The ISO Central Secretariat uses the following applications for standards production:

— Microsoft Office Word 2003 and FrameMaker+SGML 7.0 for word processing;

— Adobe Acrobat 6.0 Professional, together with the plugins Compose 4.2 and Enfocus PitStop Professional 6.5;

— AutoCAD 2005 for the production of the majority of graphics files;

— Photoshop 8.0.1 for photographs and images.

The following requirements have been drawn up with a view to achieving maximum compatibility between files submitted and the tools used in the standards production chain at the ISO Central Secretariat. Compliance with the requirements will help to avoid delays. Note that the requirements vary depending on the type of document (e.g. International Standard, Technical Report, etc.), the production stage of the document (e.g. DIS, FDIS, etc.) and the production method used.

The ISO Central Secretariat will always ask for the preferred formats indicated in this document. If non-revisable graphics files are submitted but the graphics appear to have been prepared using a CAD software, we will request the source files. Therefore, please make every effort to provide us with the source file in the first place. If, meanwhile, you are unable to do so, please state this clearly when submitting your files. If you wish to provide any format not specifically mentioned, or if you have any special requirements for publication, please contact the ISO Central Secretariat to agree details.

The document Elements to be provided when submitting drafts to the ISO Central Secretariat provides complementary information of a procedural nature.

1   General requirements

Files shall not be protected by *passwords* or by any other means. They shall not contain *macros*.

Specify *filenames* to be as meaningful as possible, e.g. ISO-DIS-3456-2002-E. [The automated (wizard) ISO template attributes a meaningful filename based on the administrative data entered in the STD manager of the template.] To differentiate between different versions of a draft, add extra information, e.g. add a version number.

As a practical limit for filenames use a maximum of 32 Latin characters:

— permissible characters: the numbers 0 to 9, the upper case letters A to Z and the lower case letters a to z without diacritical marks, and the symbols - (hyphen) and . (period);

— non-permissible characters: \ / : * ? " < > | ! + % _ and nor should the name include white space.

For further information, see the ISO eServices Guide (http://www.iso.org/isoeservicesguide), 2.3.3.5.2. Where it is intended that a document be published on CD-ROM or DVD, it is necessary to comply with the specific rules provided in Clause 5.

It is recommended that useful information be entered in the *document properties* (summary information) or similar. Do not insert in the file (e.g. as annotations or hidden characters) information necessary for the further processing of the file; give this information in the accompanying documents.

For delivery, the files may be compressed (the preferred utility is Zip; the files shall not be password protected). Self-extracting executables shall be avoided unless prior agreement has been obtained from the ISO Central Secretariat.

The sender is requested to ensure that all files, and their supports if applicable, are *virus-free*.

Where *links* are used, respect the use of upper and lower case (because of Unix), and ensure that the separators are forward slashes "/" and not backslashes "\". For links within documents (e.g. for links within a compound document to different objects within the document, and for links within a document to its electronic inserts), use relative links. For links to external objects use absolute links.

All links shall be valid and shall be to sites that are expected to remain valid for the expected life of the document (see the ISO/IEC Directives, Part 2, 2004, 6.4.2, for further information). If it is required that links are active, they shall be activated in the files submitted. Do not specify links to external entities or sites having restricted access or requiring a password.

For *Word documents* (including embedded objects), to avoid memory saturation during treatment, and to take into consideration the size of the file once converted to PS, a practical limit of 2,5 MiB (approx. 2560 kiB) per file is recommended.

The ISO Central Secretariat has been asked to restrict the *file size of products* (whatever the format: PDF, Word, zipped PDF, zipped Word) to a limit of around 20 MiB per file to facilitate downloading of the files by clients. Therefore any documents and electronic attachments submitted which do not respect this limit will need to be subdivided to meet it.

For each document one or more files shall be submitted. It is not acceptable to submit a single file for more than one document (e.g. one file for several parts of a document).

2 Revisable files

2.1 Text files

Formats		
Preferred	—	Microsoft Office Word 2003
	—	FrameMaker 7.0
Also acceptable, in order of preference	—	Versions of Word other than version 2003
	—	Versions of FrameMaker other than version 7.0
	—	RTF
	—	Common word processing formats, e.g. WordPerfect
	—	HTML and XHTML, by prior agreement with the ISO Central Secretariat (see Clause 3 for detailed information)
Unacceptable	—	Files specific to a given printer
	—	Files prepared using a publishing system (e.g. Ventura, PageMaker, LaTeX, etc.)
Fonts	—	Use only standard fonts: Arial, Helvetica, Times New Roman, Times, Symbol
	—	For documents requiring special fonts, inform the ISO Central Secretariat of their use and, if soft fonts have been used, include a copy of them
Tables, incl. spreadsheets etc.	—	By preference, create tables using the table functionality of your word processor.
	—	If the source of the data has been prepared using a spreadsheet software, unless it is essential that the data remain in this format, do not insert such tables as images or objects. Instead, insert them as a table or as text in the text file (for the way in which to proceed, consult the on-line help or user manual of your word processor), then convert all the data to a table and apply the appropriate styles to the different table elements.
	—	If the source of the data has been prepared using a spreadsheet software and it is essential that the data remain in this format, provide this information when submitting the document. Remember that the formatting of the data concerned will be a function of the formatting capabilities of the spreadsheet software and not that of the text processing software. In the event that no special instructions are provided, data in a spreadsheet format will be converted to a table.

