVE THE LOOK, FUNCTION, AND OVERALL IDENTITY OF THEIR ELECTRONIC PUBLICATIONS.

The Right Look and Actions for Electronic Publications

Acrobat's PDF, especially in combination with such page authoring and layout programs as FrameMaker, would seem to make the transition from print to electronic easy, and PDF does provide some benefits in this regard. But relying on PDF as a publishing tool in and of itself can result in poor information access and place serious limitations on the end-user experience.

PDF offers little for publishers seeking to create a more useful and effective interface for the user, whether in terms of corporate identity, special toolbars and buttons, or the many design strategies that have evolved to make accessing information electronically more effective. There are also the issues of access control, which can be very important both from a security perspective and from a business model angle, where time limits to the information might be set, or concurrent usage rules applied, for example.

The Bottom Line: The Complete e-Publishing Solution Beats In-house

Even if your in-house solution meets all of your requirements, you still may face higher costs than necessary if you are forced to repeat all or some of the publication production process for each output media. And if the electronic documents you publish don't work well for the end-user, then there are competitive costs being exacted, as well. A poor user interface, mediocre search and retrieval, timeliness problems in terms of updates, or limitations in getting the documents into the users hands can seriously and negatively impact your business.

A Question of Cost

Obviously, there is a cost associated with adopting a packaged e-publishing solution, both from the purchase price and in the time required to implement the system. But cost considerations should also include the following value points:

- E-Publishing departments are more productive in creating their publications
- E-Publishing departments can re-use publications when deploying across different media
- Electronic publications can help their end-users be more productive

For the Publisher, the Complete Solution is the Best Productivity Value

Increasingly, in-house publishers face a need to produce materials as quickly as possible. Why? Simply because their customers expect it. Each day a product support or maintenance manual isn't available has a negative impact on customer satisfaction and, consequently, on sales. Clumsy or inefficient publishing systems can have a very real, very negative impact on a company's bottom line. Conversely, easy, flexible publishing applications can increase output and decrease staffing needs, both budget line pluses.

Still, for many in-house publishers, creating the publication can be a relatively efficient part of the process, even with odds-and-ends tools. However, delivering changes to the field becomes an enormous challenge, and organizations often revert to archaic strategies such as reshipping the entire document or delivering "change pages" along with small documents that summarize the changes. Fortunately, a number of commercial solutions now deal with both challenges, providing simple "wizard" functionality for automatically compiling and delivering the changes.

For the Publisher, the Complete Solution is the Best Deployment Value

In-house publishers have become, by necessity, experts in distributing PDF, HTML, Help, and other files formats, and often know more than they ever wanted to about browser support, operating systems, and client networking. One manager at a leading software company maintains documentation and help in formats ranging from SGML to WinHelp, and supports platforms ranging from Windows 3.1 to the latest releases of Java. Manufacturing and distributing this company's documentation is an enormous tactical problem.

Add to this the need to make CD-ROMs and downloadable versions of all documents, as well as the need to support the customers as they distribute the documentation throughout their corporate intranets and extranets.

The right e-publishing application can vastly simplify this problem by allowing the electronic publisher to deliver publications with a click of the mouse. This process can be run as late in the editorial and production cycle as necessary, and used repeatedly, so that late-breaking changes can be captured and delivered to the market as necessary. Here's what the process looks like:

1. Choose a platform: CD, Internet/intranet, LAN
2. Automatic packing compresses the publication into one folder for writing to CD or uploading to Internet or intranet
3. Automatic end-user set-up included, making the publication ready to install
4. Publication can be installed on any Web server with the application's built-in Web server interface

For the End-User, the Complete Publishing Solution is the Best Value

Perhaps more than anything else, the in-house publisher's challenge is to keep up with the rapidly changing requirements of his or her customer base. And this is a customer base that increasingly expects the improved interfaces and functionality of the Web and other media. Minimally, publishers must provide:

- High quality, precise searching that anticipates the needs of the user. Merely moving from "hit-to-hit" or even listing hits is not adequate. Users want to save commonly used searches, see hits in context, and operate powerful search options.
- Intelligent PDF integration, where PDF adds value only if the end user has enough information about the structure of the document to effectively use the search capabilities.
- Integrated viewer environments, where end users can search the publications using Web browsers. Look for applications that can create HTML files dynamically, and transfer them immediately to the user for viewing.

- Annotations and bookmarks, including, for network users, the sharing of annotations, which can leverage corporate knowledge and increase productivity.

The Right e-Publishing Solution: A Checklist

When you develop your own systems and toolkits for publishing, the question isn't whether you can get the work done, but how productive you will be. Here are some key questions to consider when assessing our current e-publishing process:

- Have you outgrown dependent on "ad hoc," repetitive, and resource-intensive processes for production?
- Are you maintaining proprietary methods for manufacturing and distributing our content? Do you have staff dedicated to these processes and are they also spending time supporting customers? Are you maintaining customer versions or "one-offs" for customers with unique requirements?
- Are our users satisfied with the behavior of their electronic documents? Do they request functionality from your applications that they have elsewhere, such as certain types of searching or persistent annotations?

