*Aberdeen**Group*

The Next-Generation
Product Documentation Report

Getting Past the "Throw It over the Wall" Approach

December 2006

Executive Summary

C ausing a missed product launch because of incomplete product documentation is the nightmare of every documentation manager. But the harsh reality is that documentation departments are expected to do more work in much less time as cycles become compressed. Some documentation departments, however, are not only meeting their product launch and publication dates, but are using documentation to increase customer satisfaction. How are they doing it? It's actually quite simple.

Key Business Value Findings

- Best in class performers hit documentation targets on a 92% or better average.
- Laggard performers hit translation cost targets only 23% of the time.
- Best in class performers experience half the translation gap experienced by laggards.
- Best in class performers execute two-thirds fewer post product launch changes than laggards.

Implications & Analysis

- Best in class performers integrate documentation into engineering from a process (74% more likely) and organizational perspective (69% more likely).
- For text-based documentation, best in class companies are 46% more likely to author structured documentation, 72% more likely to use design-based illustration tools, 45% more likely to manage documentation in content management systems, and 51% more likely to employ translation memory technology. .
- For graphical communications, best in class companies are twice as likely to utilize embedded 3D graphics and Web-based 3D visualization.
- Best in class companies are seven times as likely to track reuse as a measure of readability.

Recommendations for Action

- Kickoff the documentation process at the same time as design process kickoff.
- Organizationally integrate the documentation department into engineering.
- Distribute structured document and content management tools to the technical writers.
- Provide 3D visualization and design-based illustration tools to the technical illustrators.
- Deploy translation memory technology to localize product documentation.
- Utilize 3D publishing technology to increase graphical communication.
- Track content reuse in order to check documentation readability.

Send to a Friend

Table of Contents

Figures

Tables

Chapter One:
Issue at Hand

The importance of product documentation is changing. In the past, manufacturers viewed documentation authoring as something that happened at the tail end of development. With more complicated products, however, manufacturers are starting to realize that satisfying customers is closely aligned with telling them how to use the product. Furthermore, for many manufacturers, the expansion into global markets means that these documents must be localized into upwards of 30 different languages and dialects. Yet some companies are overcoming these problems not only to meet minimal requirements but to turn the result into a business advantage.

Addressing Customers' and Executives' Demands with Less

Because of current business pressures, these organizations are getting a clear message from their executives: satisfy customers under tighter development constraints. On the bright side, these organizations seem to be pursuing two-pronged strategies to address both these needs and constraints (Table 1).

Table 1: Top-Five Business Pressures and Strategic Actions for Documentation

Business Pressures		Strategic Actions	
Increased demand for concise and customized documentation	55%	Reuse textual content for documentation	67%
Shortened documentation lifecycle constraints	49%	Publish in multiple delivery formats (paper, electronic, and Web)	53%
Growing complexity of products	48%	Reuse design content for documentation	29%
Reduced documentation budgets and resources	44%	Reuse existing translated content	23%
Increased focus on customer satisfaction	36%	Customize documentation for customer segments	23%

Source: Aberdeen Group, December 2006

The Message from Customers: Get to the Point Quickly and Concisely

As the complexity of products continually increases, customers are placing the burden to explain how to use, maintain, and service products at the feet of manufacturers. Increasingly though, the way in which that information is communicated is becoming paramount. According to Aberdeen benchmarks, the top business pressure, in fact, is customers' *demand for concise and customized documentation* (54%).

Based on the strategies documentation departments are deploying, they're listening well. They're addressing these demands by *developing customized documentation according to customer segments (23%)* as well as *publishing in multiple formats (53%)*. This means they're creating documentation for varying levels of customer technical expertise and delivering it in a variety of forms the customer can use.

The Message from Executives: Do More with Fewer Resources

Customers are voicing their concerns, and executives are responding with *increased focus on customer satisfaction* (36%). While that issue is being addressed, executives have another one in the queue: things are getting tight. Departments are facing project plans with little or no give because of constraints such as the *shortened documentation lifecycle (49%)*, *growing complexity of products (48%),* and *reduced documentation budgets and resources (44%)*.

> **High Technology Company**
>
> "We have less time to focus on quality because we have to concentrate on the content and other important deadlines. As timelines for documentation development have compressed, we are not able to dedicate enough time for all the functions."

How are documentation departments reacting to these constraints? Most notably, they are pursing strategies for *reusing textual (67%), design (29%),* and *translation (23%) content* so they can get things done more efficiently, that is, in less time with fewer resources.

The Dirty Details of Deploying Documentation Strategies

As documentation departments push forward with their strategies to address internal efficiencies while addressing customer demand, they face challenges that represent a mixture of new and old problems. Accordingly, these documentation departments are turning to a range of tactics to address those problems (Table 2).

Table 2: Top-Five Challenges and Responses for Documentation

Challenges		Responses	
Keeping documentation text updated to product changes	55%	Author technical publications as structured documents	46%
Past publications exist in legacy formats	29%	Migrate from document revision to topic revision process	36%
Customizing documentation to customer product configurations	25%	Project manage documentation process	32%
Documentation localization is time-consuming and expensive	25%	Automate production of final output	27%
High cost of documentation software	23%	Migrate legacy publications to new formats	23%

Source: AberdeenGroup, December 2006

Variation on an Old Theme: Using Technology to Deal with Change

Curiously enough, the top challenge, *keeping documentation text updated to product changes* (55%), is rooted in the longstanding question of when to start authoring documentation. As a product moves through its product development lifecycle, change is the only constant. Keeping up with it is painful. In response, manufacturers are addressing these challenges by *authoring publication in structured documents* (46%) and *migrating from document revision to topic revision (36%)*. The structured document approach allows document developers to single source and reuse content, by enabling a change to text in one topic to propagate into all documents using that topic. This capability makes it easier to keep the documentation updated as the design changes.

