

DESIGN NOTES

Where Have the Spaces Gone?

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There is a growing trend in technical writing to eliminate the spaces between numbers and units, e.g., 3cm rather than 3 cm, or 6dB rather than 6 dB. Personally, I think this style invites confusion and I am not in favor of its use. Consider the term 421lb. Is it 421 pounds or 4211 bits? The difference between the numeral “1” and lower case letter “l” is very subtle in most printed fonts.

Besides this admittedly rare circumstance, I think clarity is improved when the quantity is separated from the units. If they are run together on the page, our eyes and brains need to separate them to derive the meaning.

I did some research to find out more...

Published Guidelines: General Writing

The most-often referenced guide to writing style in the English language is *The Chicago Manual of Style* from the University of Chicago. *The Associated Press Stylebook* is also referenced regularly, as are major dictionaries, some of which include extensive usage guidelines. *The Elements of Style* by Strunk and White and *On Writing Well* by Zinsser are classics that all technical writers should own, but are oriented more to the organization of ideas and flow of words rather than the presentation of technical parameters.

None of these general references recommends the use of numbers and units without a space. Some do not address the issue directly, but all their examples show numbers and units with an intervening space.

Published Guidelines: Technical Writing

Common references for technical material include the *Publication Manual of the American Psychological Association*, *AIP Style Manual* (American Institute of Physics), and the *IEEE Editorial Style Manual*. There are many other authors' guideline documents prepared by various professional engineering and scientific organizations. Most appear to be based on one or more of the manuals already noted.

Another useful document is the *Guide for the Use of the International System of Units (SI)* from the National Institute of Science and Technology (NIST). The *IAEA Style Manual for Publications and Documents in English* from the International Atomic Energy Agency is another good reference. Despite its lengthy title, *The Journal of the Royal Astronomical Society of Canada Style Guide for Authors* is one of the better concise guides I discovered during my information search.

As with the general style guides, none of these technical references recommends writing numbers and units without a space. I was unable to find any reference recommending the practice, although I did find various comments, including the recommendation of a “non-breaking space” between the number and units, drawn from the practice of pre-computer typesetting.

I assume that the “spaceless” practice originated for some reason. Perhaps someone reading this can provide a pertinent reference.

Other Style Notes

There is ongoing discussion of the proper way to present other technical information, and we continue to watch trends in usage. As an example, for twenty years or so, the preferred scientific presentation of large numbers includes spaces at the three-digit intervals for thousands, millions, etc. Thus, one million with familiar commas (in the U.S.) — 1,000,000 — would become 1 000 000. Since this spaced format is rare in everyday English, we will continue to use commas in the text of our magazine (except for four-digit numbers), but we may use the spaced notation in the labels of graphs and charts, and in tables of data.

Another item that has variation in usage is temperature with the degree symbol. Format options include: 25°C, 25° C and 25 °C. Style guides generally recommend either the first or third of these examples.

There are also many variations for “S parameters” involving capitalization, italics, hyphenation, and subscripting. With no clear consensus, we have chosen to use the form above, along with subscripts, e.g., S_{11} .

Books (Available from Major Booksellers)

The Chicago Manual of Style
The Associated Press Stylebook
The Elements of Style
On Writing Well
Publication Manual of the American Psychological Association

Online Documents

AIP Style Manual — http://www.aip.org/pubservs/style/4thed/AIP_Style_4thed.pdf
Guide for the Use of the International System of Units (SI), NIST Special Publication 811 — <http://www.physics.nist.gov/cuu/pdf/sp811.pdf>
IAEA Style Manual for Publications and Documents in English — http://www-pub.iaea.org/MTCD/publications/PDF/IAEA_StyleManual_06.pdf
The Journal of the Royal Astronomical Society of Canada Style Guide for Authors — <http://www.rasc.ca/journal/guide.htm>