IET Guide for Authors

This IET Guide for Authors explains how to write and deliver text for publication. It shows how you can help us to produce a high quality published work, in the shortest time, and as economically as possible.

CONTENTS

1. General Writing Style
2. Reference List and Further Reading
3. Delivering your Manuscript
4. Detailed Style Guide
5. Digital Images Guide

1. General Writing style

- This covers the key general points. Further details can be found in the Detailed Style Guide, section 4, below
- Please consider the audience you are writing for. Technical terminology and acronyms should be explained if specific to a particular audience or industry. Give acronyms in full at first mention. Consider the use of a Glossary
- Headings. Use differing, but consistent styles of type to denote different heading levels. Avoid using more than four levels: Chapter Title, main section heading (A) and then two subheadings (B and C).
- Special text sections. Clearly mark any pieces of text that should be distinguished typographically from the main text, such as lists, quotations and panels/boxes. Any panels/boxes should be numbered and cross-referenced in the same way as figures, tables or equations.
- Tables:
  - Tables should be numbered and, where possible, laid out as part of the main text. If necessary (if unduly large, etc.) they can be supplied as separate copy and should be placed
after the last page of the appropriate chapter, clearly labelled with their location in the text - section /line number, etc. as well as a their Table number. Mark the text “TABLE 2.4 ABOUT HERE”. Please provide Table captions either in the text – or as a separate list

• Present tables clearly, with any decimal points vertically aligned. Avoid using vertical lines between columns. Horizontal lines are acceptable.

• Give the title at the head of the table, with the source and footnotes (if appropriate) placed immediately below the table.

• Number tables consecutively within each chapter of the book, i.e. 1.1, 1.2, 1.3, etc.

• References to tables in the main text should refer to the table number. Do not use phrases such as ‘see table on page 5’ or ‘see table above/below’.

• Note that any table not compiled by the author may require permission for use.

• **Figures - Line Illustrations & Photographs:**

  • Also refer to *Manuscript Delivery, section 3, and Digital Images Guide, section 5, below.*

  • Figures should be supplied separately after the last page of the chapter concerned – as well as in separate files.

  • Text within figures should be at least 7 points

  • Illustrations supplied should be clearly labelled with their text location - section /line number, etc. - as well as their figure number. Please supply figure captions either in the text or as separate list.

  • Mark the text “Figure 2.4 ABOUT HERE”. Please provide Figure captions either in the text – or as a separate list

• **Style and Spelling:**

  • Also refer to detailed Style Guide, section 4, below.

  • **Use UK Spelling:** Use the ‘s’ rule in spelling, e.g. ‘isation’ and ‘ising’ rather than ‘ization’ and ‘izing’.

  • Use *single quotation marks* with the following exception: double quotation marks for quotes within quotes, single quotation marks for quotes within quotes within quotes.


  • **Numbers** one to ten should be expressed in words, with 11 upwards appearing as numerals, unless used in general terms, e.g. one hundred times, about one hundred people (but a total of 1400 electricians). Numerals should be used to express ages, dates and time. Numbers followed by SI units should always appear as numerals, separated by a fine space where
practically applicable. The fine space should also be used to separate numbers of four digits or more, rather than a comma.

- **SI (Système International) units** should be used and where units are abbreviated the correct SI unit symbols should be used.

- In text, use **per cent**, with the preceding number appearing as a numeral, e.g. 28 per cent. In tables, use the % symbol.

- Avoid over use of italicised emphasis, text in brackets and parenthetic text – like this – which can interrupt the clear flow of your text.

2. **Reference list and Further Reading**

- Only include references actually cited in the text in the Reference List. Include all references cited in the text.

- A list of Further Reading – references to material not cited in the text - may also be included.

- IET uses the Vancouver (numerical) system for references. You should number your references sequentially through the text, as below:
  
  o ‘…as demonstrated in Reference 10.’
  o ‘…evolved during the 19th century [4], a century…’
  o ‘…as stated by Hodgson [7].’