> **Pixels & Verbs, LLC**
>
> "Our software has more than 15 different features in it. While we certainly could deliver documentation for each one, we only provide documentation for the feature the user is currently utilizing, That way we reduce the complexity of the documentation exposed to the user."
>
> *Linda McMahon*

Weighed Down by the Past: Dealing with Legacy Documentation

Manufacturers still have a lot of their documents in legacy formats (29%) – a crucial challenge. However, they are responding by moving the content into newer formats (23%) that are more accessible and easier to store.

Bringing Mass Customization to Product Documentation

While it certainly may be easy to put together a strategy to customize documentation to a customer's product configuration, making it actually happen is not simple. In fact, *customizing documentation to customer product configurations* (25%) is the third top challenge indicated by Aberdeen benchmarks. Correspondingly, documentation organizations are looking to *automate production of the final output* (27%) to different publication

channels and to include or exclude documentation relevant to a specific product configuration.

Project Managing the Time and Expense of Localization

From budgeting and development timeline perspectives, localizing documentation is often the long pole in the tent. In fact, *documentation localization is time-consuming and expensive* (25%) and often demands *project management of the documentation process* (32%) to make sure the shortest critical path is taken, and time and cost are minimized.

Chapter Two:
Key Business Value Findings

Key Takeaways

- Best in class performers hit **documentation targets** on a 92% or better average.

- Laggard performers hit **translation cost targets** only 23% of the time.

- Best in class performers experience half the **translation gap** experienced by laggards.

- Best in class performers execute one third of the **post product launch changes** executed by laggards.

While the majority of manufacturers are planning to hit their product documentation authoring targets, Aberdeen research shows that they face both serious known and unknown challenges. While some are planning strategies and tactics in response, these are only as good as the results they deliver.

Top Performers Hit Documentation Targets on 82% or Better Average

To get a clear picture of which strategies and tactics are successful, Aberdeen categorized survey respondents by measuring five key performance indicators (KPIs) that provide *financial, process, and quality measures* (Figure 1). This classification subsequently enabled differentiation between the "best practices" of the top performers and the practices of lower performing documentation organizations.

Figure 1: Top Performers Hit Targets on an 92% Average or Better
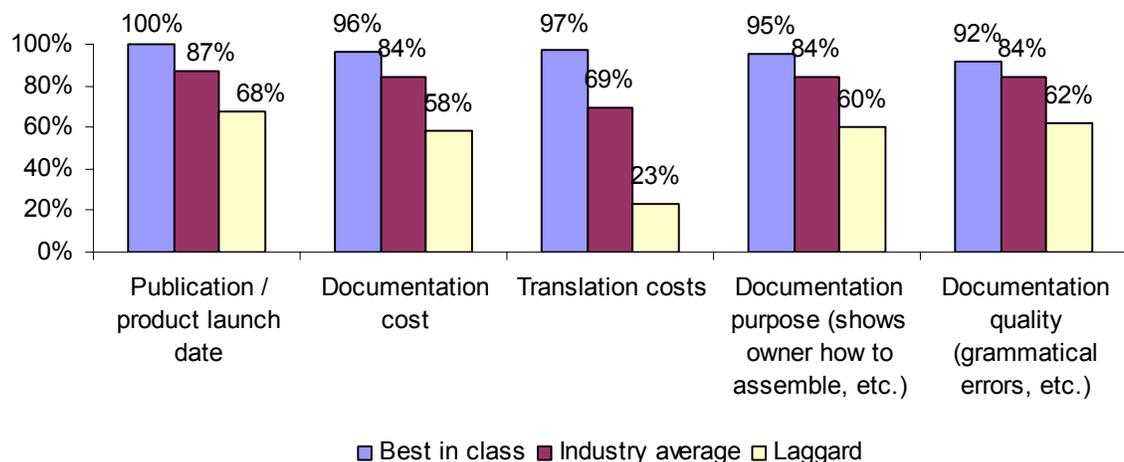
Source: AberdeenGroup, December 2006

Based on aggregate scores incorporating all five metrics, those companies in the top 20% achieved "best in class" status; those in the middle 50% were "average"; and those in the

bottom 30% were "laggard." As expected, companies in the different performance categories show substantial differences – with best in class hitting all five marks at an 84% or better average.

The Globalization Effect: Minimizing the Translation Gap

While all of the best in class performers hit their product launch dates every single time, the laggards do so only 68% of the time. What is the cause? For an answer, one needs to look no further than the overarching trend of selling products into global markets. One strategy many manufacturers are pursuing is to enter geographically adjacent markets that hold additive potential revenues without cannibalizing existing markets or entering completely new markets. The result, however, requires multinational regulatory compliance; a global presence for sales, support and maintenance; and localization of documentation.

> **Software Technology Company**
>
> "We launch our product in the primary language version first, and we launch our products across the globe after a 90-day gap. This is because our localization QA department needs enough time so they can concentrate on the quality of the translations."

As seen earlier in Table 2, localizing documentation into a multitude of different languages and dialects is costly from a time and budget perspective. Documentation departments seem to be taking two general strategic approaches to localization:

- *Trickle product launch* – In this approach, companies launch products with documentation published only in the original language. Then, as localization is completed for each subsequent language, those versions are launched. The result is a gap between original language and other language launches. The detriment of this approach is the opportunity lost in launching products later in other languages.

