

## About writing articles for TEST

**Contact the editor first:** Before you start working on an article, call, FAX, write, or send me an e-mail message. In it, briefly synopsise your article idea. If the idea sounds promising, I'll probably want to have a phone conversation or an e-mail exchange with you. Don't lose heart if I don't reply right away—I'm sometimes overwhelmed with deadlines. And a second inquiry might be a good idea too.

**The kinds of articles we publish:** We publish articles that are technically useful to those who perform physical and mechanical testing and/or environmental simulation and its related areas. We publish "how-to" articles, articles that discuss the philosophy behind testing, and articles that challenge existing test concepts, ideas, and standards. Our readers are interested in relevant new products, innovative ideas, clarification of existing but complicated techniques, and new uses for existing equipment and/or techniques. We publish articles that give solid technical details and refrain from making grand claims; remember, everyone who reads the magazine is involved *hands-on* with testing. We prefer for articles to be related to the focus we have established for each issue, but accept interesting articles that do not neatly fit into any issue's upcoming focus. Some focuses are annual; others change from year to year. In any case, please check this year's editorial calendar for details.

**Author qualifications:** Since TEST's readership is technical, we greatly prefer authors with technical backgrounds. If you are writing out of your own personal testing experience, that *automatically* qualifies you as an author, even if you are not *formally* technically educated. If you are a sales or marketing person with a technical background, you will qualify as an author as long as you refrain from writing "brochure copy" or "marketing hype." If you have doubts about your acceptability as an author, please discuss your qualifications with me so I can make the decision.

**Article length:** We publish articles that are relatively short with few wasted words—because who has time to read pages-long articles these days? However, if you are writing about a complex subject and have a great deal of *essential* detail to include, it's OK to write longer. Just remember to ruthlessly weed out unnecessarily long sentences and extraneous words. Our preferred length is 1500–2000 words. With a couple of illustrations, this will fill or come close to filling two printed pages.

**Writing style:** Many technical professionals have been taught they should never use the first person when writing an article. However, when you are describing your own direct experience, it is incontrovertibly more appropriate to say "I did such-and-such" or "We decided to" than it is to say "It was done" or "It was decided." I encourage you to abandon that old-fashioned style in favor of one that is more readable. Remember, when you're writing for TEST, you're talking engineer-to-engineer.

In addition, while you can certainly overdo the short-sentence thing, opt for the sim-

ple, short, and direct wherever possible. It's OK to use five-dollar words sometimes, and especially when no other word expresses your meaning. But if a simple word will express something just as well, use it instead of a more complicated one. For instance, *utilize* means exactly the same thing as *use*, so why not use *use* instead?

We have several minor-item but firmly held editorial preferences: one, for the clarity of using a comma before the *and* in a series; two, for unisex or alternating-sex language; and three, for the use of the word *that* in many places where folks commonly (and mistakenly) use *which*. We encourage you to write your article this way, but if *you* don't we will usually add a comma if the series would otherwise be ambiguous; change *he* to *s/he* and *his* to *his/her*, etc.; and change *which* to *that* as appropriate. (A general rule of thumb is that you usually use *which* after a comma; if there's no comma, you usually use *that*.)

*Gunning's Ten Principles of Clear Statement* is attached. If you follow these guidelines, it's hard to go wrong. Whether technical or any other kind, good writing is good writing. Even if you know you'll never be a great writer, if you strive to write straightforwardly, you will succeed in *communicating* well. And that's the correct goal in writing articles for TEST.

**Feedback and deadlines:** Once we've agreed that you'll write an article for a specific issue, I'll give you a deadline. If you're not sure you're on the right track, FAX or e-mail me a first/rough draft for feedback. Do this as early as you can. I'll be happy to review and comment on it, but it's better to do it while there's still plenty of time.

#### **Materials:**

**FIRST, check page 4 for acceptable file formats, dpi, and methods of sending files.**

**PDF of article and illustrations together:** The purpose of this is to provide the equivalent of a printed paper for both you and us. The layout doesn't have to be fancy, since (unlike papers prepared for Proceedings, for instance) we will prepare your article in TEST's style of presentation. But this file *does* need to be complete—all text, illustrations, captions, references, author bio, etc. In our current all-digital world, PDFs are ideal! Be *sure* to embed all type, since it is **this** file we will use to check accuracy—of your words **and** all your technical and/or mathematical symbols. Such symbols don't always pass accurately system-to-system; PDFs, though not perfect, do this best.