- In the Reference List
  
  o The full references should be listed in numerical order at the end of the chapter/book/article. There should not be a full point after the reference number.
  
  o All authors of each work should be listed, up to a maximum of six. If there are more than six authors only the first six should appear, followed by *et al*.
  
  o IET prefers journal names in full – if you abbreviate, use a commonly accepted form and be consistent
  
  o Essay and article titles are usually roman in quotes; book, journal and newspaper titles should be italic.
  
  o Book references should include the author(s)/editor(s) name(s), book title, publisher name, publisher location, publication year, and page range (if appropriate).
  
  o Journal references should include the author(s) name(s), article title, journal title, publication year, volume no., issue no., and page range.
  
  o Conference paper references should include author(s) name(s), article title, conference title, conference location, conference year, and page range.
The examples below show the preferred style options for presenting references; note the use of italic, quotes and methods of abbreviation. Please follow these as closely as possible; making sure the style of references is consistent throughout your book. We understand that some reference may just be non-standard and so break the rules.

Please see the National Library of Medicine and IEEE websites for further examples.

Example References

Books – you may use either the style (Publisher) or without parentheses – but please be consistent

Book by a single author

Book that is part of a series
4  Valdar A. *Understanding Telecommunications Networks*. Telecommunications Series, no. 52 (London, IET, 2006)

Book where author organization is also publisher

Book by multiple authors

Book that is edited

Book where volumes published on different dates

Book where volumes published on same date

Article in an edited book

Article in a journal
OR – if using abbreviated journal names

Published conference paper
3. Delivering your Manuscript

The material you deliver to us should be considered final and complete. Please ensure that you are absolutely satisfied with your material before final delivery.

You should provide:

- **Electronic files** (text, figures, tables, and figure and table captions) **delivered** by email, on labelled CDs or memory stick, or by file transfer using one of the many free FTP providers (YouSendIt, etc.)
  - Separate, properly named, files for each chapter text, and figure, will facilitate handling.

- **Artwork**:
  - **Please Supply**
    - **Figures** as separate files, making sure they are clearly named, their location is clearly indicated in the text and that each figure has a caption.
    - **Electronic versions of halftones** (photographs or illustrations containing many shades of grey) as high resolution (300ppi at W120 x H80 mm or W80 x H120 mm) tiff, eps or jpeg files. We cannot use versions embedded in Word documents. If electronic files aren’t available, original photographs can be scanned.
• **Line drawings** (consisting of black lines, shading and solid areas only) as high resolution (300ppi) eps, tiff or jpeg files, or as PowerPoint, Word or PDF files if no other format is available. If electronic files aren’t available, illustrations can be redrawn from hard copy.

• **Permissions**: Authors should, where necessary, obtain permission to use figures and provide copies of any relevant correspondence.

• **Index**: The IET will generally prepare the Index for your book unless you have previously agreed to do it yourself. Please let us know if you have any special index requests or requirements.

**Remember to keep a complete copy of your manuscript and all other material that you deliver to the IET.**

We cannot be responsible for the safe keeping of materials supplied or in the hands of our suppliers. If any of the above required items aren’t supplied, we reserve the right to reject the manuscript and request it be resubmitted only when complete.

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**4. Detailed Style Guide**

*These are the instructions used by the IET copyeditors and proof-readers. They may be too detailed for easy digestion – but will serve as a reference to any uncertainties that you may encounter regarding house style.*

*The closer you can follow them the better – but they are not an IET requirement for Author manuscript preparation.*

*In many cases, if your manuscript differs but is consistent – a copyeditor will leave it as you have supplied.*

**Abbreviations**

- Avoid unnecessary abbreviations and see that any unfamiliar ones are explained at their first occurrence.

**Full points**

- Abbreviations (where the end of the word is cut) have full a full point after. For example, ed., eds., vol., approx., etc.
- Omit full point after contractions (where the middle of the word has been cut, but the last letter retained). For example, Dr, Mr, edn, Ltd - but note no. and nos. For ‘number’ and ‘numbers’
- The fact that a plural abbreviation, such as vols. for volumes, includes the last letter of the plural from does not make it a contraction.
- Also omit full points after metric units, e.g. - cm, m, km, kg. Note that the plural of abbreviated units is the same as the singular.
Sets of initials
- Abbreviations consisting of initials should usually have a point after each initial or no points at all.
- Avoid the use of an apostrophe in the plural: NCOs is better than NCO’s.
- Do not use full points in upper-case sets of initials, for example, USA, NATO etc.