- *Simultaneous product launch* – In the second approach companies hold back documentation until all languages are localized. Then all products are launched in all languages simultaneously. The detriment associated with this approach is the opportunity lost in launching all language version products at a later time.

A number of technologies promise to address these problems. Structured document approaches allow writers to reuse complete sections of text that have already been translated. Memory translation technology analyzes document sections as they are written and suggests existing written and translated content for reuse. All in all, these technologies can have a profound impact.

Although all companies try to beat this translation gap between releases, Aberdeen research shows a marked difference in the results that the best in class and laggards are achieving (Table 3).

Table 3: The Globalization Gap between Product Releases

	Best in Class	Industry Average	Laggard
Time between primary and other language releases	22 days	46 days	40 days
Time primary language is held for completion of localization	9 days	34 days	36 days

Source: AberdeenGroup, September 2006

Most notably, best in class companies that employ the trickle product launch strategy experience half the translation time gap compared to industry average companies and laggards. Furthermore, best in class companies that employ the simultaneous product launch strategy experience even greater benefits: one-fourth the translation time gap compared to industry average and laggard companies.

Keeping the Customer Satisfied: Minimizing Post-Launch Changes

While blazing through the documentation process may enable documentation departments to meet product launch dates, they often sacrifice readability or usability. Achieving success in one area at the cost of another is a recipe for lagging customer satisfaction, a result that runs counter to the top business pressure for documentation, shown previously in Table 1.

Varying technologies offer promise in this regard. A structured documentation approach reduces human error because it reduces duplication and enables topic-based reviews that allow subject matter experts to focus on what matters to them. While every company aims to produce error-free and helpful product documentation, not everyone is achieving the goal (Figure 2).

Figure 2: Post-Launch Documentation Changes
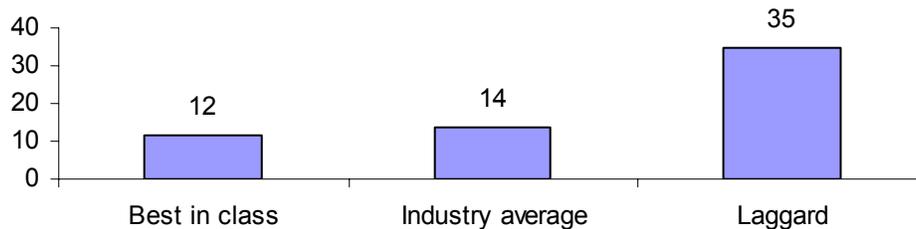
Source: AberdeenGroup, December 2006

In fact, the best in class performers experience one-third of the post product launch errors that the laggards experience.

Chapter Three:
Implications & Analysis

Key Takeaways

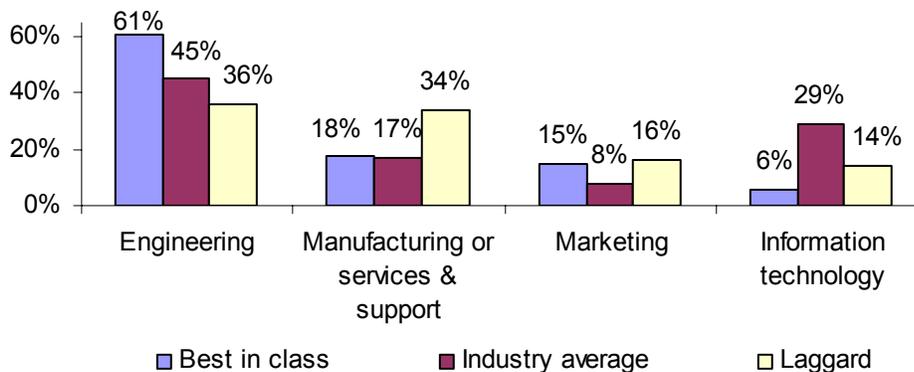- Best in class performers are 74% more likely to **integrate documentation into engineering** from a process perspective and 69% more likely form an organizational perspective.

- For text-based documentation, best in class companies are 46% more likely to author **structured documentation**, 72% more likely to use **design-based illustration tools,** and 51% more likely to employ **translation memory technology**.

- For graphical communications, best in class companies are twice as likely to utilize **embedded 3D graphics** and **Web-based 3D visualization.**

- Best in class companies are seven times more likely to track **content reuse as a measure of readability**.

As noted earlier, the aggregated performance of surveyed companies determined whether they ranked as best in class, industry average, or laggard. In addition to having common performance levels, each class also shares characteristics and practices in four key categories – processes, organizational structure, technology usage, and performance measurement.

Organizational and Process Integration with Engineering Counts

In product development companies, process and organization are often closely tied together. Initiating a process requires different groups inside and outside of an organization to work together in a certain sequence of events. Given these circumstances, how should the documentation department be organized? Results show integration with engineering is important (Figure 3).

