

Beginner's Mind: Recalling the Basics of Tech Writing

by Patricia Dehne Major

Once in a while, it's good to review the basics of technical writing. This article is a brief summary of the "mental checklist" that has helped me through many writing projects. I am primarily referring to organizing, designing, and writing technical manuals, but these guidelines may apply to other types of reference materials and instruction books, as well.

Familiarity Breeds Relief. Unless you're completely familiar with the information you intend to document, there will likely be a research period at the start of your project, better known to seasoned veterans as the "fogbank stage." (A writer in this early stage of a project tends to appear slightly on edge and/or totally dumbfounded.) For some period of time, whether it's a few minutes or even a few weeks, you may feel that because you're not cranking out chapters, you're not being productive.

By using the ideas in this article, by researching and interviewing as much as you need to, and by believing that you will reach some crossing point of understanding, you can minimize this stage. With any luck, after a short time, you'll forget you ever felt this lost, until it's time to start another project.

Begin at the middle? We're often expected to provide a preliminary table of contents for a new project. It's a starting place, valuable mostly because it raises a lot of unanswered questions. Although it may seem ridiculous, the next place to go for many projects may actually be to the *middle*. Often, products under development have some phases or features that are closer to completion or that are easier to understand than others. By ignoring the early parts of a book (typically an overview or other conceptual information), and by writing what you know, you can then expand to other areas later. You'll feel productive sooner than you otherwise might, and your questions about other parts of your project may be more focused.

You may need to make an exception to this idea when you are forced to make a detailed estimate of your writing schedule or when working as part of a team of writers, or for other reasons. But it's usually best to wait until last to write the "final" overview. It can serve as a checkpoint for you in later stages, since it can be easy to see any missing or out-of-sequence information when you're trying to provide a concise and logical overview.

First draft questions. Although most of the following questions seem obvious, it helps to review the list once in a while:

- Does this product require a brand new manual, or is it a revision of an earlier document? Do I need to match this document to an existing set of manuals?
- What's the best way to present the info for the user? Can the information go on a reference card, on a label applied directly to the product, as part of a set in a three-ring binder, in a single perfect-bound or saddle-stitched manual, in online help, on CD ROM, or even a combination of these or other options?
- In what order would topics most effectively be presented? What will the user want to know first? Do they need a simplified startup procedure? Do they need detailed information before operating the product?
- What do they NOT need to know? Most engineering specifications are filled with more detail than any user will need in a lifetime. Which pieces are essential?
- How can I give them what they need without being overwhelming? What do they need to know in order to understand what I'm telling them right now? Will a reference to another section be helpful enough, or do they need to have some or all of the information available in this particular spot, even though it might be presented elsewhere?
- What information is so seldom used or used by so few users that it can be moved into an appendix?

A little more to the left, please. How does the Marketing Department want the user to see the product? What are the most important features? What need does the product fill? For example, when I first received a recent specification for a local area networking concentrator, I started describing it in the manual as an isolated product. Then I found out that even though it's a dedicated concentrator, Marketing wants the user to see this as one of a set of products. Yes, it's capable of operating on its own. But they want to call attention to its relationship to other products. It changed the whole focus of the manual.

Preexisting conditions. Are there other products with similar functions or commands? Can information be "lifted" partially or completely from earlier manuals? Should any of these other products be mentioned in this manual?

The bare necessities. What's actually essential info for the user? (Does the user really need to know that the cross-head screws were made in Germany in 1972 using an anodizing process that keeps the threads from rusting at high altitudes?)

Be even-handed. Know your audience so you can be consistent about the level of information you are providing. For example, maybe on page 4, we tell them a network is two or more computers linked either locally or remotely; but, then on page 7, we tell them to use Spanning Tree to ensure that no looping occurs. If they needed to hear the definition of a network, they won't understand what Spanning Tree is without further explanation. Conversely, if they already understand Spanning Tree, they sure won't need to know what a network is.

Segues. The best disk jockeys know how to glide from one recording to the next without jarring their listening audience. Good writers know how to do the same thing with readers. Make sure the information moves in a logical and connected way from one paragraph to the next. Read what you've written – does one paragraph segue into the next, or have you just jolted them from Bluegrass to Rap?

Be predictable. This is almost the same thing as "Segues". If you are talking about how to install something, don't branch off in the middle by giving them a tutorial on operating the software. Try to put things where you'd want and expect to find them if you were a first-time reader.

Talk it out. If a sentence just isn't writing itself and you can't figure out how to say it in less than 500 words between commas, stop and go take a break. (Whew!) Then come back and imagine how you would explain whatever-it-is to somebody standing in your office. Maybe even grab somebody and explain it conversationally to hear the way you would say it. Then try to write that down on paper. Of course, you'll probably have to do some cleanup, but chances are, you'll have figured out how to be more concise or at least how to explain it more clearly.