Individual abbreviations
- & – use ‘and’ except in names of firms, statute references and where the author is using & to make a distinction.
- c., ca, approx. – use one of these consistently. c. is preferable to ca; both are usually italic.
- cf. – roman with full point; make sure it is used to mean ‘compare’ rather than ‘see’.
- cont. – (continued) - full point at end.
- e.g., etc., i.e. – set in roman. Change to the longer, English version if more appropriate, e.g. at the start of a sentence. It is not necessary to change all occurrences to English. Be consistent in the use (or omission) of commas before and after these abbreviations.
- et al. – italic with full point at end.
- incl., excl. – (including, excluding) full point at end.
- a.c., d.c. or AC, DC – either lower case with full points or upper case without full points (at the author’s discretion).
- csa – (cross-sectional area) lower case, no full points.
- PLC or plc – no full points but caps. or lower case according to company’s preferred style.
- PVC – (polyvinyl chloride) upper case, no full points
- rms or r.m.s. – (root mean square) lower case but with or without full points (follow the author’s choice).
- UV – (ultraviolet) upper case, no full points
- viz. – (namely) roman with full point at end; precede by comma.
- Post-nominals – consistently with or without full points, e.g. B.Sc./BSc, Ph.D./PhD, D.Sc./DSc, C.Eng./CEng

<table>
<thead>
<tr>
<th>Closed up abbreviations</th>
<th>Spaced abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>6p</td>
<td>p. 22</td>
</tr>
<tr>
<td>6% (but 6 per cent)</td>
<td>6 per cent (but 6%)</td>
</tr>
<tr>
<td>25 °C</td>
<td>25 °C</td>
</tr>
<tr>
<td>vol. 2</td>
<td>vol. 2</td>
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<tr>
<td>15° N</td>
<td>15° N</td>
</tr>
<tr>
<td>5 mm</td>
<td>5 mm</td>
</tr>
<tr>
<td>8 a.m.</td>
<td>8 a.m.</td>
</tr>
</tbody>
</table>

Capitalisation
- Adopt a common-sense approach. Be consistent.
- It is usual to capitalise the first and all significant words of book, journal and newspaper titles.
- North, South etc. are capitalised if they are part of the title of an area or a political division, e.g. South West Africa, Western Australia, the West but not if they are descriptions in general terms, e.g. southern Scotland, the south of Scotland.
- world (no cap.)
- worldwide (no cap., one word) but World Wide Web
- Internet (cap.) but intranet (no cap.)
- First World War and Second World War (caps.)
- Middle East (caps.)
• Ampère (cap., accent) when talking about the physicist but ampere (no cap. or accent) for the unit of current
• Earth, Moon, Sun (cap. only in astronomical contexts, i.e. when referring to the planet, the satellite and the star respectively). For example, if ‘earth’ is used to mean ‘soil’, ‘moon’ is used in the phrase ‘full moon’ or ‘sun’ is used to mean ‘sunlight’ then they should be lower case. However, if the author is consistent and uses the terms with or without capitals unambiguously, retain the version supplied.

Chemical nomenclature
• The symbols for elements are set in roman type.
• Superscripts and subscripts are deployed as follows: \(^m\)X where \(m\) = mass number, \(^a\)X where \(a\) = atomic number, \(X^c\) where \(c\) = electrical charge and \(X^n\), where \(n\) = number of atoms per molecule. X is the element symbol not the element name.
• Chemical names should be spelt out wherever practicable, unless the symbolic formula is graphically useful; for example, ions are generally preferable as symbols.
• Isotopes should be written as \(^{14}\text{C}\) or carbon-14 as appropriate.