Figure 3: Top Performers Incorporate Documentation into Engineering
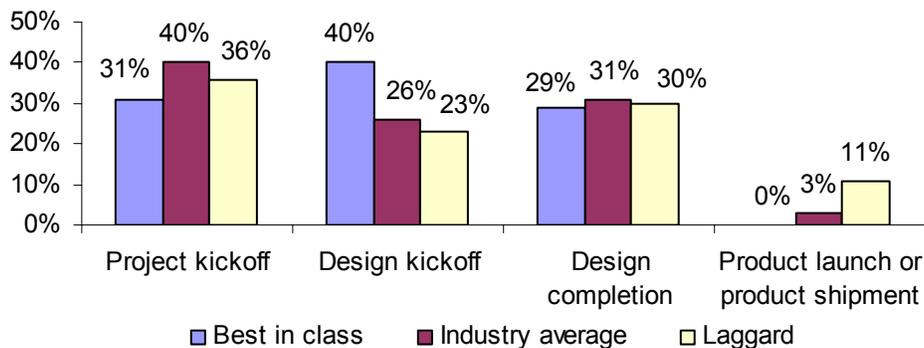

Source: Aberdeen Group, December 2006

In fact, best in class performers are 69% more likely to place the documentation department within the engineering organization. Because the primary responsibility of engineering is to develop the product, incorporating the documentation department into engineering enables concurrent development of the product and its documentation. Increased collaboration between engineers and technical writers keeps documentation up-to-date with design changes and results in successfully hitting launch dates.

> **High-Technology Company**
>
> "Rather than looking at the documentation department as a burden, management integrated us into the engineering department. This way, technical writers are directly talking to product designers about the product. This increase in communication ultimately improves the quality of the product."

When it comes to process, documentation departments are caught between the disadvantages of starting too early and having to deal with too frequent product changes and of starting too late and trying to catch up. In this case, results again show that lock-step integration with engineering is critical (Figure 4).

Figure 4: Top Performers Start the Documentation Process at Design Kickoff

Source: Aberdeen Group, December 2006

While a number of the best in class start their documentation process early at the project kickoff point, and a number start late, at the design completion point, the best in class show the most marked difference from other companies in starting the process at the design kickoff point. Specifically, the best in class are 74% more likely to start the documentation process at this phase than laggards. Similarly, in regard to organizational structure, starting the documentation process con-

> **SunGard Higher Education**
>
> "We start our documentation process at project kickoff. Instead of writing anything, the writers attend product meetings to learn about product capabilities and gain as much information as possible. Gaining product knowledge early lets us get our work done on time."
>
> *Esther Ashbaugh*

currently with product design allows for coordination and communication around product changes, the top challenge, as shown in Table 2.

When these results are combined, the conclusion is very clear. Best in class companies see documentation development as a crucial part of their product development lifecycle as compared to other companies. Interestingly, this is a marked departure from past practices in which documentation was addressed at the tail end of product development. The best in class companies are incorporating documentation as another piece of the product development process.

Improving Textual Communications: Leveraging New Technologies

When asked for their response to the challenges of deploying new documentation strategies, the top answer among best in class companies was *author technical publications as structured documents* (46%). This involves a number of technologies.

Bringing Structured Document Authoring to Bear

As a first step towards authoring structured documents, documentation departments must change how they write their technical publications. In fact, the best in class have already taken necessary steps in that direction (Figure 5).

Figure 5: Top Performers 45% More Likely to Use Structured Documents
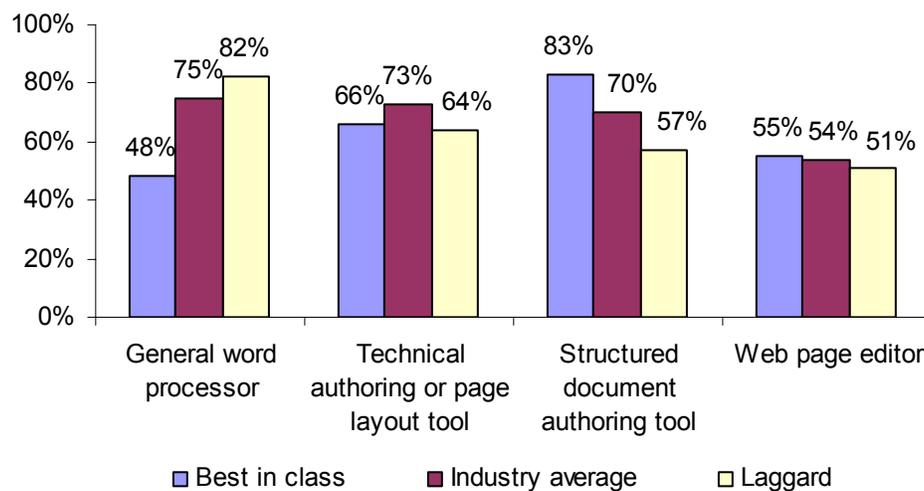
Source: Aberdeen Group, December 2006

Both the best in class and the laggards have a technical preference – but these differ. On the one hand, laggard performers are 71% more likely to use general word-processor technologies to author their technical documentation. Use of this technology is detrimental to content reuse because there is no easy way to single source content. On the other hand, best in class performers are 45% more likely (83% versus 57%) to use structured document authoring tools like XML and "help" types of technologies.

These allow them to decompose technical publications into their constituent sections and use them in a single source manner –that is, make changes in one place that automatically propagate to all instances of the text in different places – instead of requiring copy-and-paste duplication as the first step towards content reuse.

The final outcome here is that the best in class companies use structured document authoring tools to develop textual documentation in a way that enables fast and easy content reuse.

High Technology Company
"We develop different kind of guides for different purposes with a lot of similar information. With generic word processors, we had to manually update changes in each of the guides, which took inordinate amounts of time. With XML, we can automatically update content in all the guides within minutes. That saved us a lot of time."

