



Document preparation rules — What makes the rule?

1 Styles

The character and paragraph styles predefined in the ISO templates shall be used in order to avoid the reformatting of documents at later stages. Authors supplying PDF files destined for POD should also use the ISO templates to create the source document.

Working with styles requires a certain discipline and working habit by the author, but these are well compensated by the benefits derived.

One of the benefits of using styles is consistency throughout the document and an economy of effort on the part of the author since all attributes of a given style are applied to each element marked with that style. It is far easier and faster to reformat a document prepared with styles than one in which the formatting attributes have been specified for each element on a one-by-one basis.

Any document created with a given template inherits the styles that come with that template. Styles can also be imported from templates or other documents.

Within the ISO standards community, the use of the ISO templates (which include a list of styles which correspond to the most commonly used elements in standards) ensures that electronic files can be processed easily by the ISO Central Secretariat and other members of the community, and may be converted to a different word processor format with a certain guarantee of success.

Another benefit is the ability of extracting structural information from the document. This allows for the importation of a particular document format to SGML which gives added value to the document (e.g. database extractions, validation of structure, etc.). Text processing files received based on the ISO templates are imported automatically into the ISOCS SGML system. However, for a conversion process to be successful it is essential that the styles have been applied consistently.

2 File structure

Word processing tools have a large number of features, although a small subset of these is sufficient for producing high-quality documents. The general principle in producing draft standards should be to keep things as simple as possible, and to avoid sophisticated formatting options except where they really add value to the comprehension of the text.

3 Fonts

If an author uses a font which is not available on the recipient's machine, the latter will have to specify a substitution which often does not yield satisfactory results. Therefore, fonts other than those specified in Figure 9 b) of the [ISO eServices Guide](#) shall be used only when necessary. In the latter case, the file originator shall either embed the font in the file (True Type fonts) and/or send a copy of the font for installation on the recipient's machine and shall indicate he/she has done so. Take care, however, not to infringe the licensing restrictions for the use of certain fonts.

4 Colour

It is easy to create a word processing or PDF file containing fonts and other elements in a multitude of colours, but on printing there are three options:

- use of a colour printer;
- normalization of the colours to pure black and white, in which case all contrast between the various colours used will be lost;
- replacement of the colours by various shades of grey, in which case any shading less than grey-25%, particularly if certain patterns have been employed, will not necessarily print clearly and generally will not reproduce well.

Most users do not have colour printers freely available, and the cost of printing in colour is greater than printing in black and white and needs to be justified. Therefore, colours shall be used only where necessary. The file originator shall indicate that colour has been used in the file and shall provide justification for having done so.

These requirements also apply to graphics.

5 Shading

It is essential that drafts and published standards be prepared in such a way that they can be reproduced economically by all users. Although electronic delivery is now common place, most users will want or need to print the electronic file and therefore it is essential that this file be optimized for printing on commonly available office printers as well as on other printing equipment (most of which will use screening technology). Therefore the following guidelines shall be respected.

The use of shading in tables and objects shall be avoided unless it is considered necessary to clarify the intended meaning. For example, the use of shading to identify a table heading is not necessary since the use of bold characters serves equally well to highlight the table heading. The use of shading within an object to identify, for example, a recommended path amongst a multitude of paths may be necessary.

Where grey shading is necessary, note that the optimum shading for both tables and objects is "Grey-25%". For objects, a solid "Fill" of "Grey-25%" shall be used instead of "Patterns".

The use of colour shading shall be avoided unless necessary. Where necessary, the file originator shall indicate that colour has been used in the file and shall provide justification for having done so.

These guidelines do not apply to mechanical engineering drawings produced on CAD systems.

6 Borders

Dashed, dotted and dashed-dotted borders (especially those with a very small pattern) in Microsoft Word create very voluminous PS and PDF files and thus are to be avoided. Instead use borders with a solid (continuous) line.

7 Formulae

The equation editor supplied with most word processors allows the easy composition of fractions, exponents, integrals and other mathematical elements, while ensuring proper and consistent fonts, sizes and spacing of the elements.

A number of general parameters affect the display of the equation elements. These parameters are specific to the user's environment and can be set from the menu bar at the top of the screen when the user is in the equation editor mode. To match the ISO style, set these parameters to the values given in Figure 9 of the [ISO eServices Guide](#). Once they have been set, they remain valid during subsequent sessions.