Cross references
• If there are cross references within the text, it is preferable to refer to a section number, e.g. ‘see section 2.4’, rather than use ‘above’ or ‘below’. If the text being referred to is in the same section then use ‘earlier in this section’ or ‘later in this section’. If the text being referred to is literally ‘above’ or ‘below’ it is okay to use these terms.
• It is preferable that ‘Figure’ is spelt out in the text but it can be abbreviated to ‘Fig.’ in footnotes.
• ‘Table’ is never abbreviated.
• Equations should be referred to in full at the beginning of a sentence but just as ‘(6.3)’ elsewhere, the parenthesis distinguishing it from a section number or bibliographical reference.
• ‘Chapter’ and ‘Appendix’ are usually abbreviated only in footnotes, to ‘Ch.’ and ‘App.’

Dates and times
• Decades are expressed as 1960s (not 1960’s or ‘60s). Century numbers are usually spelt out; the nineteenth century (adjective: nineteenth-century).
• Pairs of dates are usually elided to the shortest pronounceable form: 1976–82, 1914–18 or 1798–1810.
• Similarly: 24–28 May, not 24–8 May.
• ‘To’ may sometimes be better than an en rule if each date contains more than one element: ‘18 September to 19 January’ rather than ‘18 September–19 January’.
• Words are used for periods of time such as ‘it took him six months’, figures for exact measurements and for series of numbers.
• With the 24-hour clock use 19.45 to avoid confusion with years.
• Remember that 12.00 noon is neither a.m. nor p.m., as these mean ‘before noon’ and ‘after noon’. Midnight is 12.00 a.m.

Italics
• Italics are used for:
  • Titles of published books. Titles of chapters, articles and unpublished theses are roman in quotes. Preface etc. are roman without quotes
  • Titles of periodicals (journals and newspapers); but article titles are roman and in quotes
  • Names of ships, apart from such prefixes as HMS; but types of ship, aircraft and car are roman
  • Mathematical variables; but operators and chemical elements are roman
• Foreign phrases, not yet naturalised, in an English sentence; but roman for proper names such as institutions and streets
• Directions to the reader, e.g. see also in an index or above in a caption
• Emphasis, but should be used sparingly

Mathematics
• Vectors are traditionally distinguished from their scalar equivalents by the use of bold type. The Royal Society recommends the use of bold italic rather than bold roman because this more neatly ties up each vector with its corresponding scalar value.
• Where several brackets have to be used in a mathematical expression the sequence should be \((\{[(\ldots)]\})\) but if in doubt - be consistent.
• For further guidance on mathematical style refer to Quantities, Units and Symbols, 2nd edn, London, 1975 by The Symbols Committee of the Royal Society.

Numbers
• Use words for numbers up to and including ten, except in cases where the text involves a great deal of mathematics or statistics. Do not mix Arabic numerals and spelled out numbers in the same sentence.
• Spelt-out numbers such as twenty-one are hyphenated. Use figures to avoid a hyphen in an already hyphenated compound: ‘62-year-old man’, not ‘sixty-two-year-old man’.
• Numbers should always be spelled out at the beginning of a sentence. Vague numbers should also be spelled out, e.g. ‘For nearly three hundred years’.
• Use Arabic numerals, not words, for exact measurements, e.g. 12 km, and ages, e.g. 10 years old. But use ‘in his seventies’ and ‘in her thirtieth year’.
• Use a thin space, in preference to a comma, to separate numbers of four digits or more. However, if you have consistently used a comma, it will be left
• Percentages should appear in numerals, e.g. 23 per cent. Ideally the percentage sign (%) should not be used except in tables, figures or calculations. However, if you have consistently used % throughout the text, it will be left.
• Use ‘first, second, third’ not ‘firstly, secondly, thirdly’.

Proper names
• Use United States rather than America(n) wherever there is any possibility of ambiguity.
• Similarly England, Great Britain (England, Scotland and Wales), the United Kingdom (Great Britain and Northern Ireland), the British Isles (United Kingdom plus the Irish Republic) should be used accurately.
• Note that Holland is, strictly speaking, only the name of two provinces of the Netherlands.