Leveraging Design Data to Empower the Technical Illustrator

Illustrations also play a key role in documentation by visually communicating critical product information instead of forcing customers to read lengthy text. With new applications available for this specific use, documentation departments are beginning to explore the alternatives (Figure 6).

Figure 6: Top Performers 72% More Likely to Use Design-Based Illustration Tools
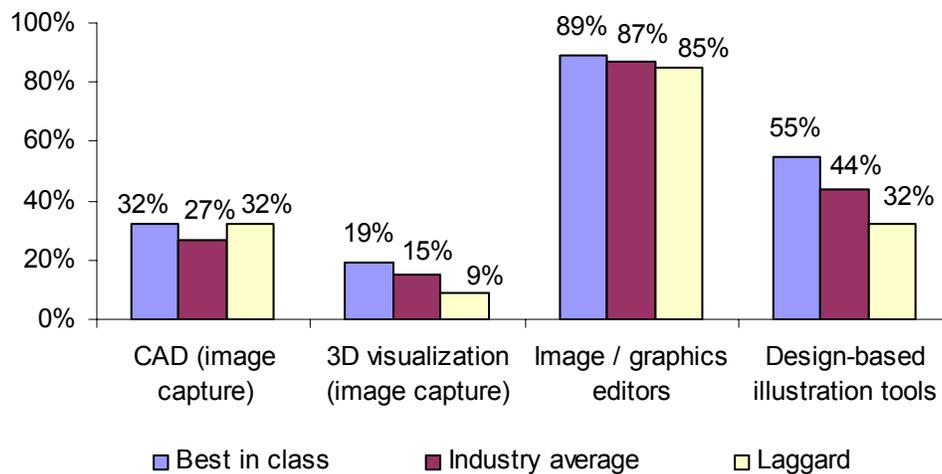
Source: Aberdeen Group, December 2006

Traditionally, technical illustrators have relied heavily on CAD users to capture images of the product, which were then used as the basis for customized illustrations. While some companies are still taking this approach – that is, *CAD (image capture)* – many others are taking advantage of new technologies.

One of the alternatives is to place 3D visualization or publishing technologies in the hands of technical writers. As a result, these writers can capture their own images instead of relying on CAD users. The result saves time for technical illustrators, because they no

longer have to wait, and for CAD users, because they no longer have to capture and send the CAD images. In fact, the best in class are more than twice as likely to use *3D visualization (image capture)* (19% versus 9%) as laggards.

The newest technology in the evolution of this image capture approach is *design-based illustration tools*. These applications read in CAD data and allow technical illustrators to develop illustrations directly from CAD geometry instead of images captured from the CAD application. This provides the illustrators with greater flexibility in developing illustrations. Similar to their leading use of *3D visualization (image capture)* tools, the best in class are 72% more likely to be using this technology to develop illustrations (55% versus 32%).

> **CDI Aerospace**
>
> "We build illustrations off of design data because there are often additional details we have to add. Utilizing a tool for illustrators lets us add those details without affecting design deliverables."
>
> *Bob Petterson*

Overall, the conclusion is that the best in class companies are empowering their technical illustrators by placing technologies in their hands, so they can work independently of CAD users and, thus, save time.

Managing Documentation Complexity with Content Management

As many companies migrate from unstructured to structured documentation, they are faced with a new and unexpected problem. Structured documentation starts to look more and more like a product bill of material. The similarity continues. As the complexity of a product increases, a need for configuration management arises. This is also the case with the increasing complexity of a structured document. Interestingly enough, the best in class are, in fact, addressing the problem with configuration management (Figure 7).

Figure 7: Top Performers 45% More Likely to Use Content Management
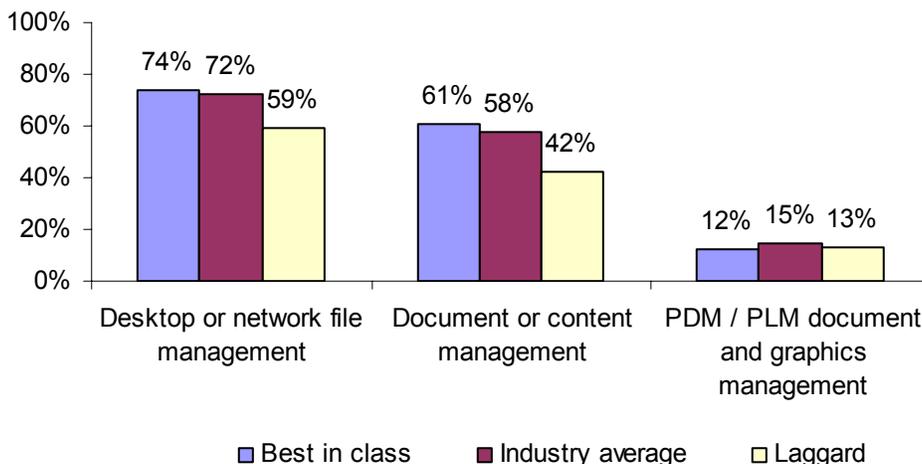
Source: Aberdeen Group, December 2006

While the majority of companies are utilizing desktop or network file management, a noticeable gap exists between the use of content and document management between the best in class and laggards. In fact, the best in class are 45% more likely to use this technology (61% versus 42%). Companies are turning to this technology because structured documents result in relationships between topics. Given a large enough document, this structure can become extremely large, making it impossible for an individual to manage all of the relationships.