Figures	— Include the graphics files separately from the text
	— Do not embed the graphics files in the word processing file; you may insert a link to them, but make sure that the function that saves a copy or picture of the graphics file in the word processing file is deactivated (for detailed information on how to do this using Microsoft Word, see 5.3.10.2.4 in the Reference manual for the STD template in the templates section of the ISOTC portal)
	— Follow the rules given below in **2.2 Graphics files**
Table of contents, indexes, cross-references	Automatic generation is preferred but be aware that
	— for any software other than Microsoft Office Word 2003 and FrameMaker 7.0, ISO cannot guarantee to be able to reuse them
	— for different linguistic versions of the same software the field names may not be recognized, and the file extensions may be incompatible
Revision marks	— Turn off the Track Changes option
	— Review all changes, and accept or reject them as required (in Microsoft Office Word 2003: display the Reviewing toolbar, use the appropriate buttons to accept or reject the changes) before submitting the file
Comments	— Remove highlighting before submitting the file
	— Remove comments before submitting the file
Versions	— Send only the most recent version. If versioning was used, delete all obsolete versions (in Microsoft Office Word 2003: File, Versions, ...) before submitting the file
Paper size	— A4 (in the Page Setup command)
Templates	— Use the appropriate version of the ISO templates, the current versions of which may be obtained from the section ISO templates for drafting standards of the ISOTC Portal
File preparation	— See the ISO eServices Guide (http://www.iso.org/isoeservicesguide), 2.3.3.3

NOTE   Additional guidance is provided in the ISO eServices Guide (http://www.iso.org/isoeservicesguide), the document Document preparation rules — What makes the rule? and the section *Writing Standards* of the ISOTC portal (http://isotc.iso.org/isotcportal/index.html).

2.2   Graphics files

Black-and-white figures — Formats

Preferred	— DWG or DXF files (in AutoCAD 2005 format or less)
Also acceptable, in order of preference	— The Central Secretariat can also reuse, but with less efficiency, application files created in a Macintosh or Windows environment with Adobe Illustrator, Corel Draw or Visio
	— If only non-revisable formats are available, EPS or TIFF files are acceptable only if the Central Secretariat can use them. Given that this is frequently not the case owing to technical restrictions, their acceptability is subject to confirmation on a case-by-case basis
Unacceptable	— Aldus Freehand
	— Graphics generated using the drawing capabilities of word processing softwares (e.g. Microsoft Word picture, Paintbrush picture, …)
	— JPEG and WMF files

Special instructions for PostScript files	— PostScript files that are not encapsulated PostScript (EPS) are not acceptable
	— Note that PostScript files can often be imported into another graphics utility, such as Adobe Photoshop, and resaved as an EPS file. Such EPS files are acceptable for submission
	— If the graphics software used allows compression at the time of output as an encapsulated PostScript (EPS) file, do not use this option. Instead, output the file without compression and then, if necessary, use separate compression software

Photographs	
Preferred	— Original photographs
	— TIFF files of appropriate quality
Also acceptable	— JPEG files
Unacceptable	— Scanned photographs

Colour figures	— Colour figures shall be used only where necessary for the understanding of the figure
	— They should be submitted as CMYK EPS, DCS or CMYK TIFF. RGB EPS and RGB TIFF files have been found not to reproduce well and should be avoided
	— A reference printout or a RAL (or other) reference shall be submitted to enable proper tone matching

| **Templates** | — AutoCAD users: use the ISO template which may be obtained from the section *ISO templates for drafting standards* of the ISOTC portal (http://isotc.iso.org/isotcportal/index.html) |

| **Size, content, fonts, scanning resolution, etc.** | — See the document ITSIG specification for the preparation and exchange of graphics |

NOTE   Additional guidance is provided in the FAQ on graphics formats and files, the ISO eServices Guide (http://www.iso.org/isoeservicesguide), the document Document preparation rules — What makes the rule? and the the section *Writing Standards* of the ISOTC portal (http://isotc.iso.org/isotcportal/index.html).

3   HTML and XHTML files

HTML documents shall contain a DOCTYPE entity, reference to the DTD used and a definition of the caracter encoding. Unless it is necessary to use a different encoding, the following <meta> tag shall shall be declared inside the <head>:

    <meta http-equiv="Content-Type" content="text/html;charset=utf-8">

If another character encoding has been used or is necessary, please inform us and provide any necessary information.