**Text:** In addition, we need just your text in the simplest possible file type—a Word or SimpleText document is fine. We can accept text on a disk, CD, or e-mailed in a variety of file types (see page 4).

**Illustrations:** We can accept line art and photographs on a disk, CD, or as e-mailed files in several formats (see page 4). However you give us your art, remember the result needs to be clear black-and-white drawings and photos and/or *high-contrast* color.

**Biography and photo:** Include a recent photo of yourself and brief biographical data: why you're qualified to be writing this article; a bit of your work history; your education; and any particularly noteworthy achievements, such as a patent you hold, a book you've published, or a prestigious award you've won. If you have someone take a casual photo, be sure you're standing in front of a *plain* surface (like a blank wall) so you don't look as if something odd is growing out of your ear! Aiming light at face level from *both* sides helps reduce head-distorting shadows. File needs for items above and on page 4 apply here too.

—**Eve Mattingley-Hannigan**  
**Editor and Publisher**

# ***Gunning's Ten Principles of Clear Statement***

## ***1. Keep sentences short on the average.***

Sentences should vary in length and structure, but the average should be short—15 to 20 words is best.

## ***2. Prefer the simple to the complex.***

Many complex terms are unnecessary; when there is a simpler way to say a thing, use it. Avoid complicated sentences.

## ***3. Prefer the familiar word but develop your vocabulary.***

Write complex ideas in the clearest, simplest words you can. But do not limit your vocabulary; you need all the words you can master. Precise words give exact meaning.

## ***4. Avoid unneeded words.***

Nothing weakens writing more than extra words that don't convey meaning. Make every word carry its own weight.

## ***5. Put action in your verbs.***

The heaviness in most trade publication writing comes from overworking the passive verb form. Active verbs bring writing to life. ["I/We conducted the test" rather than "The test was conducted"]

## ***6. Write as you talk.***

The best written communications have a conversational sound—the "sound of a human voice."

## ***7. Use terms your reader can picture.***

Abstract words make writing dull and flabby. Use short, concrete words your reader can visualize.

## ***8. Tie in with your reader's experience.***

The reader won't accept your new idea unless you can link it with an old idea he [or she] already has. Build up a case starting with what the reader knows and believes.

## ***9. Make full use of variety in your writing.***

The style of your writing will grow as you gain experience. If you write in a childish, choppy way, you will fail to write clearly and understandably. Try to vary the length and structure of your sentences as you are writing.

## ***10. Write to EXpress, not to IMpress.***

The bane of most writing in government, business, and the professions is a tendency to show off a large vocabulary and write in needlessly complex terms. Writers who make the best impression are those who say complex things in simple ways.

Our current capabilities allow us to accept computer text and graphics files in a wide variety of formats from PC or Mac systems. We produce TEST magazine using a Mac running OS-X 10.6.8).

**Compatibility**—that is, the ability for our system and its programs to “translate” from your system and its programs—can be a real issue, especially with regard to symbols and other elements you may create on your computer using keystroke combinations specific to your program. Therefore, we **MUST** also have a “hard copy” of what you are submitting; a PDF will usually do.

**PLEASE NOTE:** If you’re working in Word, your embedded illustrations will show in the file you send us but **MAY** not be accessible to us! **Best choice:** send them as separate digital files. Send high-resolution TIFF or JPEG files. Yes, if need be, we can still scan in our own files from your printed originals.

**We will need:** (1) a PDF showing *all* elements of your article—text, illustrations, captions, author bio, author photo; (2) an uncomplicated, largely unformatted text-only file (Word doc or in SimpleText, for instance); (3) illustrations as TIFFs or JPEGs, at a high resolution (see last two paragraphs, below); (4) captions for all illustrations, numbered and correctly tied into the text; (5) short author biography; (6) head-and-shoulders author photo if at all possible; (7) **complete** contact information, including snail-mail; (8) your full, formal job title/company, for your byline.

E-mail your text, PDF, and/or graphics file(s) to [eve@testmagazine.biz](mailto:eve@testmagazine.biz). Our DSL line makes receiving fast, but we still find that attaching multiple files to a single e-mail *can* cause problems. Your best bet is to attach only one or two files to an e-mail, identifying what you’re sending in the cover message—doing it this way sharply increases the likelihood that everything will arrive in good order. Your e-mail cover messages can be short and sweet: “Eve, here’s Figure 1,” etc. If you would prefer, send a CD. **Please label your disk clearly.**

Remember that we will import your text file and then apply our *own* type styles and formatting to it; this is not the same situation as, say, a Proceedings, where what’s published is dependent upon your *own* layout and formatting. It is your **words** we need to receive accurately—not your layout. Your layout and intentions about subheads, indents, bulleted items, etc., only need to show in the hard copy you send—whether that’s a printout you mail or FAX, or a PDF you e-mail.