Punctuation
Write in the British style.
• Parenthetical dashes should be typeset as spaced en rules – . Unless the parenthetical phrase is at the end of the sentence, check that there is a pair of dashes – not one or three – and that the second one is correctly placed. En rules for sense are usually closed up.
• Hyphenate only to avoid ambiguity, e.g. best known example/best-known example, little frequented place/little-frequented place.
• In the main text, use parentheses within parentheses, not square brackets within parentheses.
• The comma should be omitted before the final ‘and’ or ‘or’ in lists of three or more items: ‘red, white and blue’ not ‘red, white, and blue’. An exception should be made if the sentence is a complex one: ‘red, white and blue, and green banners fluttered in the wind’.
• Single quote marks are used in British style, except for quotes within quotes where double within single marks are used. Punctuation should be placed outside the quotation marks, unless the quotation is a complete sentence in which case the full point falls inside the quotation marks.
Units

- SI (Système International) units should be used. It may be convenient, however, to give imperial equivalents in parentheses when the SI figure is merely a direct translation of a simple imperial figure. For example:
  ‘A cable of 57.15 mm (2\(\frac{1}{4}\) in) diameter was used.’
- There may be instances where an author has used a non-SI unit throughout, e.g. atm or psi for pressure instead of N/m\(^2\) or Pa. To avoid errors being introduced it is okay to keep either atm or psi but not a mixture.
- The full names of units are given in lower case, even when they are derived from a proper name. Plural forms of full names (but not of symbols) may be used: 1 watt, 3 W, 3 watts.
- The use of ‘amp(s)’ should be avoided; the correct forms are ‘4 amperes’ and ‘4 A’.
- If the full names of units are used consistently then they don’t necessarily need to be changed to the abbreviation. Check that where units are abbreviated the correct SI unit symbols are used. For example:
  
  s for seconds (not sec)
  V for volts (not v)
  k for kilo (not K), therefore kg for kilogram
  K for kelvin (not °K)
  
  A (fine) space should separate the figures and the unit.
  
  For the division of units the index is better than the solidus. However, for simple cases only the use of the solidus may be adopted, e.g. m/s but J g\(^{-1}\) K\(^{-1}\) S\(^{-1}\). [Capital ‘S’ = siemens (electric conductance).]

Spelling

- Use British spelling. (American authors may use American spelling. Provided it is consistent).
- If an author has consistently used -ize spelling then there is no need to change to -ise.
- In British-style books the following should be spelt -yse, not -yze: analyse, catalyse, dialyse, electrolyse, hydrolyse, paralyse.
- Make a list of unusual words or those with particular hyphenation.
- Examples of IET English usage are:
  
  airflow (one word)
  analogue (but analog cf. digital, used in computing contexts)
  cooperate (one word);
  coordinate (one word)
  cross section (noun, two words)
  cut-off (hyphen)
  cut-out (hyphen)
  defence (not -se, but defensive, defensible)
  disc (recordings, e.g. compact disc); but disk (computers, e.g. hard disk)
  gamma ray (two words)
  gram (not gramme)
  infrared (one word)
  in situ (two words, italic or roman)
  life cycle (two words)
  lifetime (one word)
  metre (not -er)
  modelling (two ls)
  non-linear (adj., hyphen)
  offshore (one word)
  onshore (one word)
  online (one word)
• polyvinyl chloride (two words)
• power plant (two words)
• power station (two words)
• principal (first in order of importance) but principle (fundamental truth or proposition)
• programme (but program in computing)
• pro rata (not italic)
• self-contained (hyphen)
• socket-outlet (hyphen)
• timescale (one word)
• ultraviolet (one word)
• website (one word)
• X-ray (note hyphen; and cap X, lower case r)

Heads
• Mark all headings to have an initial capital for the first word and proper names only, except for book/magazine/journal titles. For example:
  1.1 The correspondence of Michael Faraday
• Delete all full points at ends of headings.
• All A, B and C headings should be numbered by chapter and the A and B heads should be listed in the contents. C heads can be listed in the contents but only if requested by the author.

1  Chapter head
1.2  A head
1.2.1  B head
1.2.1.1  C head
• D headings can be used but don’t number them unless specifically requested by the author. A string of five numbers is a little excessive!