> **Scantron Corporation**
>
> "We have a number of products that have shared features, and one of the biggest challenges we are currently facing is developing targeted documentation. We are planning to switch to a robust content management system that would help us in developing customized documentation for our customers."
>
> *Bonni Graham*

Smart Reuse: Memory Translation Tackles the Globalization Problem

With the growing sale of products globally, companies must increasingly deliver documentation localized for a large number of dialects and languages. Because localization is expensive and time-consuming, companies are trying to minimize the amount of localized content. Memory translation is a new type of technology that can help. In fact, best in class performers have readily adopted this technology (Figure 8).

Figure 8: Best in Class 51% More Likely to Use Translation Memory Technology
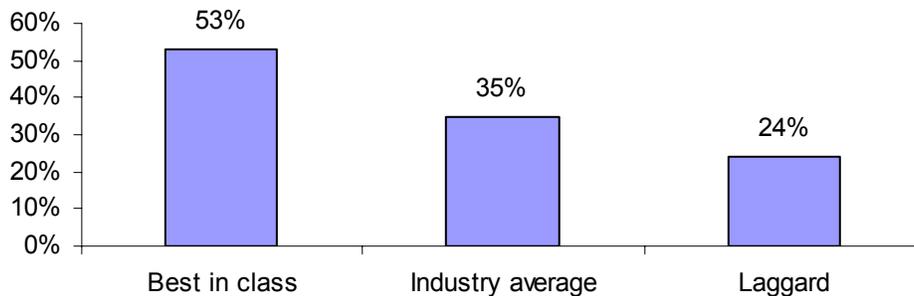
Source: Aberdeen Group, Month 2006

In particular, the best in class performers are 51% more likely to adopt this technology than laggards (53% versus 35%). It dynamically analyzes what is currently being written against the database of existing translated content. When it finds an exact match, it delivers the already translated content to the user. When it finds a close match, it suggests an alternative existing piece of content that has already been translated. All in all, the idea is to reuse content already written and translated, so that only net new

> **Medical Technology Provider**
>
> "With the use of translation memory, we were able to cut the timeframe for translating our documentation by 40%. In addition to that, we were also able to reduce the translation cost from $7 million to $1.5 million"

content is translated. The bottom line is that if there is less to translate, less time and money are required to localize content.

The message here is clear. Use translation memory to reduce costs, increase accuracy and consistency, and, finally, decrease the time required for translating global documentation. These process improvements can allow companies to release all their documentation in different languages at the same time and decrease the globalization gap in launching products worldwide.

The Emergence of Graphical Communications

While many companies depend exclusively on text-based types of documentation, others are turning to more radical types of communications based primarily on graphics and minimally on text. While adoption rates are low, best in class performers are taking advantage of the new trend (Figure 11).

Figure 9: Top Performers Twice as Likely to Use 3D Graphical Communications
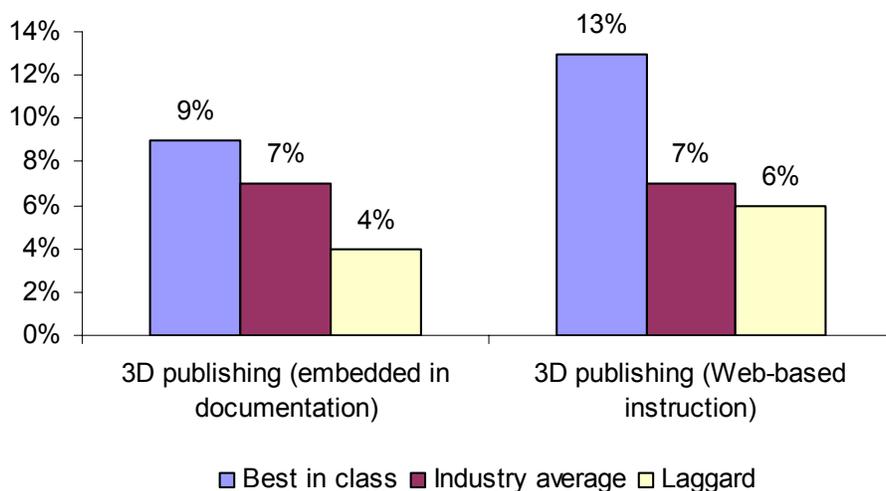
Source: Aberdeen Group, December 2006

Companies are using 3D visualization and publishing technologies to embed dynamic 3D graphics within electronic documents. This allows users to explore the product in fine detail and see animations of procedures applicable to service and maintenance. Because this technology is necessarily dependent on electronic documents, the consumers of this type of information are more frequently internal, for example, service personnel.

With the second technology shown in the chart, companies avoid authoring page-based documentation and instead create only Web-based information. This approach differs from the previous one in its primary dependence on 3D graphics and 3D animations to communicate procedures visually instead of using at least some text.

In both cases, the best in class are twice as likely to use these types of capabilities and technologies. Additionally, both types of technologies provide substantial benefits by

reducing the time and cost of localization because communicating with graphics instead of words reduces the amount of text there is to localize. Some companies focus on this so strongly that they deploy text-reduction initiatives specifically to reduce localization.

Tracking Performance: Quantifying Readability and Usefulness

Documentation is reviewed multiple times by technical writers for readability before it is finalized and ready to publish. Readability is an important attribute for increasing customer satisfaction, and companies are taking important steps to check the clarity and accuracy of the data (Figure 12).