The Equation Editor should be used for *displayed* formulae and equations. However, since equations made with this editor are inserted in the document as objects, its use is not recommended for simple mathematical expressions and symbols *in line* in the text: these should be entered using simple ordinary keyboard operations. For example, it is not necessary to use the Equation Editor to put " $x = \theta + 1$ " in a line of text. However, a more complex expression,

such as $\int_x^{\infty} \frac{e^{-t}}{t} dt$, would require the use of the Equation Editor.

ISO/CS uses MathType 4.0 for the creation and correction of equations. This product is the professional (or full-featured) version of the Equation Editor that comes with Microsoft Word, Corel WordPerfect and other popular word processing tools. It provides an upgrade to the capabilities found in Equation Editor. However, Microsoft Equation, CorelEquation and AppleWorks Equation cannot edit equations created by other equation editors. Therefore, the equations in files prepared by the ISO/CS appear as graphical elements when MathType is not installed, the integrity of the equation being thus preserved. Information about MathType is available from <http://www.mathtype.com/en/>.

8 Graphics

Graphics shall follow the rules given in the [ISO/IEC Directives, Part 2](#), and the [ITSIG specification for the preparation and exchange of graphics](#).

Item reference descriptions, figure notes and figure footnotes shall not be within the graphics file but placed within the textual part of the document.

Only professional drawing tools shall be used for the production of drawings.

In our experience, EPS and TIFF are the best graphics formats for importation into Microsoft Word documents. Most computer-assisted drawing systems can save files in one or both of these formats.

Image files shall not be embedded into the text file but a link made to the source file. Unless such discipline is practiced, deviations between the copy of the image used in the document and the source file itself (stored in the file owner's system or maybe at the national standards body's drawing office or in the ISO graphics pool) may result, increasing the risk that errors will be incorporated if the document is updated or revised.

Microsoft Word creates relative links when the Word file and the EPS or TIFF files are in the same folder at the moment when the links are created. If the Word and graphics files are in two different folders, Word creates absolute links.

It is recommended to create relative links for documents that are likely to be transmitted to other people since, when transmitting the folder containing both the text file and the graphics files, the links will remain intact for both the sender and the receiver. Detailed instructions are provided in the [Template reference manual](#).

Copies of images shall not be edited or formatted using the word processor or other image processing programs. Any necessary modifications shall always be made to the source files themselves using the application that created those source files.

In this context the terms edit and format include the actions cropping, extending, scaling (i.e. size enlargement or reduction), and patching the image with text frames in order to correct or translate particular portions of text or values. The rotation of images on landscape pages is not considered to be editing or formatting in this context since this has to be done using word processing tools as graphics shall be drafted in the upright orientation only.

9 Insertion of spreadsheet tables and charts

It can be helpful to use the functionalities of a spreadsheet program to create tables or charts, or to compute data. However, in order to ensure the reusability of word processing files and to ensure that they are not unduly overloaded, except in the drafting stages of document where all recipients of the file are known to be using the same software, it is essential that tables made with a spreadsheet program are not inserted as graphics or as objects in the word processing file. Instead, insert them as a table or plain text [in the Edit menu, select Paste Special and select Formatted Text (RTF) or Unformatted text] and then transform all the data to a table (if not already done so) and apply the correct styles to the various elements of the table. If you encounter problems in achieving the desired table format using the word processor, please contact the [ISO Central Secretariat](#) for advice.

10 Hyperlinks

The use of hyperlinks (to make a cross-reference within the document or a link to a file on the World Wide Web or in a given structure) is permitted, and recommended in the case of cross-reference to automatically numbered items within the document. The file originator shall, however, ensure that all links are valid and active.

11 Best practices

Guidance on how to avoid introducing potential problems in word processing files is given in the document [10 tips to make your file more system independent and less work if it needs to be revised](#).

Files shall preferably be saved in the native format of the word processing tool that was used to create them. For example, with the extension .doc for files prepared using Microsoft Word.

If you use a revision or editorial tracking feature (such as Microsoft Word's "Revisions" or "Track Changes" command), ensure that files submitted to the ISOCS for preparation of drafts or final drafts are the final version, that all changes have been accepted or rejected as necessary and the file contains only one version of the document. Furthermore, remove all "hidden text" and "comments", and any other nonprinting text of any sort.