

White Paper

What is a product without documentation?

The challenge of publishing Product Documentation in today's business world of globalization, regulations and time to market pressure.

"We found that Xerox was the only company that could manage the complexity of the solutions."

Peter Flemming Madsen - Danfoss Drives.

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Manufacturers are under increasing pressure to reduce production costs, improve quality, customize communications, reduce lead times, eliminate inventory and shorten time to market.

Introduction

Management of assets, such as inventory, is a key challenge for the appliance industry. One such asset is product-support documentation, which includes items such as assembly instructions, user manuals, installation guides, maintenance information and manuals. Customers expect such documentation to be high in quality and for the content to be accurate and easy to use.

Today, however, many manufacturers still use offset lithography printing technology to produce manuals. Given the high set-up cost associated with offset printers, companies are forced to print large quantities of manuals to obtain a low unit cost per manual. Typically, manufacturers will use the number of manuals they immediately need and then place the remaining manuals into inventory. The philosophy is one of, "just in case." However, many of these manuals eventually become obsolete before they can be used. Simply put, offset printing technology—with its slow turnaround times, large run quantities, high handling, obsolescence and storage costs—can't match the productivity gains made in other areas of manufacturing.

If offset printing isn't the answer, what is? Print on Demand (POD). These solutions are intended to provide the right document in the right place and at the right time and in the right quantity.

Just-In-Time Product Documentation

Fuji Xerox has expanded the POD concept into Just-In-Time Product Documentation. This solution delivers flexible document production with shorter lead times (order delivery cycles) and smaller batch sizes (down to a copy factor of one), by combining high-speed digital printers with a digital repository of manuals. A Xerox software application is then used to control the order, production and document-management process. The Just-in-Time Product Documentation solution focuses on the automated fulfillment of service booklets, user manuals, installation guides and other customer communications that accompany products. The solution not only considers the fulfillment of these documents in traditional paper form but also offers the potential for developing delivery via CD-ROM or the Internet.

Just-in-Time Product Documentation enables manufacturers to align the ordering of documentation exactly to their product needs. Physical inventory for documentation can, in principal, be reduced to the level dictated by the basic production lead-time. As a result, substantial savings are achievable on inventory, storage, handling and the associated obsolescence that typically occurs.

This meets the need of manufacturing companies to optimize the management of assets through the elimination of inventory.

Another aspect of product documentation that poses a challenge is the production of manuals in multiple languages. Manufacturers, who are distributing their products globally, require product-support documentation to be available in the language of each target country. Many manufacturers address this need by creating manuals that include multiple languages. While a manual in three languages (English, Spanish and French) may satisfy North America, in Europe manuals with up to 15 languages are quite commonplace, though they may have a negative impact on customer satisfaction. That is, customers prefer product-support documentation in their primary language. Searching pages before finding the right instructions can be very frustrating.

Plus, the cost of printing extra pages is expensive. Electronically stored manuals, however, manage multiple language versions of the same document, and nothing needs to be stored in physical inventory. Appliance manufacturers using Just-in-Time Product Documentation include Whirlpool, Electrolux, Panasonic, Black & Decker and Merloni.

Danfoss is first

Danfoss Drives, a Danish manufacturer of electrical drives and frequency converters, wanted to reduce lead times for the manufacturing and dispatching of

products to its customers. In order to achieve a competitive advantage, Danfoss targeted a 24-hour lead time, while looking to grow its business by extending its product range, expanding its geographical marketplace and increasing the number of distribution channels.

Danfoss foresaw logistical problems and expenses in managing the production, picking and packing of its technical documents and determined that it needed an innovative and cost-effective alternative to holding a large inventory of documents. Danfoss turned to Xerox and the result was the world's first fully automated system for Just-In-Time Product Documentation.

The system sits directly in-line with the Danfoss product dispatch facilities. Currently, up to 2,500 user manuals and installation guides are ordered each day, each being delivered at the right time within the product packaging cycle and placed directly into the box containing the product. Inventory has been eliminated for all of the several hundred document piece parts. Lead times for documentation have been cut from several days to less than 34 minutes. And logistics have been streamlined due to simpler management processes.

Black & Decker

Black & Decker's National Returns Center in Nashville (USA) had a challenge that was different from the Danfoss situation.

In the Nashville factory, returns are repaired so that they may be resold

as used equipment through one of the Black & Decker outlets nationwide. Since returns are fairly random, the factory in Nashville has to be equipped to repair all products sold, within all revision levels, and without a production schedule.

Invariably, when the products are returned, user manuals are either missing or damaged. So, the Nashville factory was stocking huge quantities of manuals with several versions for each product, and it was often difficult to retrieve the correct manual when needed. What was the solution? Black & Decker created an electronic repository of all its manuals, scanning them into the repository using Xerox FreeFlow solutions. Now, when a production operator requires a specific manual for the product being refurbished, an order can be placed by part number and revision. The manual is then printed on a production printer and delivered to the operator so it can be immediately packaged in the box with the refurbished product.

Looking ahead

Managing the document-creation process with multiple product revisions and multiple languages is becoming more challenging. Although establishing a document-creation process for easy updating requires effort, specific tools exist. Once a process has been established, the benefits are significant. Most notably, the time to update documents is reduced and accuracy is much higher. Further, the efficient printing of a manual for just one customer, with information on a specific product and

specific options, and with the customer's name on the cover and the support contract within the manual—is now possible. As this trend toward customization continues to increase, so, too, will Just-in-Time Product Documentation.



Glossary of terms

Printing On Demand — An environment where users can select a document from a repository (catalog) and have it printed (on demand).

Product Documentation — The documentation belonging to a product. Product Documentation ranges from User Manuals, Warranty Card to the display box.

Just-In-Time Product Documentation — An environment where the product documentation is published at the moment the product is manufactured. Which will avoid stock quantities and waste.

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