Figure 10: Best in Class Seven Times More Likely to Track Reuse for Readability
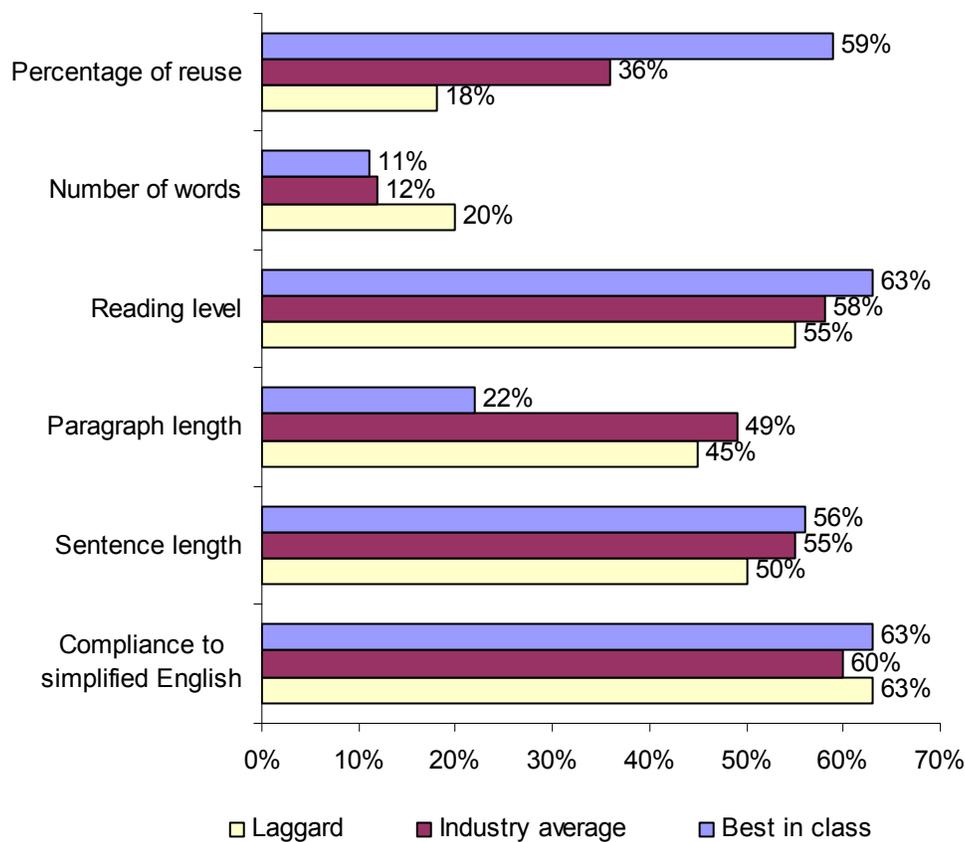
Source: Aberdeen Group, December 2006

While best in class companies lead in checking most of the above measures – *compliance to simplified English, sentence length, reading level, and percentage of reuse* – to ensure the readability of the documentation, there is a dramatic difference between them and other companies in *percentage of reuse*. Best in class companies are seven times more likely to use percentage reuse as a key readability performance indicator compared to the other companies (59% versus 18%). The reason is simple: consistency in documentation makes it easier to digest and consume. When an instruction or description of something is

written in different styles and text, readers will likely not recognize and remember it. In short, content reuse simplifies the text and reinforces the message.

Chapter Four:
Recommendations for Action

<div style="border">

Key Takeaways

- Kickoff the documentation process at the same time as design process kickoff.
- Organizationally integrate the documentation department into engineering.
- Distribute structured document and content management tools to technical writers.
- Provide 3D visualization and design-based illustration tools to technical illustrators.
- Deploy translation memory technology to localize product documentation.
- Utilize 3D publishing technology to increase graphical communication.
- Track content reuse to check for documentation readability.

</div>

The responsibility of the documentation department is increasing and changing -- from page- and paper-based documents to multi-localized and multi-channel documentation programs. At the same time, executives are reducing budgets and resources that support these efforts. As a result, regardless of whether a company falls into the "best in class", "industry average" or "laggard" category, the following actions can help improve its performance in creating on-time, cost-effective, and easy-to-read documentation in different languages.

Laggard Steps to Success

1. *Start developing documentation earlier in the product lifecycle, specifically at the design kick-off stage.*

   To hit documentation launch dates, start the process earlier in the product lifecycle, in lock step with engineering, at design kick-off. Integrating the documentation process into the overall product development cycle promises significant long-term benefits.

2. *Use structured document tools for authoring documentation instead of using general word-processing capabilities.*

   Using low-cost word processors often necessitates time-consuming and burdensome duplication through copying and pasting of content. Switch to structured document tools such as XML and "help" authoring technologies to avoid duplicating content by linking to a single instance of content. This single sourcing approach results in huge time and cost savings, consistent content, fewer human errors, and automated propagation of content changes.

3. *Track content reuse as a measure for checking document readability.*

   Consistent and repetitive writing styles and content make it easier for readers to absorb the information, resulting in greater customer satisfaction. Because con-

tent reuse is a means of achieving this goal, many best in class performers are pursuing this measure as a leading indicator of document readability.

Industry Average Steps to Success

1. *Place the documentation department within your engineering organization.*

   Integrate the documentation department into engineering, so that technical writers can work in close collaboration with engineers. This will make them more knowledgeable about the product and, thus, result in updated and accurate documentation

2. *Empower technical illustrators with 3D visualization and design-based illustration tools.*

   Place illustration technologies in the hands of technical illustrators to make them independent of CAD users. With these technologies, illustrators can start developing illustration without waiting for CAD users, saving time for all the stakeholders.

