OUTSOURCING PRODUCT SUPPORT MANUALS: SCOPING THE JOB

By: Thomas P. Burke

If you are a product manager responsible for a complex instrument or machine, your product needs a technical manual to support operation and maintenance. So how do you insure that the manual will meet the needs of your audience? The answer is: by doing the basic design work needed to establish the boundaries within which the manual will live.

So what do we mean by "boundaries?" The boundaries are the design elements that create the structure for the manual. The term "design" is not used loosely here. As in other structured design processes there are many variables that must be considered. What it boils down to is a series of questions you need to be prepared to answer when you kick off the technical manual effort. It doesn't matter whether you are outsourcing to a tech writing vendor or "in-sourcing" to your own tech pubs group. If the person who will be developing the manual isn't asking these questions, you should be concerned, because the answers determine the breadth and depth of the manual, as well as its potential effectiveness. Here are the main questions that need to be answered as part of the documentation design process:

Who is the audience?
What knowledge and skills do they need to maintain this product?
What applicable knowledge and skills do they already have?
Who will be servicing the equipment and where will they be doing it?
What language(s) do they speak?
What spare parts will they have available?
What tools and test equipment will they need?
What are the equipment availability (downtime) requirements?
How is the information to be presented – print or electronic?

For sake of this discussion, we'll assume that your product requires some amount of maintenance in the field, along with troubleshooting and repair information for those rare occasions when the product fails. It doesn't matter too much whether the maintainers are factory techs or customer techs.

The design process has to start with some form of task and skill analysis, job-task analysis -- whatever you choose to call it -- in which you define the knowledge and skills required to operate and maintain the product in the field. At that point, you can define prerequisite knowledge and skills; i.e., what you can assume the target audience already knows. For example, if your product will only be used in manufacturing facilities where there are likely to be trained maintenance technicians, you can assume the target audience knows how to use common tools and test equipment. If factory-trained technicians –

yours or the clients' – will be doing the maintenance work, you have an even clearer picture of what they know, what they can do, and how they are likely to be equipped.

The *maintenance policy*, another important variable, is an outflow from the product design process. You would not have built the equipment without establishing where, how, and by whom it was going to be serviced and repaired. The affect of maintenance policy on the design and content of a technical manual is a subject in itself, but let's view the highlights. Some maintenance tasks -- fuse, battery, and drive belt replacement, for example -- may be allocated to equipment operators. On the maintenance side, field maintenance and repair can range from s*end-it-back-and-we'll-send-you-a-new-one* to in-situ diagnosis and repair of complex machinery by the user. In the latter case, the content of the maintenance manual is bounded largely by the spare parts that are available to the user and the tools and test equipment they re likely to have on hand. Again, if the product is going to be maintained by factory service techs, you either know, or can specify, the tools and test equipment.

This has been an overview of the factors that bound the design of a product support manual. It's a start, but there's a long way to go. In the next article of this series, *Manuals Aren't Always "Manual,"* we'll investigate how to determine the delivery medium best suited for the job.

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