Manuals Are Not Always "Manual"
By Thomas P. Burke

This is the second in the series *Outsourcing Product Support Manuals: A Product Manager's Perspective*

Long gone are the days when every piece of equipment was accompanied by one or more printed manuals. You still get them with some consumer electronics devices and power tools, but it's becoming a rarity. When is the last time you bought software and received a paper manual? Most likely, you downloaded the software from the Web and received a link to a .pdf so you could access and print your own manual. This represents a huge savings in printing, shipping, and maintenance costs to the manufacturer, but there's more than simple economics involved in the move toward electronic delivery.

Printed manuals can take up a lot of space. If space is at a premium, you'd like to reserve that space for other uses. Submarines and battle tanks are good examples. A Navy submarine requires more than 100,000 pages of technical documentation to operate and maintain the propulsion, control, support, and weapons systems on board. These manuals, in paper form, consume a lot of scarce space. But storage isn't the only issue. Downtime budgets in the military world are extremely tight, as they are in manufacturing environments. When something fails, you want to be able to find the information needed to fix it and get the system back on line literally in minutes. Storage limitations and system availability issues are why the military services began using electronically-stored manuals more than 20 years ago. Interactive Electronic Technical Manuals – IETMs (I-eat-ums)for short – have become a way of life in that world.

Manuals used in a working environment such as a factory floor have a way of disappearing, sometimes because there's simply no convenient place to store them near the equipment. If an operator or technician needs real-time help to accomplish infrequently-performed tasks or troubleshoot problems, you may need to provide job performance aids such as laminated instruction sheets that can be hung on the equipment. Or you could even go the extent of providing electronically stored operating and maintenance instructions in a searchable data base that the operator and maintainer can access via a menu-driven display located at the equipment.

Why does all this matter? The answer is that the delivery medium, to a great extent, defines the data structure, so it needs to be decided in advance. Content that is developed for print delivery isn't going to translate well for electronic media unless you simply want an electronic page turner. A traditional paper technical manual contains running narratives or procedures with supporting figures inserted near the point of reference. A subject can go on for page after page, with illustrations appearing several pages beyond the point of reference. When you are developing electronic job performance aids or operation and maintenance instructions for screen-based delivery, the content needs to be

chunked much differently; i.e., each page (screen) should be self-contained. If a topic requires multiple screens, there needs to be a hierarchy of screens, with two-way linking, but again with each screen containing a discrete block of information.

In summary, if the product is used in an environment where downtime is critical, there is a strong argument for critical information and procedures to reside in a searchable data base, so it can be accessed immediately. In such an environment, the time it takes to find the printed manual, and then locate the needed information in its 200 or so pages, will have plant managers tearing out what's left of their hair. Whoever is going to prepare the content should be able to should be able to help you decide the best presentation medium, whether print or electronic, and then have the ability to implement the solution.

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