3. *Use translation memory technology for multi-lingual documentation.*

   Translating documentation is getting more costly and time-consuming. Adopt translation memory technology to increase reuse of already translated content, so that the documentation department can do more with fewer resources. Using this technology can also reduce the globalization gap, so that companies can launch products around the globe at the same time.

Best in Class Next Steps

1. *Use 3D publishing technologies to deliver interactive Web documentation.*

   Some best in class performers are replacing their text- and paper-based documentation with emerging Web-based, interactive forms of graphical communication. Using 3D publishing technologies allows customers to explore the finest details of the product in an electronic document. This also dramatically reduces localization efforts because it reduces text and increases visual communication.

2. *Deploy content and document management systems to address increasing document complexity.*

   As more companies move to structured document authoring, they are turning to content management systems to track a document's increasingly complex relationships. Deploy these technologies to remove the burden of structured documents from technical writers.

Send to a Friend

Appendix A:
Research Methodology

D uring October 2006, Aberdeen Group, the Society of Technical Communications, the Institute of Scientific and Technical Communicators, and the Center for Information-Development Management examined the experiences and intentions of more than 332 enterprises regarding developing product documentation. Responding documentation developers completed an online survey that included questions designed to determine the following:

- The degree to which product documentation impacts corporate strategies, operations, and financial results

- The structure and effectiveness of existing product documentation procedures

- Current and planned use of automation to aid these activities

- The benefits, if any, that have been derived from product documentation efficiency initiatives.

Aberdeen supplemented this online survey effort with telephone interviews with select survey respondents, gathering additional information on product documentation strategies experiences, and results.

The study aimed to identify emerging best practices for document developers and technical writers and provide a framework by which readers could assess their own documentation capabilities.

Responding enterprises included the following:

- *Job title/function:* The research sample included respondents with the following job titles: documentation staff (44%), documentation managers (33%), internal consultants (4%), documentation directors (5%), and senior management (CEO, COO, CFO) (7%).

- *Industry:* The research sample included respondents predominantly from technology industries. High-technology/software industries were represented by 39% of respondents, followed by computer equipment and peripherals, which accounted for 10% of the sample. Industrial equipment and telecommunication equipment manufacturers totaled 7% of respondents. Other sectors responding included aerospace and defense, telecommunications services, medical devices, automotive, and publishing media.

- *Geography:* Nearly all study respondents were from North America, accounting for 70% of respondents. Remaining respondents were from Europe at 20% and the Asia-Pacific region at 8%.

- *Company size:* About 33% of respondents were from large enterprises (annual revenues above US$1 billion); 27% were from midsize enterprises (annual revenues between $50 million and $1 billion); and 39% of respondents were from small businesses (annual revenues of $50 million or less).

Solution providers recognized as sponsors of this report were solicited after the fact and had no substantive influence on the direction of *The Next-Generation Product Documentation Benchmark Report*. Their sponsorship has made it possible for Aberdeen Group and Society of Technical Communications, Institute of Scientific and Technical Communicators and Center for Information-Development Management to make these findings available to readers at no charge.

Table 4: PACE Framework

PACE Key
Aberdeen applies a methodology to benchmark research that evaluates the business pressures, actions, capabilities, and enablers (PACE) that indicate corporate behavior in specific business processes. These terms are defined as follows:
Pressures — external forces that impact an organization's market position, competitiveness, or business operations (e.g., economic, political and regulatory, technology, changing customer preferences, competitive)
Actions — the strategic approaches that an organization takes in response to industry pressures (e.g., align the corporate business model to leverage industry opportunities, such as product/service strategy, target markets, financial strategy, go-to-market, and sales strategy)
Capabilities — the business process competencies required to execute corporate strategy (e.g., skilled people, brand, market positioning, viable products/services, ecosystem partners, financing)
Enablers — the key functionality of technology solutions required to support the organization's enabling business practices (e.g., development platform, applications, network connectivity, user interface, training and support, partner interfaces, data cleansing, and management)

Source: Aberdeen Group, Month 2006

Table 5: Relationship between PACE and Competitive Framework

PACE and Competitive Framework How They Interact
Aberdeen research indicates that companies that identify the most impactful pressures and take the most transformational and effective actions are most likely to achieve superior performance. The level of competitive performance that a company achieves is strongly determined by the PACE choices that they make and how well they execute.

Source: Aberdeen Group, Month 2006

Table 6: Competitive Framework

Competitive Framework Key
The Aberdeen Competitive Framework defines enterprises as falling into one of the three following levels of FIELD SERVICES practices and performance:
Laggards (30%) — documentation practices that are significantly behind the average of the industry, and result in below average performance
Industry norm (50%) — documentation practices that represent the average or norm, and result in average industry performance.
Best in class (20%) — documentation practices that are the best currently being employed and significantly superior to the industry norm, and result in the top industry performance.

Source: Aberdeen Group, Month 2006

Appendix B:
Related Aberdeen Research & Tools

Related Aberdeen research that forms a companion or reference to this report include:

- *The Product Collaboration Benchmark Report: The Product Profitabilty "X Factor"?* (June 2006)
- *The Product Innovation Agenda Benchmark Report* (September 2005)

Information on these and any other Aberdeen publications can be found at www.Aberdeen.com.

Founded in 1988, Aberdeen Group is the technology-driven research destination of choice for the global business executive. Aberdeen Group has over 100,000 research members in over 36 countries around the world that both participate in and direct the most comprehensive technology-driven value chain research in the market. Through its continued fact-based research, benchmarking, and actionable analysis, Aberdeen Group offers global business and technology executives a unique mix of actionable research, KPIs, tools, and services.