**Graphics files** will ultimately look best when they are in print if you send TIFF files, which contain more detailed pixel information than JPEGs, but JPEG files are acceptable. GIF, BMP, Illustrator, EPS files are also all acceptable, but we **strongly** prefer TIFFs. We do our primary work on illustrations using Photoshop CS5.

**For photographs, resolution will need to be 300 dpi; for line illustrations, 1200 dpi.** Lower rez at correspondingly larger physical size is OK—for example, a 300 dpi photo that will be three inches wide in print can arrive as a 150 dpi digital file with a physical width of six inches. Call or e-mail *first* if you have any questions.

# Writing technical articles: approach, methods, benefits

**I**n my role as editor of TEST magazine, a tremendous number of technical articles have crossed my desk. Some have been simply terrific, right from the outset—well-written, faultlessly organized, clearly exposing a hands-on solution to a knotty testing problem or laying out a philosophical approach in an area that bears deeper thought. Others have been obscurely written, requiring enormous expenditures of editorial effort, and have only been used in TEST because the *essence* of the idea made the candle worth the game. Many—probably most—have fallen somewhere in between.

TEST's articles come about in many ways. Sometimes a conversation I have with someone sparks an idea, and I go seeking a person with testing expertise who is similarly inspired by the idea to write about it. Sometimes I'm approached by someone with an idea or a hot topic who wants to know if TEST would be interested in such a piece. Sometimes I'm presented with a *fait accompli*—an already written article the author considers complete in every way. But regardless of how the process begins, there consistently seems to be the need for discussion and guidance.

Through the years I've developed a way of discussing articles at *all* stages of their development that seems useful to authors with whom I work—particularly those who haven't done much writing yet, and for whom I am mainly writing this article. I thought I'd share the basics of that process with you. Perhaps it will lever you reluctant writers with interesting testing stories to tell into committing them to paper and achieving publication. Perhaps it will help those of you who are unsure of your ground to know in detail how to approach at least *one* magazine editor. And perhaps you can use what I have to say about writing articles for TEST as a springboard toward writing articles in other areas of your professional expertise for other appropriate venues.

## Who are you writing for?

First, let's take a look at what a technical publication is. The way I view TEST is as a forum for the exchange of ideas and information among testing professionals. In a sense, it's like a technical society meeting...but in print. I don't edit TEST from a single point of view; I think it should be a place where vigorous discussion can take place on all—or at least many—sides of the same issue, including sides I *personally* may not agree with.

Most magazines have a statement of editorial purpose that describes their goal, their purpose in life, what types of people they wish to reach, and what categories of information they wish to disseminate. This is a useful item to ask for if you're trying to decide what magazine would be the best

By **EVE MATTINGLEY-HANNIGAN**  
*Editor and Publisher*  
**TEST Engineering & Management**  
*Oakland, California*

place to publish your technical article idea.

Some technical magazines have some—and sometimes many—"staff-generated" articles. Others, like TEST, have very few. If you feel you have a good idea but simply can't write for beans, perhaps you should approach an appropriate publication for your subject matter from among those with many staff-generated articles; if the editor likes your story, s/he might assign a staff writer to tell it for you based on your technical input.

On the other hand, simple expository writing is often a matter of telling *yourself* the story and writing down what you say. If people around you understand what you're talking about when you describe what you want to write about, then you *do* have the ability to write it on paper. Remember, there's no need in a technical article for the author to be anything more than simple and direct. Eloquence is not at issue here!

## What to write about

When I approach potential authors who have expertise in the general topic that's to be the focus for a specific issue of TEST—but I have no specific article ideas in mind—here's what I'm looking for: an innovative new approach to a common testing situation; a description of an unusual testing situation; the solution to a difficult testing problem; a philosophical discussion of issues, standards, progress, etc., in that area of testing.

In TEST, we have a strong editorial leaning towards the hands-on type of article. I encourage authors to write, and prefer to publish, short articles. My editorial theory is that everyone is simply too busy these days to read pages and pages—that, in fact, readers may start but never finish an article that's too long.