The wisdom of repetition. Use the same terminology to mean the same thing throughout the manual, unless you are deliberately trying to rephrase something in order to provide another point of view. (Especially now that so much of the technical audience speaks English as a second language, it's easier on the mind of the reader to see the same word or phrase repeated than it is to see the same thing written twelve different ways.) This is just the opposite of what many of us were taught in school about using as many different words as possible. In technical manuals, however, we are writing to make it as easy as possible to understand, not to tickle the mind (theoretically, anyway...).

Start making sense. Remember to question the language that you get from within the company. Is the user really going to know what an alpha-switch is, just because the designer has called it that since the inception of the product? What is the function of the alpha-switch? Could we call it something more intuitive? Unless something has a fixed name that appears to the user in software or on a label (in which case, we may be stuck with that terminology), as writers we can probably call it whatever makes most sense. And even if it's being called something in software or on a label, maybe it still can and should be renamed. (I recently asked to have a switch relabeled from "I and O" to "Terminated" and "Unterminated" because in order for the user to select the correct

setting, they would have to refer to the manual to know what "I" and "O" translated into functionally. The ideal for any product is to have the user be able to install and operate it without looking at the manual at all (especially since that's what a lot of users try to do anyway).

Eschew obfuscation. If at all possible, translate every paragraph into understandable English. You don't need slang, but when you find yourself plugging in phrases directly from the Engineering Department, be sure to take another look. If you didn't already know about the product and what it can do, would you really understand what that paragraph means? If you are referring to a command, did you use the actual command name or just a vague reference? How does the information really apply to what buttons they need to press or which letters they need to enter? Eliminate abstraction as often as possible.

Have two heads. Once the very first rough draft is done, become an editor in between your writing stints. Be ruthless about commas. Pare down sentences to their most concise forms. Stop and read each section to see if it flows. Look for areas that need clarification. Put your ego aside, get a red pen, and imagine it's somebody else's manual that you're editing.

It had to be you, you, you. You should probably use "you" in your writing as often as you feel it is natural. Your manual and your style will seem more accessible with a few *you's* thrown in as you write. Your mind will probably find it easier to use your product, especially if you use imperative voice with your active verbs. But, for pity's sake, don't *YOU* them to death. In fact, suspect that you're overdoing it if you see the word *you* more than once or twice on any page, especially if you find a paragraph loaded with them like this one is. If you are paying attention to keeping the writing concise, this should probably take care of itself for the most part. You can, you should, your product, your manual. A little goes a long way.

Tote that barge, turn that phrase. Producing writing that flows is a combination of all of the above ideas, plus an instinct for what feels right and what doesn't. It also requires a sense of rhythm. When something I've written doesn't seem right, I usually end up reading it aloud. If I can't say it easily, it may not be easy to read. Try to write in natural, everyday language, minus the slang. Which leads to one more thought...

Avoid clichés like the plague. (I believe William Safire said this.) Anyway, clichés seem to cause a sort of instant brain death, causing the mind to zone out when phrases get predictable. Besides, there's no room for clichés in concise writing. The same guidelines apply to colloquialisms. Technical readers are normally not reading for pleasure — they just want the facts. A reader's trust and patience can be diminished by an overly familiar tone.

Be invisible. If your writing sounds like somebody with a towering vocabulary wrote it, tear it up and start over. The idea is not to sound impressive, but to go unnoticed. Technical writing is like a high wire act — when you're good, it looks easy. So throw out those four-syllable words and come down to earth.

To sum it all up. Most of the above questions and guidelines are focused on the reader's needs. Most readers would rather be using the product than reading about it and they often resent having to look at the manual at all. A good technical writer always keeps this and thus, the reader, in mind.

Someone once commented to me that it would probably be difficult to have a big ego and also be a good technical writer, and I tend to agree. If we technical writers can take ourselves out of the picture and focus on the reader, the manual or other documentation will undoubtedly be better for it, and the readers won't even notice — which is a sure sign of success.

Added note: For some delightfully funny tips on thesis writing, visit the following website:
<http://core.ecu.edu/psyc/wuenschk/thumor.htm>

Appendix: Writing Examples

Here are some examples that I used when I presented this information as a course at Hughes LAN Systems. How would you rewrite them?

Original Text Example 1:

In multi-user environments, the network administrator can add or remove XFAM users, control user access to XFAM, and close active user sessions prior to issuing a database maintenance command, such as shutting down the database. If an action cannot be performed, an informative message appears.

Possible Revision of Example 1:

As the network administrator in a multi-user environment you can:

- add or remove XFAM users;
- control user access to XFAM;
- close active user sessions prior to issuing a database maintenance command, such as shutting down the database.

If you try to perform a function that is not available, a message appears.

Original Text Example 2:

This diversity of models and vendors of networking products makes it readily apparent that a network management technology specific to a particular vendor would be unworkable in such an environment. Likely, an "open" (that is, non-proprietary) networking technology must be used to manage these networks.

Possible Revision of Example 2:

An open network technology, as opposed to a proprietary technology, makes it possible to manage networking products that include a wide variety of models and vendors.

Keep your eyes open for examples that we can use in future writing classes. With any luck, and some diligence, none of the forthcoming original texts will be yours!