Footnotes and endnotes
• Footnotes appear at the foot of the relevant page of text.
• Endnotes follow the appendices or text (or, more rarely, the relevant chapter) and are usually numbered in one sequence throughout each chapter. They should be headed ‘Notes’ and if all the endnotes are together the chapter number and title should appear as a subheading above the notes for each chapter.
• IF there are both endnotes and footnotes, the endnotes are keyed by number and the footnotes by symbol (usually in the sequence * † ‡ § || ¶) or letter, repeated in duplicate if necessary.
• Indicators in the text are less distracting if they are moved to the end of the sentence or to a break in the sense; although if the author is discussing specific words it may confuse the reader if the reference is moved. For aesthetic reasons, text indicators are placed after punctuation (except dashes), unless the reference is to a single word at the end of a sentence or a phrase in parenthesis.

Displayed material

Quotations
• Take short extracts (fewer than forty words) into the text unless the author has deliberately extracted for extra emphasis. Extract quotations of over forty words, marking them with a rule in the left-hand margin and indicating clearly where they begin and end.
• Displayed quotations have no quotation marks at the beginning and end, unless there is any possible ambiguity. Since displayed quotations have no quotes at the beginning and end, quotations within them will have single quotes.
• Leader dots should not appear at the beginning or end of a quotation unless the sense absolutely demands it. For an ellipsis within a quotation use three leader dots for a mid-sentence break, four if the break is followed by a new sentence. However, if author’s system is consistent it should be retained.
• New paragraphs within extracts should be closed up and the first line indented. If the text following an extract is the start of a new paragraph it should be indented.
• There is no need for quotes to be italic.

Equations
• It is generally clearer not to use punctuation after displayed equations.
• Numbered cross-referenced equations are consecutively by chapter, i.e. 1.1, 1.2, 1.3, etc.
• Mathematical equation numbers should be in normal type, ranged right in parentheses, i.e. (4.1). If more than one equation is allocated to an equation number, the number should be centred vertically. If an equation occupies more than one line, the number should be on the last line.
• Equations that are too long for one line should, if possible, be broken before an operational sign and not within brackets.
• Where displayed equations are part of a sentence, any linking words (such as and, therefore, thus) are part of the text and should not be displayed. However, modifying statements such as ‘for $x \leq 1$’ are often presented as part of a displayed equation, on the same line. In this case they should be separated by an em space.
• Make sure it is clear to the typesetter whether the line following the equation is a new paragraph or should start full out.

Panels or boxes
• Sometimes authors include extra bits of information that are separate from the main text, called panels or boxes.
• These should be numbered consecutively by chapter and cross-referenced in the text. However, if a panel is short enough to be place in-line – a definition for example – then it does not necessarily need to be numbered.
• If the author has simply placed the panels/boxes at the end of each chapter their location will need to be queried.

Tables
• Tables should be numbered consecutively by chapter, i.e. 1.1, 1.2, 1.3, etc.
• All tables should have a cross-reference in the text as they will not necessarily be placed in line.
• Captions should be above the table, be preceded by ‘Table 1.1’, have an initial capital for the first word and proper names only (except for book titles), and have no full point unless there is more than one sentence.
• Note: There may be occasions where it is appropriate to have a caption but no figure number, or even neither.
• Use ‘Continues’ at the bottom of a table to indicate that it continues onto the next page. Use ‘Continued’ at the top of the following page to indicate that it is the same table that has been continued.
• The column heading row should be indicated for the typesetter. Column headings should have an initial capital for the first word and proper names only. It is better to put the unit in the column heading than beside each number.
• Any notes should be placed below the relevant table. Notes can be indicated with superscript numbers or letters (if a table contains mostly numbers then use letters and vice versa), or symbols (* † ‡ § │ ¶).
• Longer text strings in columns should be aligned left. Decimal points should be marked to align vertically.

IET Academic Books Guide for Authors v1.0  Page 12 of 15
• See that the structure of tables is clear: for example whether two or three columns should be
grouped under one heading; this may be shown by a horizontal line (spanner rule) below the
shared heading.
• Horizontal rules should be retained only if they are required for clarity.
• Vertical rules in tables are almost always unnecessary; any essential ones that need to be
retained in complex tables should be identified.