If you find yourself answering yes to some of these questions, you may have outgrown your current e-publishing solution. More significantly, you may not be anticipating changes in the content creation and delivery market.

Today, there is no longer a need for electronic publishers to piece tools together to satisfy part of the publishing process, and e-publishing solutions developed in-house still present challenges and risks for the company that develops and maintains it. Today, more and more companies are moving away from problematic in-house publishing systems and are implementing best-in-class e-publishing solutions.

Use this simple checklist to start your investigation of the right complete e-publishing applications for you.

- The application has the ability to integrate document-length materials together with any other data types
- The application has flexible publishing capabilities to CD-ROM, Internet and intranet
- The application provides user-focused capabilities such as integrated search, powerful hyperlinking, automated table of contents, and sticky-note annotations
- The application has automated support for providing updates to existing document databases
- The application has automated support for distribution and installation

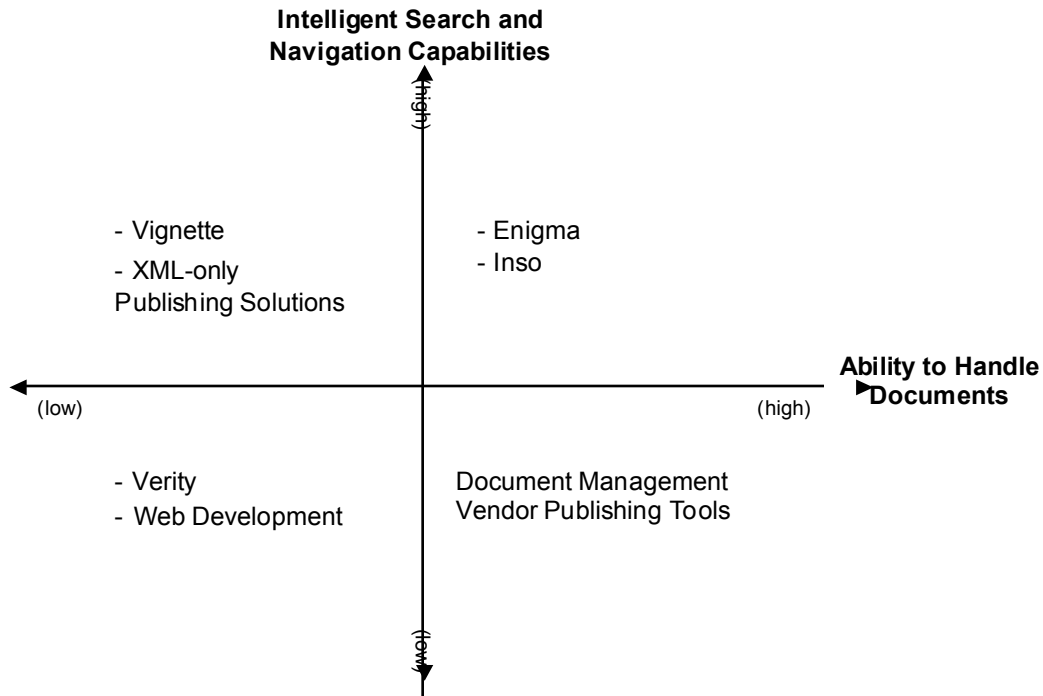


FIG. 11. THIS MATRIX LAYS OUT THE RANGE OF E-PUBLISHING TOOLS WITH THEIR RELATIVE STRENGTHS AND WEAKNESSES. INTEGRATED PUBLISHING SOLUTIONS PROVIDE THE BEST BALANCE OF PRODUCTIVITY, EFFICIENCY, AND END-USER BENEFITS.

Some popular choices, such as WinHelp and HTML, offer limited capabilities when it comes to handling a variety of data types. Win Help itself remains a proprietary format, requiring specialized authoring and production tools, while HTML, despite being an open format, doesn't flexibly support a variety of data types. PDF's strengths are clear, but as a stand-alone tool used as only part of the e-publishing system, these strengths are offset by PDF's significant weaknesses.

On the other hand, Web-oriented tools such as Vignette's StoryServer are powerful and flexible publishing solutions, but offer little capability to work with large document collections. With this approach, all content is typically divided into relational database tables, and while it is quite suitable for article-length material, it remains unwieldy for lengthier documents.

e-Publishing solutions such as Enigma's INSIGHT and Inso's DynaText offer the long document publisher more complete solutions. These applications focus on end-to-end integration for key productivity and end-user requirements for efficient e-publishing. They provide publishers with the ability to flexibly publish materials to a variety of media and platforms, including CD-ROM, intranet, and internet, delivering high value to the end user.

Few things are as fast-paced as the application of digital information within today's businesses. Fortunately, some e-publishing applications are now keeping pace.

About the Authors

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