In XHTML documents, the character encoding should preferably be defined in the xml declaration in the beginning of the file, e.g.

    <?xml version="1.0" encoding="UTF-8"?>

Before being sent to the ISO Central Secretariat, all files shall be validated (for example using the W3C validator http://validator.w3.org/), and all errors resolved unless there is a justified reason for not resolving them. In the case where validation errors remain, the justification for them shall be provided in the accompanying documents when the document is submitted.

The HTML document shall be tested on as many browsers as is feasible, and preferably on at least one version of Netscape Communicator and one version of Internet Explorer. All hyperlinks within the document shall be validated. Many users like to make hard copies of Web pages and any hardcopy should be fairly easy to read; it is recommended that each page be printed and inspected at least once. Because the formatting is controlled by the

local browser and environment it is not possible at this time to create pages that create identical hard copies for every environment.

All HTML and XHTML documents are published on CD-ROM or DVD. See Clause 5 for the respective rules.

The ISO Central Secretariat does not at present have an official style definition for standards published in HTML or XHTML. Authors wishing to add style information to their documents are requested not to embed such information in the document but to provide it as a separate file (e.g. a cascading style sheet) and to link the style sheet to the document file using the LINK element.

4   Files for direct use and reference copies

PDF files are used directly at the DIS stage and in certain cases (by prior agreement with the ISO Central Secretariat) at the publication stage.

Reference copies are necessary to identify any problems created in revisable files by differences in the IT environment of the sender and the recipient. Examples of such problems include font substitution, differences in layout and pagination, validity of links between different objects, etc.

A reference copy shall be representative of the complete document. Accordingly a reference copy shall contain all figures and tables in the desired location, and not as separate files. A reference copy shall be provided for each language version of the document.

Formats

Preferred	— PDF (up to version 1.5 with compatibility level 1.3)
Also acceptable, in order of preference	— Versions of PDF up to 1.5 with compatibility level 1.3
	— TIFF or file produced by scanning, but only acceptable as a reference copy
Unacceptable	— Paper

5   Rules for documents intended to be published on CD-ROM or DVD

For documents intended to be published on CD-ROM or DVD it is necessary to take into consideration the rules specified in ISO 9660, *Information processing — Volume and file structure of CD-ROM for information interchange*. In the following, it has not been attempted to respect ISO 9660 to the letter but to list what are considered to be practical rules.

a) Authorized characters:

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

0123456789_

b) Length: 30 characters maximum (separators and extensions included).

Note that the only non-alphanumeric character authorized by these rules is the _ (underscore) whereas the only non-alphanumeric characters authorized by the rules for the naming of files (see Clause 1) are the - (hyphen) and the . (period). The fact that different non-alphanumeric characters are permitted can lead to the need to change the names of files to enable a CD-ROM/DVD to be burned and this will in turn affect any links between files; sometimes it is necessary to resort to zipping one or more files to avoid the problem. Therefore, for documents for which there is a complex structure with multiple files and/or links, it is highly recommended to provide the ISO Central Secretariat with full details as soon as possible so that an agreement can be reached on the publication details.

Files that supplement a document (electronic attachments) may be used whenever necessary. They may be in any appropriate format. Such files are under the responsibility of the TC/SC. When submitting the document the secretariat shall ensure that full details concerning all electronic attachments are provided including the following:

⎯ instructions concerning their intended use: these shall be provided in a Readme file in ASCII format;

⎯ information concerning the file structure required;

⎯ information concerning any restriction to zipping;

$-$ information concerning whether the file should be made available on CD-ROM or DVD, or on a web site.

Links from the document to the electronic attachments shall be relative.

Compound documents shall be accompanied by

$-$ instructions concerning their intended use: these shall be provided in a Readme file in ASCII format;

$-$ information concerning the file structure required;

$-$ information concerning any restriction to zipping;

$-$ information concerning whether the file should be made available on CD-ROM or DVD.

Links to different objects within compound documents shall be relative.

6 Transmission

6.1 Means of transmission

Preferred	$-$ Submission via the ISOTC portal

It is preferable to compress (zip) files.

When technical considerations prevent the use of the ISOTC portal, submission is possible via e-mail to projects@iso.org or by snail mail on an appropriate medium (see 6.3).

6.2 Information to be provided

The following information shall be provided with each dispatch:

1) document reference number and stage;

2) list of the files sent, including any electronic attachments;

3) completed form Dispatch of electronic files (this information may be repeated in a Readme file).

In the case of e-mail submission, indicate the ISO reference number in the subject field. If a duplicate copy on diskette or disk has also been sent by post, please state this in the e-mail message.

Disks and diskettes shall be labelled to give the document reference number, document stage, and serial number of the disk/diskette if the files are split over two or more disks/diskettes.

6.3 Media — Accepted formats

Accepted diskettes: 3½ in

Accepted disks: CD-ROMs, DVDs, Jaz and Zip disks

The media formatting and filing system shall be DOS/Windows compatible.