Figures
• Figures should be and numbered consecutively by chapter, i.e. 1.1, 1.2, 1.3, etc.
• All figures should have a cross-reference in the text as they will not necessarily be placed in line.
• Captions should be below the figure, be preceded by ‘Figure 1.1’, have an initial capital for the
first word and proper names only (except for book titles), and have no full point unless there is
more than one sentence. Permissions/sources should be in square brackets and ‘after’ used if the
borrowed figure has been revised.
• Note: There may be occasions where it is appropriate to have a caption but no figure number, or
even neither.
• If the figures are separate, key them into the text by writing ‘take in Fig 2.5 near here’ or similar
in the margin. Please also mark on the figure where it belongs in the text.
• If appropriate, supply a complete list of captions for all figures, including the copy for any sources
or notes that need to be set with them. Check that sources are listed where appropriate.
• Edit the labelling on figures with an eye to overall consistency of spelling and presentation,
ensuring that the spellings of names and places in particular conform to usage in the main text.
• Graph axes should be labelled (incl. units where appropriate) and axis scales should be clear.

Appendices
• Appendices usually precede any endnotes or bibliographical references.
• Appendices to individual chapters usually run on from the end of the chapter, preceding any
references.

5. Digital Images Guide

Photographs (bitmap images)

File format
• The preferred file format for colour or greyscale photographs is TIFF (Tagged Image File Format).
This is the standard file format for high-quality image files and will preserve the colour and clarity
of images.
• However, if a photograph is supplied to you in another format such as JPEG (Joint Photographic
Experts Group) or EPS (Encapsulated PostScript) please pass this on to production without
resaving it.
• Please note that JPEG uses lossy compression to reduce file size. Excessive use of lossy
compression can seriously decrease image quality and a JPEG file is compressed further every
time it is saved.
• Photographs supplied embedded in a Word document aren’t acceptable.
Resolution and size

- Colour or greyscale photographs should be 300dpi (dots per inch). Images that are too low-resolution at their final print size will have to be resupplied to prevent quality loss.
- Photographs downloaded from the web will not be high enough resolution; the only exception being where a company has a library of photographs specifically intended for use in print.
- Approximate file sizes for uncompressed TIFFs at 300dpi:

<table>
<thead>
<tr>
<th>Print size</th>
<th>File size</th>
</tr>
</thead>
<tbody>
<tr>
<td>A4 (297x210mm)</td>
<td>25 MB</td>
</tr>
<tr>
<td>A5 (210x148mm)</td>
<td>12 MB</td>
</tr>
<tr>
<td>A6 (148x105mm)</td>
<td>6 MB</td>
</tr>
</tbody>
</table>

Photoshop

It is generally best to pass photographs on to production without altering or resaving them. However, if you have access to Photoshop here are a few points to watch.

Resolution and size

If files are resized to 300dpi then this should be done without using resampling – this will change the image size and resolution without changing the number of pixels in the image. Therefore, as the resolution increases the print size will proportionally decrease – but in a completely non-destructive way (see opposite).
Below is the Image Size dialogue box for a single photograph. On the left the print size is A4 (210x297mm) and the resolution is 150dpi – not print quality. On the right the print size is A5 (105x148.5mm) and the resolution is 300dpi – print quality. Note that the pixel dimensions remain the same and therefore the image has not been resampled.

**Compression**

Adobe Photoshop allows you to apply LZW (Lemple-Ziv-Welch), Zip and JPEG compression within the TIFF format while retaining the .TIF file extension: only use the former two **lossless** methods (preferably LZW) to avoid accidental lossy compression. Although it is not advised, if you wish to specifically use JPEG compression, use the overt .JPG format.

**Illustrations (vector graphics)**

**File format**

- Graphics drawn in Adobe Illustrator or Macromedia Freehand should be supplied as EPS (Encapsulated PostScript) files. This format supports transparent backgrounds and will preserve the colour and clarity of images.
- Illustrations drawn in other applications such as Word or Powerpoint should be supplied as .doc or .ppt files.
- If an illustration is available only as a PDF please supply the file without cropping or altering it in any way.

**Creating illustrations**

When creating illustrations from scratch in Adobe Illustrator or Macromedia Freehand please make sure
a) all black (particularly text and thin lines) is pure (or process) black not rich (or four-colour) black,
b) all black (particularly on non-white backgrounds) is set to overprint.