Philosophical discussions are great, too, but nearly everyone who reads TEST actually *conducts* testing. We regularly get feedback from readers that magazines where they publish lengthy articles go largely unread, while TEST gets read immediately, cover to cover. One reader went so far as to tell me that in *his* automotive test lab, they tear out TEST's articles and tape them up beside specific test setups because **1)** each is short and to-the-point, and **2)** each offers practical, hands-on advice he and his co-workers can use *right now* on the very tests they are conducting *today*.

So I suggest you think about what *you* would find useful to read about, and use that as a general guide. For instance, as a test engineer, you may have worked out a shortcut to conducting a particular kind of

test, one that you think answers all the questions usually posed, but takes less time than the standard method. You're excited by your new test process and want to share your idea with your peers to see if they validate or disagree.

Another item that may help you make some of your article decisions is the editorial calendar. Most magazines have them for upcoming issues or by the calendar year. Each issue is designated for a particular editorial focus, and this could help *you* focus in on a target completion date, or perhaps to see that another magazine might be a better choice for this particular article idea.

## Querying

Start by synopsisizing or outlining your idea. If you're describing a test or a series of tests you've already performed, you already have the technical data to flesh out the outline. If this is an idea or a concept you want to present philosophically, you might want to be a little more detailed about your *ideas* or your *opinions* in your synopsis or outline.

Next—if you haven't already decided on one or several—think about what magazine you yourself would like to read this article in. Start with the one where you'd most like to read your own article, and query the editor. Call, FAX, e-mail, or check the website to see how that particular editor wishes to be queried. I myself really prefer a phone conversation, but am often too busy to start that way. So for me, the next best query method is to FAX or mail your outline or synopsis. E-mails carry few of the visual and verbal clues inherent to letters or conversations, and so are a poor query option to me. In all cases, though, be sure to include *all* your contact information.

I strongly suggest you don't "broadcast" your query in a widespread and unfocused way. For one thing, there are ethics involved: if one of the magazines you're least interested in accepts first, you are ethically obligated to give that magazine your article, even if your first-choice magazine accepts later. For another, in my experience, most publications greatly prefer to publish on an exclusive basis, and may not be willing to deal with you another time if you offer a piece too widely. This is particularly true if you fail to say you've offered your idea to several publications at the same time, in which case an editor contacting you to accept may be quite disgruntled to find you're already lined up to publish in another magazine!

Also, be patient. Editors—like many testing professionals!—are usually over-worked. (I myself refer to the always-running-late factor as "The Editor's Disease," or the "White Rabbit Syndrome.") A second query after what seems to you like a reasonable amount of time might not be a bad idea.

On the other hand, don't get carried away; bugging the editor probably won't get you anywhere, either. And remember, the editor may have already mentally slotted your idea for an issue down the line, but be under the gun from deadlines for a current issue.

### Writing style

Okay. Let's suppose your article proposal has been accepted. Now it's time to start writing. Here, I go against the mainstream in how I think you should write technical material. I know it's common to teach college students in technical fields to write in what I call the "non-specific third person"—for instance, to say "It was done" rather than "I/we did this."

However, it is my opinion that when you are describing work you yourself have done, the ideas and results are *much* more strongly exposed when you say that you did them than that "they were done." I fail to see how anyone reading an article can benefit more from *not* knowing who did the work than from knowing it. I believe this teaching is a misguided attempt at objectivity...but objectivity is important only in *how* you did the work, conducted the test, etc. It has nothing to do with *who* did the work or conducted the test.

Other than that, write simply. If only a \$5 word expresses what you need to say, by all means use it, but if a shorter, simpler word will do, use it. Use a "voice" not unlike your speaking voice; if necessary, conjure up a real or imagined co-worker to whom you describe what you're writing about, writing it down as you speak it out loud or in your head.

Take your time. Write one segment at a time. Sleep on what you've written and read it again when you're fresh. Read what you've written in another place—at home, for instance, if you've written it at work, or vice versa. Wait to make revisions or do re-write until enough time has passed so you can read what you wrote as if someone else had written it.

Don't worry about fully organizing the article until after you've said what you need to about each segment in your synopsis or outline. You may find you have more to say—or less—than you originally thought. Other aspects you hadn't considered at the outset may demand that you write them; honor that. Once you're "written out" and have gone through the revision process, once you feel sure you've clearly and succinctly said all you need to say, *then* look at the overall structure of the article. At *that* point you may see that the sequence should be different from how you originally envisioned it.

