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The EODG Style Guide

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Preface

> A scientific experiment is not complete until the results have been published. Therefore, to do science, one must also write science. Realising this, scientists should weigh the words in their manuscripts as carefully as they weigh the reagents in their laboratories.
>
> Robert A. Day (1989)

Scientist take great care when designing an experiment or developing computer code to avoid inconsistencies in detail. Often the same result could have been obtained from a ill structured code or bodged apparatus. The same is true of a piece of technical writing. The reader can make sense of a poorly punctuated sentence or get the idea from a poorly scaled plot. However good writing like good science demonstrates a clarity of thought and expression that aids the flow of knowledge.

In bothering about the detail in writing a scientist demonstrates a level of accuracy that reflects on his or her efforts in conducting the scientific work itself. Some warnings ensue. Often one person's detail is another's pedantic point. While there is no absolute definition of what is correct, this doesn't mean there is no need for rules. These rules may be modified by an author. However if this is done it must be done consistently. An obvious example is in the use of units for a quantity. It would be unhelpful to the reader if the author vacillated between mks and imperial units in a text.

The purpose of this guide is to provide a ready reference for making consistent choices when constructing a document. Making these choices once allows the writer to concentrate on the substance of the work rather than the flummery. Of course any style guide is exactly that *a guide*. In making choices I have mostly followed

University Press, *The Chicago Manual of Style*, University of Chicago Press, 2010,

R.M. Ritter, *The Oxford Style Manual*, Oxford University Press, 2003,

New Zealand Government Printing Office, *Style Book*, Government Printer, 1981.

One of the reasons I have prepared this guide is because these sources are not always definitive, especially for highly technical writing. Another reason is that these sources occasionally disagree so that a choice has to be made between different recommended styles. In making a choice the three principals I have applied are; to maximise clarity, to be consistent and to follow common-sense. The following

sections (currently a work in progress) describe my style preferences when preparing written work.

Contents

1

Writing Style

Narrative Point of View

1.1. Technical writing is impersonal. Never use the first person (’I’ or ’we’).

Word Usage

1.2. Scientific writing should be precise and unambiguous. Good writing is concise. A sentence should contain no unnecessary words, a paragraph no unnecessary sentences.

Cross-referencing

1.3. Generally cross-referencing is used to locate for the reader an idea that has been discussed earlier. Forward referencing is not helpful to the reader and is to be avoided (unless you want the reader to skip ahead in the manuscript and so miss pages of your hard-won text!)

2

Punctuation

Parentheses

2.1. Parentheses enclose remarks not intended to be part of the main statement.

2.2. Parentheses should never be nested. Use a comma to separate remarks within parentheses.

2.3.

Capitals are used for

2.4. Names of people

Fourier transform Gaussian surface

Capitals are not used for

2.5. Names of parts of a book

section 4 chapter 3 figure 2 table 1

3

Spelling and Grammar

Spelling

3.1. Use English spelling.

4

Acronyms & Abbreviations

4.1. An abbreviation is a shortened form of a word. It is different from an acronym which is usually produced from the initial letters of words e.g. lidar from light detection and ranging. An abbreviation also has to be distinguished from a symbol e.g. using + for plus and from contraptions where letters are omitted e.g. fo'csle.

4.2. Avoid beginning a sentence with an abbreviation or acronym

4.3. The full point is usually used after abbreviations but not for:

- an abbreviation for the name of a unit of measurement (cm not cm.).
- Mr, Mrs, Messrs, Dr, Mt, Pt, St
- initial letters used instead of names of national and international bodies e.g.
- the abbreviated names of the days of the week

Points of the Compass

4.4. Compass directions are abbreviated using capital letters set closed together.

N S E W NE SSE

Names of Geographic Features

4.5. The two typical geographic abbreviations are: Mt for Mount and Pt for Point.

Names of Cities and Towns

4.6. Names of cities and towns spelt out.

Names of Months and Days of the Week

4.7. In the test the names of months and of days of the week should be spelt out. In tables and in footnotes the abbreviated forms may be used (without the full point).

Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec; Mon, Tue, Wed, Thu, Fri, Sat, Sun.

4.8. An acronym is an abbreviation formed from letters in a phrase.

Defining

An acronym must be defined the first time it is used in the text and not subsequently.

Intergovernmental Panel on Climate Change (IPCC)
not
IPCC (Intergovernmental Panel on Climate Change)

Forms

The two principal forms of acronym are:

- those that are pronounced as a word,

  NATO

  At some point this type of acronym metamorphoses into a standard word (e.g. radar) and no longer needs defining.

- those that are pronounced as letters. Note that a period can be used to indicate missing letters.

  G.B.

  However this rule is not strictly adhered to so we have

  WMO

5

Numbers & Units

Numbers

Decimals

5.1. For decimals less than one use a leading zero.

0.27 not .27

Figures or Words

5.2. Generally spell out numbers below ten.

5.3. Use figures with all abbreviated forms of units.

5.4. Never start a sentence with a figure. To avoid spelling out large numbers at the start of a sentence, recast the sentence.

Ranges

5.5. For a span of numbers use an en rule, eliding to the fewest number of figures possible.

30–1 132–6

Do not elide numbers in the group 10 to 19.

13–16 1213–18

Units

5.6. Any value in the text has an associated unit it must be given.

Spacing

5.7. Use a full space between a value and the unit. Separate components of the unit with a thin space.

9.87 m s^{-1} (`9.87\m\,s$^{-1}$`)

Temperature

5.8. The degree symbol is printed close up to the scale abbreviation when given.

15 °C

5.9. In non-technical writing the scale is sometimes omitted in which case the degree symbol is printed close up to the number.

15°

5.10. Values in Kelvin do not include a degree sign.

27 K not 27 °K

Latitude and Longitude

5.11. The degree, minute and second symbols are printed close up to the number.

36° N 155° 13’ 10” W

Solidus

5.12. Do not use a solidus to indicate ’per’.

9.87 m s^{-1} not 9.87 m/s

6

Mathematics

Mathematical Conventions

6.1 The following mathematical conventions are recommended.

- Scaler variables are given in italic lower-case type.
- Scaler constants are given in italic upper-case type.
- Vectors are given in bold type using lower case symbols except where they represent fields in which case they are capitalised. The magnitude of a vector uses the same symbol but in italic type.
- Matrices are given in bold upper-case type.

6.2. Avoid beginning a sentence with an symbol.

7

Tables and Figures

General

Captions

7.1 The caption should provide a general description of a figure or table. Interpretation of the figure or table should be given in the text, not the caption.

Fount

7.2 The size and style of the principal text within a figure or table should be the same as the body text.

Rotated Tables and Figures

7.3 If a figure or table is set at 90 to the main text it must be rotated anti-clockwise.

Figures

Axes

7.4 The range of an axis should be chosen to cover the range of values plotted or an extended range to ensure the first and final tick marks lie on rounded values. However do not extend the range to non-sensible values. For example, a function of latitude (assuming values occur over the whole range) should be plotted from -90 to 90 not -100 to 100.