It's also perfectly all right to start in the middle, especially if that's where your strongest, most confident connection to the information is. The conclusion can arise out of the technical heart of the article, and your introductory paragraphs are almost always best-written and most to the point if you write them last...strange, but true!

If you're unsure of yourself as a writer, I suggest you "throw yourself on the mercy" of the editor. Though it sometimes takes me awhile to do it, I commonly give new writers detailed feedback, both about the language itself and about further ways to flesh out ideas. Editors are used to spotting words that slide off the point, and will question such words when they find them in your

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7. **Use terms your reader can picture.**
8. **Tie in with your reader's experience.**
9. **Make full use of variety in your writing.**
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Adapted from "How to Take the Fog out of Writing," by Robert Gunning and Douglas Mueller, © 1985, Gunning-Mueller Clear Writing Institute, Inc., Santa Barbara, CA.

draft; your finished text will be greatly strengthened by this kind of feedback.

Just a few words here about "dangling superlatives." These are words of comparison that the writer uses without including the point of reference. For instance, if you say *apples are better for your digestion than plums*, you've made a statement. Others may not agree, but it's still a complete thought. On the other hand, if you say instead *apples are better for your digestion*, you haven't said a thing. The reader is left with the question "better for your digestion than...what???" So *think* about what you mean, and then say it.

Also, if you don't know the right word for something, describe it—don't instead choose a meaningless word. It is currently in vogue to use the word "solution" to mean anything from software to a mechanical device to a method. Sometimes the real meaning of the item being described is buried so far under words like "solution" I literally don't have any idea what the product is! So I say again, *think* about what you mean, and if you can't think of a succinct word or phrase that says what you mean, *describe* what you mean.

### Illustrations

Illustrations almost invariably strengthen an article. It may take paragraphs to describe something the viewer's brain can assimilate from an illustration in one swift moment. So if you're excited about a test you're conducting and think you might want to write about it, consider taking photographs of the setup, capturing screen shots, and otherwise keeping track of illustration possibilities. Do this even if you're not sure of your results yet, or of your commitment to write about it.

Assuming you have decided to write an article, it's also a wise idea to see how the particular magazine you want to publish in prints illustrations. Some use full color, others only black and white, still others a mix of the two. Once you have idea acceptance, discuss right at the outset how that particular editor at that specific magazine will want illustrations. Desktop publishing has opened up more methods for handling art than there are fish in the sea, but be assured each magazine *will* have preferences *and* definitely will-not-accepts.

### Compatibility and e-mail

The world of computers and electronic text and illustration files has much to recommend it. E-mails are quick and cheap, text in an electronic file doesn't have to be entered and typeset, and so forth. However—and this is a BIG "however"—this is true *only* if computer systems, computer pro-


grams, program versions, and file formats are compatible. In the absence of compatibility, electronic files are nothing but trouble. Illustrations may look good on a computer monitor, but be at a resolution completely inadequate for clarity in *print*. E-mail has visual and formatting limitations that are often deeply undermining to print publication style.

At the heart of the problem is communication. You and the publication you are dealing with need to have *prior* communication about *what* programs and versions, about *what* computer system is in use on each end, about *what* format to choose, about *what* level of resolution is adequate. By "prior," I mean *before you send the files!* There are universal formats that cross most of those potential compatibility barriers, but you need to ask about and/or listen to what the editor needs! Otherwise, you're doing something that's quick and inexpensive on your end, but are passing along untold headaches to the person on the receiving end.

In this world of technical articles, it's worth pointing out that mathematical symbols are created using different commands in different programs, so even if your basic text will pass the compatibility barrier as long as it's in a universal format, symbols may not. So remember a hard copy is *still* a necessity.

### Benefits

Well, what will all this get you? Aside from personal satisfaction, getting published carries a certain amount of prestige, your ideas will get disseminated to your peers, and if you're as creative as you hope you are, you will in time gain a reputation for technical excellence in your area.

In addition, the sharing of technical expertise, innovation, techniques, and methods will enliven *all* professionals in your area of expertise. You might persuade your company to give you some writing time on that basis alone. Shared information is not just  $2+2=4$ ; it's more like  $2+2=5$ , or 6, or more. Because ideas bounce around, stimulate more/further/deeper thought in others, and the total is almost always greater than the sum of its parts. 

**NOTE:** This article was written in 2001. In the 11 years since then, computer systems compatibility has become far more fluid; e-mail expertise has become commonplace; and the process of providing materials digitally is much more universally understood. However, it is still wise to consider—and have clear communication with your editor on—those subjects.